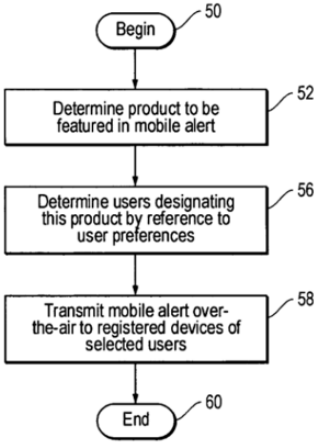
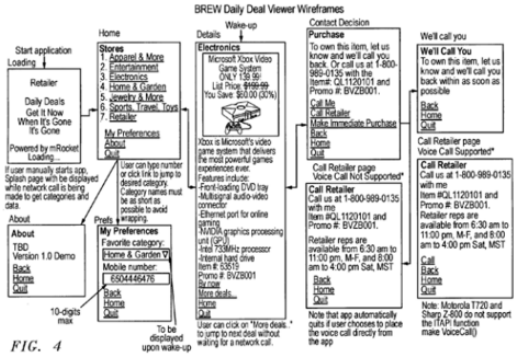
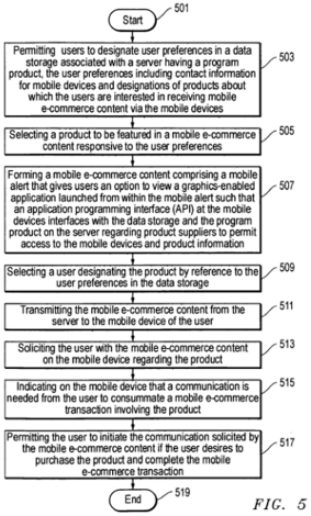
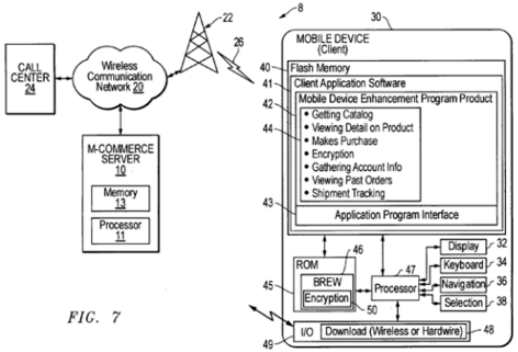
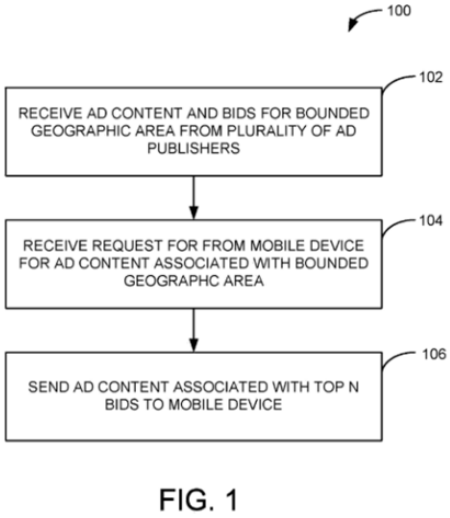
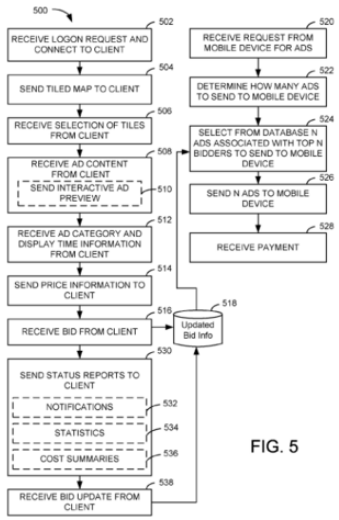
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| |  <br>*FIG. 2*<br>Sanctis ’837 at Fig. 2.<br>  <br>*FIG. 4*<br>Sanctis ’837 at Fig. 4. |

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| |  <br>*FIG. 5*<br>Sanctis ’837 at Fig. 5.<br>  <br>*FIG. 7*<br>Sanctis ’837 at Fig. 7.<br>“ In view of the foregoing and in accordance with various embodiments of the present invention, selected wireless mobile e-commerce (hereinafter, “m-commerce”) content, such as product or service information, is |

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| | transmitted from a server to a mobile device, such as a mobile telephone or personal digital assistant (“PDA”). In one embodiment, for example, the m-commerce content is transmitted in response to an explicit user request for communication of the m-commerce content. The user is permitted to view an item on his or her mobile device and prompted to make a purchase (e.g., via a “buy” key or selecting an icon or toolbar on the mobile device). In another embodiment, the m-commerce content is “pushed” to the mobile device in the absence of a specific request. For example, such solicitations may occur multiple times per day, prompt the user to browse various “departments” or categories of goods or services, walk a user through a form for shopping, or combinations thereof.” Sanctis ’837 at [0008].<br><br>“The e-commerce content received at the mobile device 30 is preferably presented within display 32 in textual or graphical format in conjunction with an indication of a communication need to consummate an e-commerce transaction.” Sanctis ’837 at [0033].<br><br>“FIG. 2 illustrates a high level logical flowchart of a process by which the m-commerce server 10 transmits e-commerce content to mobile devices in a mobile alert in accordance with one embodiment of the present invention. The illustrated process can be executed by the m-commerce server 10 with or without administrative intervention, and can further be executed periodically, for example, daily or weekly. Hereafter, for ease of description, it will be assumed that the mobile alerts feature products rather than services. It will be appreciated by those skilled in the art, however, that the present invention is also applicable to mobile alerts featuring services.” Sanctis ’837 at [0037].<br><br>“The process then passes from block 56 to block 58, which illustrates the m-commerce server 10 transmitting an advertisement for the featured product to the mobile devices 30 selected at block 56. The mobile alert preferably includes a description of the product, the price of the product and, optionally, an image or picture of the product and/or the quantity in stock. The mobile alert preferably also includes an indication of a communication that the user can initiate from the mobile device 30 in order to facilitate purchase of the featured product. The mobile alert can be transmitted in a variety of different formats depending upon the bandwidth of the communication technology and the capabilities of the target mobile devices. For example, if the target mobile devices 30 are conventional mobile telephones, the mobile alert can include a Short Message Service (SMS) message. If, however, the target mobile devices are third generation (3G) binary runtime environment for wireless-enabled (BREW-enabled) 46 (such as store in read only memory (ROM) 45 in communication with a processor 47) mobile telephones, as understood by those skilled in the art, the mobile alert can include a graphics-rich “page” in the product database 14 that describes the featured |

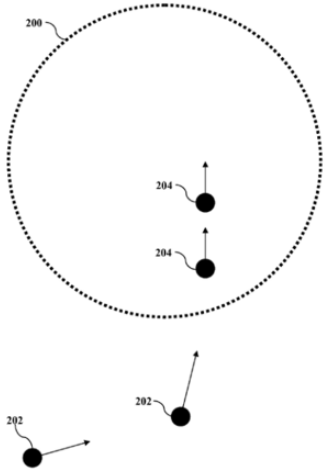
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| | product(s). Following the transmission of the mobile alert to the selected users, the process depicted in FIG. 2 terminates at block 60.” Sanctis ’837 at [0040].<br>  <br><br>FIG. 1<br>Bussmann ’294 at FIG. 1. |

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| |  <br>FIG. 5<br>Bussmann ’294 at FIG 5.<br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. |

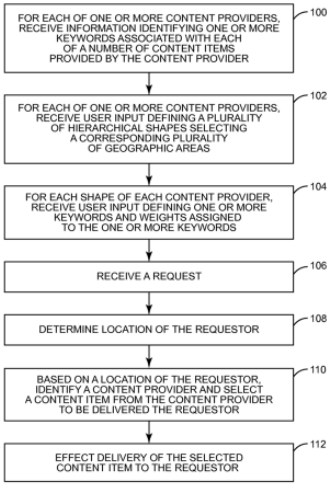
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| | Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“Continuing with the figures, FIG. 5 shows a method 500 of operating an advertising server. Method 500 illustrates various details of method 400 from the advertising server's point of view, where communications with an advertising publisher client are shown in a left-hand side of the figure and communications with a device are shown in a right-hand side of the figure. Method 500 first comprises, at 502, receiving a logon request from an advertising publisher client, and connecting to the client. Next, at 504, a tiled map is sent to the client to allow the advertising publisher to select tiles in which it is interested in having its advertising content distributed.<br><br>After sending the tiled map, a selection of tiles on the map is received from the client at 506, and advertising content is received from the client at 508. As described above, in some embodiments, an advertising server may be configured to allow an advertising publisher to view a preview of advertising content in the tiles selected by the advertising publisher. Therefore, method 500 comprises, at 510, sending an advertising content preview to the client. In some embodiments, the advertising content preview may be an interactive preview configured to allow an advertising publisher to view an item of advertising content on different types of devices, at different levels of zoom, panning, etc. to see how the item of advertising content will appear to a user in various specific geographic locations. In this manner, an advertising publisher may be able to tailor an appearance of an item of advertising content to a desired appearance in a specific device and/or location.<br><br>Method 500 next comprises, at 512, receiving advertising category and advertising display time information from the client. Examples of category and display time information are discussed in detail above. While the |

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| | depicted embodiment shows the category and time information appearing in a later step than the receipt of the ad content and selection of tiles, it will be understood that these items may be received in any suitable order.<br><br>Upon receipt of the selection of tiles, ad content, and category and time information, method 500 comprises, at 514, sending price information to the client, and then at 516, receiving a bid from a client. The bid is then stored in an updated bid information database, as indicated at 518. It will be understood that processes 502-518 may be performed by a plurality of different publishers on a continuous, rolling basis as clients wish to submit bid information. Further, the advertising server also may interact with requesting devices on a continuous, rolling basis to provide items of advertising content to the devices. An example of a transaction with a device such as a PND or the like is shown in FIG. 5 at 520-526. First, at 520, method 500 comprises receiving from a device a request for advertising content. Upon receipt of this request, it is determined, at 522, a number N of items of advertising content to send to the device. The number N of items of advertising content may vary depending upon a number of factors, including but not limited to, a type/brand/model of device that sent the request, a current level of zoom currently shown on the device display, and/or whether any advertising publishers have paid for exclusive advertising rights to a tile that is within the relevant geographic area.” Bussmann ’294 at [0035]–[0038].<br><br>“The central facility 60 may obtain media exposure data, consumption data, media monitoring data, location data, motion data, and/or any other monitoring data that are collected by the media monitoring devices such as, for example, the PPM 30. In the illustrated example, the PPM 30 may transmit data to a local relay device 64 which, in turn, transmits data to the central facility 60 to extend the range of the examined or monitored geographic area. The example system 10 may be provided with multiple local relay devices 64 that serve as access points for the PPM 30 and other devices to the network 62 and the central facility 60.” Mello ’479 at [0032].<br><br>“After the web event data collector 166 stores the query string search criteria and associated information (block 510) or if the web event data collector 166 determines that a query has not been submitted (block 508), the media capture data collector 168 (FIG. 3) determines whether a media signal (e.g., an audio signal, a video signal, an RF signal, etc.) has been captured (block 512). For example, the media signal may be an audio signal associated with an advertisement presented by the audio device 16 or the video device 18 (FIG. 1), a video signal presented by the video device 18 (FIG. 1), or an RF signal emitted by the RF transceiver 22 of the billboard 20 (FIG. 1).<br><br>The media capture data collector 168 then determines whether the captured media signal includes a code (block 514). If the captured media signal includes a code, the media capture data collector 168 extracts (or |

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| | creates a copy of) the code (block 516). If the captured media signal does not include a code (block 514), the media capture data collector 168 generates a signature of the captured media signal (block 518). Alternatively, a signature can always be collected regardless of whether a code was collected. After the media capture data collector 168 extracts a code (block 516) and/or generates a signature (block 518), the media capture data collector 168 stores the media representation information (e.g., the code and/or the signature) (block 520) in the media data log file 184 (FIG. 3).<br><br>After the media capture data collector 168 stores the media representation information (block 520) or if the media capture data collector 168 determines that a media signal has not been captured (block 512), the consumer purchase data collector 170 determines whether any input data relating to potential purchases have been received (block 522) (FIG. 5B). In the illustrated example, the potential purchase data is data indicative of a product or a service such as, for example, bar code information read using the bar code reader 136 (FIG. 2) or RFID information received via the RF transceiver 134 (FIG. 2) in response to the monitored person 32 scanning a product or a service document. If the consumer purchase data collector 170 determines that potential purchase data has been received (block 522), the consumer purchase data collector 170 determines whether the monitored person 32 purchased the product or service corresponding to the received potential purchase data (block 524). For example, the consumer purchase data collector 170 may receive subsequent information or the potential purchase information received at block 522 may have a corresponding purchase confirmation flag indicating that the monitored person 32 purchased the related product or service. If the consumer purchase data collector 170 determines that the monitored person 32 made the purchase (block 524), the consumer purchase data collector 170 stores the purchase information (block 526) in association with a corresponding timestamp and location identifier in the purchase data log file 186 (FIG. 3).” Mello ’479 at [0082]–[0084]. |

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| |  <br>FIG. 2A<br>Busch ’815 at Fig. 2A.<br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, integration of location data with customer relationship management systems and systems to determining retail |

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| | business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br><br>“The act of processing the data involves first comparing the data set to a collection of other data sets associated with the user and then determining a set of previously traveled courses including at least a most likely course of travel. Alternatively, the act of processing may involve comparing the data set to a database of businesses and their locations, and then determining a set of likely locations that have previously been visited by the user of the mobile device.” Busch ’815 at [0272].<br><br>“In some forms of the invention, the anticipated route 402 or destination information is referenced against a database of targeted content that includes business locations and information in order to determine if there is any content of interest to the user of the mobile device along the anticipated route 402. If there is appropriate targeted content, this information is sent to the mobile device in order to inform the user of the mobile device of business and events of interest that are easily accessible from their current route. For purposes of illustration and without limitation, referring again to FIG. 5, if the user frequents office supply stores, an advertisement indicating that Office Max 510 on the West side of Hayden Road 500 may be sent to the mobile device to be displayed at an appropriate time.” Busch ’815 at [0355].<br><br>“The likely or anticipated route that the user of the mobile device is currently taking may be based upon their current location information and the historical location information. Based upon this information, targeted content is sent to the user. The targeted content is any type of information including but not limited to advertisements, traffic information, danger warnings, or any other type of information that pertains to a geographic location.” Busch ’815 at [0357].<br><br>“ If the user is moving slowly, many elements of targeted content associated with the nearby area are sent to the mobile device or retrieved from the memory of the mobile device. If the user is moving faster (For purposes of illustration and without limitation, if they are in a car, on a motorcycle, on a high speed train, etc.) then targeted content associated with businesses in a wider area are sent to the user or retrieved from the memory of the mobile device. This allows the mobile device to display the most relevant content to the user of the mobile device while allowing the content to be displayed a sufficient amount of time so that the user is able to see and react to the content before the content is replaced with more relevant information based upon updated location information available to the mobile device.” Busch ’815 at [0363].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding |

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| | geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract.<br>  <br>*FIG. 1*<br>Svendsen ’073 at Fig. 1. |

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| POINT | INTERSECTING SHAPES | KEYWORDS |
|---|---|---|
| 18 | A | RED=80, BLUE=30 |
| 20 | A,B | RED=80, BLUE=30, WHITE=50 |
| 22 | A,B,C,D | RED=20, BLUE=90, WHITE=50, GREEN=10 |
| 24 | A,C,D | RED=20, BLUE=90, GREEN=10 |

***FIG. 2B***

Svendsen ’073 at Fig. 2B.

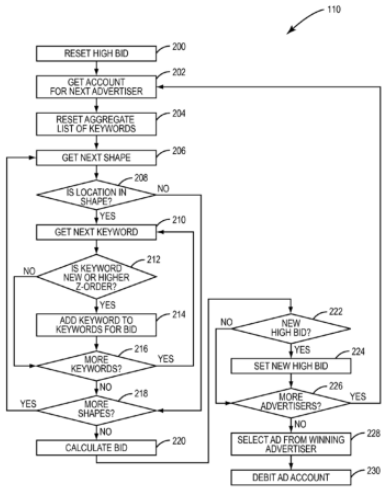
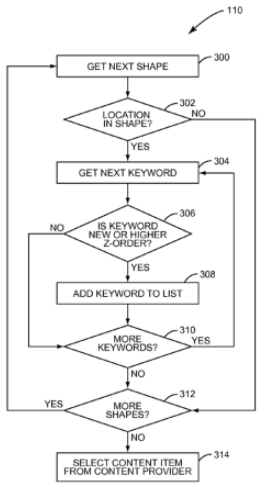
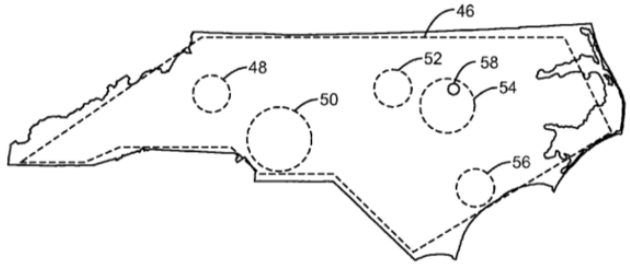



***FIG. 3***

Svendsen ’073 at Fig. 3.

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| |  <br>FIG. 5<br>Svendsen ’073 at Fig. 5.<br>  <br>FIG. 6A<br>Svendsen ’073 at Fig. 6A. |

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| SHAPE | Z-ORDER | KEYWORDS |
|---|---|---|
| 46 | 0 | Rock = 80, Country = 30, Pop = 30 |
| 48 | 1 | Alternative = 50 |
| 50 | 2 | Polka = 200 |
| 52 | 3 | Rap = 80 |
| 54 | 4 | Jazz = 10 |
| 56 | 5 | Beach = 95 |

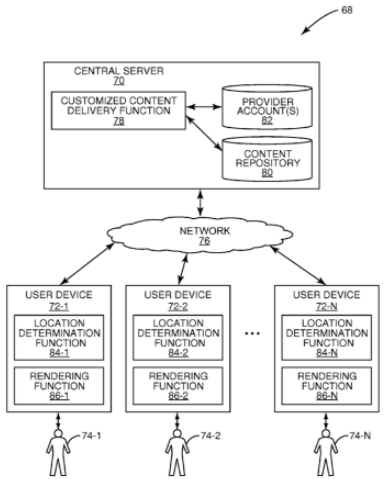
***FIG. 6B***

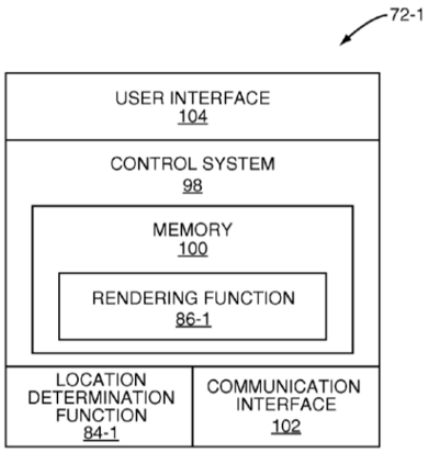
Svendsen ’073 at Fig. 6B.

| POINT | INTERSECTING SHAPES | KEYWORDS |
|---|---|---|
| 58 | 46, 54 | Rock = 80, Country = 30, Pop = 30, Jazz = 10 |

***FIG. 6C***

Svendsen ’073 at Fig. 6C.

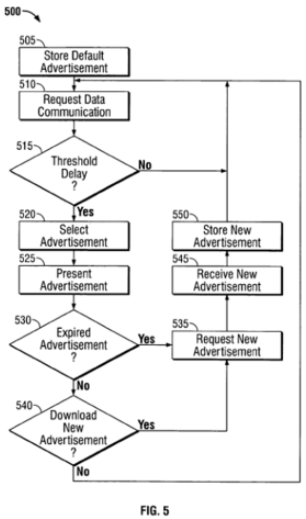
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| |  <br>*FIG. 11*<br>Svendsen ’073 at Fig. 11. |

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| |  <br>***FIG. 14***<br>Svendsen ’073 at Fig. 14.<br>“The present invention relates to customized content delivery based on location.” Svendsen ’073 at 1:7–8.<br>“The present invention relates to providing customized content to users based on their location.” Svendsen ’073 at 1:22–23.<br>“Thereafter, when a request is received from a requestor, one or more of the content items of one or more of the content providers are selected for delivery to the requester based on the geographic shapes defined by the one or more content providers, the tags and corresponding weights for the geographic shapes defined by the one or more content providers, and the location of the requestor.” Svendsen ’073 at 1:42–48.<br>“Then, based on the location of the requestor and the geographic shapes defined by the one or more content providers, a content provider is selected if necessary, and one or more content items of the content provider are selected for delivery to the requestor (step 110). Once selected, the one or more content items are delivered or caused to be delivered to the requester (step 112). As an example, returning to FIG. 2A, if the requestor is located at point 18, then, as shown in FIG. 2B, the requestor is located within the geographic shape 10 (Shape A) of this particular content provider. As such, the keywords and corresponding weights for the geographic shape 10 (Shape A) may then be utilized to select one or more content items of the |

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| | corresponding content provider to deliver to the requestor. Note that if there are multiple content providers and the requester is located within geographic shapes of two or more content providers, one of the content providers is preferably selected as the content provider for which content is to be delivered to the requestor. An exemplary scheme for selecting the content provider from multiple content providers is discussed below with respect to FIG. 3.” Svendsen ’073 at 4:48–67.<br><br>“If instead requestor is located at point 22, then the requestor is located within the geographic shapes 10 through 16 (Shapes A, B, C, and D). As such, as illustrated in FIG. 2B, the keywords and weights for the geographic shapes 10 through 16 are aggregated according to the z-order values of the geographic shapes 10 through 16 to provide an aggregate list of keywords and corresponding weights to be used to select one or more content items to be delivered to the requester. Note that, in this case, the keyword Red is assigned to both the geographic shape 10 (Shape A) and the geographic shape 16 (Shape D). However, the weight assigned to the keyword Red is 80 in the geographic shape 10 (Shape A) and 20 in the geographic shape 16 (Shape D). Since the z-order value, or importance level, assigned to the geographic shape 16 (Shape D) is higher than that assigned to the geographic shape 10 (Shape A), the weight assigned to the keyword Red in the geographic shape 16 (Shape D) overrides the weight assigned to the keyword Red in the geographic shape 10 (Shape A). Similarly, the keyword Blue is assigned to both the geographic shape 10 (Shape A) and the geographic shape 14 (Shape C). However, the weight assigned to the keyword Blue is 30 in the geographic shape 10 (Shape A) and 90 in the geographic shape 14 (Shape C). Since the z-order value, or importance level, assigned to the geographic shape 14 (Shape C) is higher than that assigned to the geographic shape 10 (Shape A), the weight assigned to the keyword Blue in the geographic shape 14 (Shape C) overrides the weight assigned to the keyword Blue in the geographic shape 10 (Shape A). Thus, the aggregate list of keywords and corresponding weights for the requestor located at point 22 is Red with a weight of 20, Blue with a weight of 90, White with a weight of 50, and Green with a weight of 10. This aggregate list of keywords and corresponding weights may then be utilized to select content items of the corresponding content provider to be delivered to the requester.” Svendsen ’073 at 5:14–48.<br><br>“FIG. 3 is a more detailed illustration of step 110 of FIG. 1 according to one embodiment of the present invention. In this example, the one or more content providers are advertisers. However, again, the present invention is not limited thereto. First, a high bid is reset (step 200). Then, an account is obtained for a next advertiser (step 202). For the first iteration, the next advertiser is the first advertiser. The account of the advertiser includes information identifying the geographic shapes defined by the advertiser, the keywords and corresponding weights assigned to each of the geographic shapes, and the keywords assigned to the content |

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| | items of the advertiser, which in this example are advertisements. Next, an aggregate list of keywords and corresponding weights for the advertiser is reset (step 204).” Svendsen ’073 at 6:16–29.<br><br>“At this point whether proceeding from step 306 or step 308, a determination is made as to whether there are more keywords assigned to the geographic shape (step 310). If so, steps 304 through 310 are repeated until all of the keywords assigned to the geographic shape have been processed. Once all of the keywords for the geographic shape have been processed, a determination is made as to whether there are more geographic shapes for the content provider (step 312). If so, steps 300 through 312 are repeated until all of the geographic shapes for the content provider have been processed. At that point, one or more content items of the content provider are selected based on the aggregate list of the keywords (step 314). More specifically, in one embodiment, each of the content items of the content provider may be scored as a function of the keywords in the aggregate list of keywords and corresponding weights for the keywords in the aggregate list of keywords as compared to the keywords assigned to the content items of the content provider. One or more content items having the highest score(s) may then be selected as content items to be delivered to the requestor.” Svendsen ’073 at 9:42–61.<br><br>“FIG. 6C illustrates an aggregate list of keywords and corresponding weights generated using the process of FIG. 5 in response to a request from a requestor located at a point 58 (FIG. 6A). The point 58, and thus the requestor, is located within the geographic shapes 46 and 54. Therefore, using the process of FIG. 5, the keywords assigned to the geographic shapes 46 and 54 are aggregated to provide the following aggregate list of keywords: Rock with a weight of 80, Country with a weight of 30, Pop with a weight of 30, and Jazz with a weight of 10. Based on the aggregate list of keywords, a number of songs provided by the audio provider are selected and utilized to provide a customized audio stream for the requestor. More specifically, in one embodiment, songs made available by the audio provider may be scored based on the aggregate list of keywords including the weights assigned to the keywords in the aggregate list of keywords as compared to the keywords assigned to the songs of the content provider. Then, one or more songs having the highest score(s) are selected as songs for the customized audio stream for the requestor.” Svendsen ’073 at 10:13–32.<br><br>“As such, in response to the request and a location of the user 74-1, the customized content delivery function 78 selects one or more advertisements for the user 74-1 in the manner discussed above.” Svendsen ’073 at 14:39–42.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity |

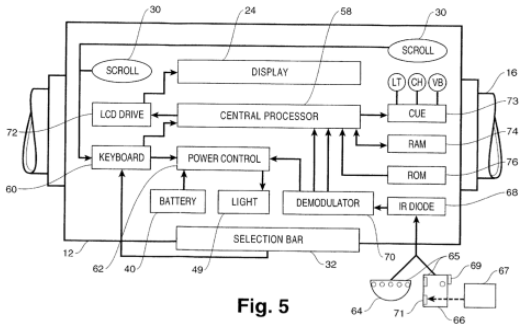
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| | contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 2[pre]. The method of claim 1, further comprising: | The following prior art expressly or inherently discloses and renders obvious “[t]he method of claim 1.” *See* claim 1 limitations above.<br><br>*See* above at row 1[pre].<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [2a] recording a request identifier associated with the request; and | The following prior art expressly or inherently discloses and renders obvious “recording a request identifier associated with the request.” For example:<br><br>“At reference numeral 404, an invitation to confirm enrollment in the alert service is transmitted to the mobile device whose identifier was entered during account initialization.” Hughes ’666 at [0048]. |

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| |  <br>FIG. 5<br>Macaluso ’238 at FIG. 5.<br>“The notification may represent a request for a new advertisement or a request for new expiration data and may be sent to a remote server. ” Macaluso ’238 at [0006].<br>“The advertising application may also manage and maintain a cache of one or more advertisements. In addition to a cache of downloadable advertisements, the advertising application may include a default advertisement that is never deleted. The advertising application may track the respective advertisements' lifetimes. For example, it may be desirable for advertisements to have a specified expiration date and time and/or a specified number of times to be displayed. The advertising application may also keep track of statistics relating to the advertisement, such as the number of times displayed and frequency of display” Macaluso ’238 at [0032].<br>“Each advertisement may have an associated expiration date and time that is assigned to and downloaded with the advertisement. If the date and time have passed, the advertisement may be considered to have expired. If the advertisement has expired, a new advertisement may be requested (step 535) by, for example, sending a request to a remote server that stores a library of advertisements.” Macaluso ’238 at [0035]. |

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| | “When a new advertisement is downloaded, an AdCounter value representing the number of times the advertisement is to be displayed may also be sent with the advertisement. The use of expiration data and a counter value are not necessarily mutually exclusive. In some implementations, it may be desirable to use both techniques for determining whether a new advertisement should be downloaded. For example, a new advertisement may be downloaded in connection with the earlier of the expiration date or the advertisement having been displayed a specified number of times.” Macaluso ’238 at [0038].<br><br>“The advertising extension 802 maintains status information relating to the advertisements stored on the mobile device. This status information includes an update flag and an indication of whether an advertisement is stored in an advertisement cache of the mobile device, which are set to respective initial values (step 810). ” Macaluso ’238 at [0045].<br><br>“The client request may use an HTTP POST method. The HTTP header of the request may contain HTTP header tags along with specially defined header tags for communicating data relevant to the described advertising techniques. The data specifying the necessary format of the requested advertisement may be set forth in request tags, which may be sent in the body of the request. The request tags may HTML format tags. Accordingly, each tag may be separated from its value by an equal sign (‘=’) and each tag/value pair may be separated by an ampersand (‘&’). The response from the server may use the HTTP status technique along with specially defined header tags. The response tags may be in the HTML header, each may appear on its own line and may be separated from its value by a colon (‘:’).” Macaluso ’238 at [0051].<br><br>“The response tags of the above illustrative response include an “AW-Title” tag, which allows the server to inform the client of the advertisement that is sent. An “AW-Frames” tag allows the server to indicate how many frames are in the animated bitmap. Using the information about the number of frames, the client may compute the width of each frame by dividing the width of the received bitmap by the number of frames. An “AW-Expiration” tag indicates that the advertisement is valid only until the time specified in the “AW-Expiration” tag.” Macaluso ’238 at [0057].<br><br>“The server may also store a database table for each mobile device. The mobile device database table may include a phone number or other unique identifier for the mobile device, a number of views for the last advertisement assigned to the mobile device as reported by the mobile device (e.g., a “Views” field), a time period in which the views occurred, the title of the last advertisement assigned to the mobile device (e.g., a “Last_assignment_title” field), the number of views assigned for the last advertisement assigned to the mobile device (e.g., a “Last_assignment_views” field), and the time period in which the mobile device is requested to perform the assigned number of views for the last advertisement assigned to the mobile device (e.g., a |

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| | “Last_assignment_time” field). In some implementations, the mobile device database table may store additional historical information regarding advertisements that were previously assigned to the mobile device to allow the server to more efficiently determine which advertisements should be assigned to the mobile device” Macaluso ’238 at [0061].<br><br>“The cellular phones 12-1 and 12-2 include an IC chip 55 that performs short-range communication by using a non-contact method, and the IC chip is given ICID that is unique identification information. In the present embodiment, for example, the cellular phones 12-1 and 12-2 perform short-range communication by using the IC chip 55. The IC chip 55 is a short-wave-resistant module. The IC chip 55 is removably or fixedly built in the cellular phones 12-1 and 12-2.” Kinoshita ’866 at [0032].<br><br>“The processing circuit 79 of the Web server 24 designates IDs of a plurality of advertisement items which are selected in step ST5, and transfers these IDs to the service device 14 via the interface 72. The processing circuit 69 of the service device 14 transfers a plurality of received IDs to the memory 68. In addition to the ID data, the processing circuit 79 reads out the advertisement data associated with the place data and transfers it to the service device 14. The processing circuit 69 of the service device 14 transfers received advertisement data to the memory 68.” Kinoshita ’866 at [0060].<br><br>“The processing circuit 69 of the service device 14 reads out the plurality of IDs and transfers them to the cellular phone 12-1 via the short-range communication unit 65. The processing circuit 59 of the cellular phone 12-1 transfers the plurality of received IDs to the memory 58.” Kinoshita ’866 at [0062].<br><br>“By using the plurality of IDs received in step ST7, the processing circuit 59 of the cellular phone 12-1 downloads all the corresponding advertisement data from the Web server 24. It is possible to download them from servers other than the Web server 24.” Kinoshita ’866 at [0066].<br><br>“Further according to the first process, while the cellular phone 12-1 has not so much communication capacity, it is merely necessary to communicate only small-capacity ID data between the cellular phone 12-1 and the service device 14. Therefore communication time becomes shorter. According to the first process, the cellular phone 12-1 receives the advertisement data from the Web server 24 via large-capacity transmission according to the received IDs from the service device 14, and the cellular phone 12-1 selects the advertisement data suitable for the user from the received advertisement data. Therefore, the Web server 24 does not accumulate information regarding treated advertisement data.” Kinoshita ’866 at [0069]. |

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| | “The processing circuit 69 of the service device 14 of FIG. 3 reads out APL-IDs and the place data from the memory 68 and transfers them to the Web server 24 via the interface 62. The processing 79 of the Web server 24 of FIG. 4 receives APL-IDs and transfers them to the memory 78.” Kinoshita ’866 at [0098].<br><br>“The processing circuit 79 of the Web server 24 reads out APL-IDs and the place data from the memory 78, and based upon both of them the processing circuit 79 selects suitable advertisement from the advertisement stored in the memory 78. That is, the processing circuit 79, based upon both of a type of application program being implemented by the cellular phone 12-1 and a place of the service device 14, searches the corresponding advertisement videos and digital content data in the memory 78. The advertisement video is associated with the digital content data in a one-to-one correspondence, and both are assigned a type of application program and place data.” Kinoshita ’866 at [0100].<br><br>“In the present embedment, the cellular phone 12-1 or 12-2 generates and stores content-transfer history data TD in which a history of digital content data transferred between the above two cellular phones and other cellular phones is recorded. The content-transfer history data TD is finally stored in the Web server 24.” Kinoshita ’866 at [0145].<br><br>“Specifically, when the cellular phone 12-1 or 12-2 transfers digital content data to other cellular phone, and vice versa, its transfer history is added to the content-transfer history data TD stored in the memory 58.” Kinoshita ’866 at [0146].<br><br>“When the cellular phone 12-1 or 12-2 accesses the Web server 24, the cellular phone 12-1 or 12-2 reads out the content-transfer history data TD and transfers it to the Web server 24. This transfer is performed, for example, at the time when an application program APL is downloaded, or when advertisement member registration is performed. When the cellular phone 12-1 or 12-2 transfers the content-transfer history data TD to the Web server 24, this transfer may be implemented after the original content-transfer history data has been changed to the upper-level category data. When the change to the upper-level category data is performed, for example, each ID of cellular phone is changed to classified ID that is classified to a given ID, or each due date is changed to a given period of the due date that covers a certain period of due data. Here, the classified ID is, for example, an ID assigned to a type of cellular phone.” Kinoshita ’866 at [0147].<br><br>“Information received by receiver component 502 can include identification of the object (e.g., name, address, . . . ) and/or geo-coded information 514 (e.g., geographic coordinates, latitude, longitude, street location, and the like).” Smith ’558 at [0104]. |

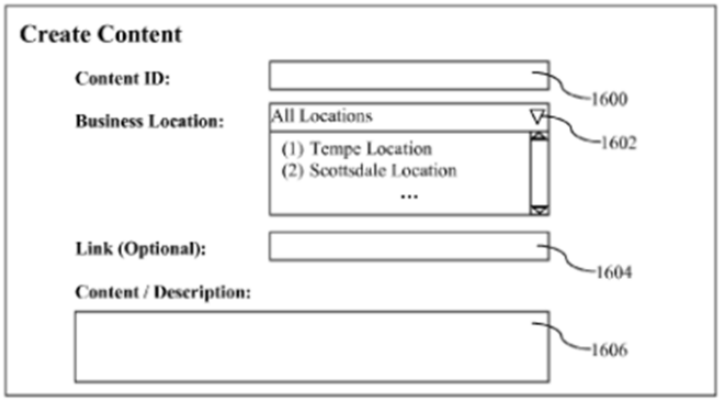
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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>“The system of this invention utilizes similar components with the locationally specific transmitting unit transmitting a digitized message signal representing the screen graphic together with other product control signals related to the promoted item such as the universal product identification number, bar code, date or iteration of the promotional graphic, and the identity of the transmitting unit. The transmitted screen graphic signal is compared with a memory file of stored screen graphics and if a match is found, the stored memory graphic or the signal transmitted graphic is displayed. Often, using the standard checksum procedure, the stored memory graphic can be validated and displayed before completion of transmission of the message signal.” Begum ’880 at 1:60–2:5.<br>“If there is no match, the signal transmitted graphic is stored into the memory of the display unit and the signal transmitted graphic is simultaneously displayed on the screen of the display unit. Similarly, if there is a match but the transmitted graphic is an updated version, then the stored memory graphic is dated and replaced with the updated signal transmitted graphic.” Begum ’880 at 2:6–12.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“The data signal is a digital signal that includes both the product control signals and the screen graphic signal. The product control signals include data about the promotion that is not in the screen graphic and that does |

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| | not appear on the display screen 24 of the display unit 12. This data may include the universal product identification number, the date or iteration number of the promotional graphic, and, the identification number of the transceiver unit, which is useful in tracking the path of a shopper through the market area. The screen graphic signal contains the digitized data that is received by the display unit 12 and formatted for display on the display screen. For example, a compressed screen graphic signal must be decompressed by the central processor before it is relayed to the LCD controller and driver 72. ” Begum ’880 at 9:16–29.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>*See also* Begum ’880 at 8:36–47 and 10:16–31.<br><br>“The content client may periodically connect to a content server or ad server and request content: The ad server may selectively serve content items to the content client, based on parameters related to the mobile phone, e.g., manufacturer identifier, model identifier, available memory, presentation capabilities, or the like, and/or based on parameters related to a user of the mobile phone, e.g., age, age group, gender, marital status, profession, occupation, geographical location, proximity to geographical places, or the like.” Levkovitz ’852 at [0006].<br><br>“Data loader 111 may obtain one or more parameters to allow ad server 110 to process the content request from communicator 150. Such parameters may include, for example, parameters representing properties of various content items, e.g., a content item identifier, a group identifier (e.g., identifying a group to which the content item belongs), an update time, priority data, a time period during which the content item may be served, a presentation template associated with the content item, an alternate text associated with the content item, a broadcast mode associated with the content item (e.g., “live broadcast” mode, “test” mode, “stop” |

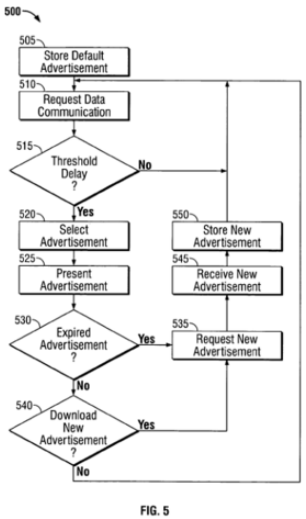
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| | mode, or the like), a cost or a price associated with a serving of the content item, capping or quota data, attribute data, data representing a target user or a group of target users to which the content item is intended to be presented (e.g., defined by age, by age range, by location, by gender, by occupation, by profession, or the like), or other parameters. In one embodiment, for example, data loader 111 may have a relatively fast access to data, and/or a read-only authorization.” Levkovitz ’852 at [0129].<br><br>“A content request created by content client 174 may include data representing one or more properties of device 170 and/or one or more properties of the user of device 170, for example, a version identifier of content client 174, an identifier of application 176, an identifier of device 170 (e.g., manufacturer, model, or the like), local time, installation time, last connection time, Operating System (OS) type and version, total memory size of device 170, free or available memory of device 170, free or available memory in local repository 171, screen dimensions (e.g., height and width, by pixels), color depth (e.g., as a number of bits available to represent color information), user information, user name, cache content (e.g., list of previous-stored content items within local repository 171), previous presentations data, or the like.” Levkovitz ’852 at [0165].<br><br>“In some embodiments, optionally, a “cookie” or a cookie-like mechanism may be used by system 100, for example, to identify device 170, to store in device 170 data which may be unique to device 170, to store in device 170 data related to prior communications between device 170 and other components of system 100, to store in device 170 personal information about a user of device 170, or the like. The cookie may be stored, for example, in memory unit 187, and may be periodically read or updated.” Levkovitz ’852 at [0177].<br><br>*See also* Levkovitz ’852 at Fig. 2, [0007], [0008], [0104], [0161], and [0162].<br><br>*See also* Sanctis ’837 at [0063] and [0067].<br><br>“Media monitoring information may be generated based on, for example, audio codes, signatures (e.g., a representation of any characteristic of monitored audio such as, for example, a characteristic of a program signal), radio frequency (RF) codes, and/or any other codes, information, or identifiers that may be extracted from and/or otherwise associated with a media presentation to which a monitored person is exposed. ” Mello ’479 at [0027].<br><br>“The RF location interface 148 may also be configured to broadcast location-related information such as, for example, time-stamped PPM identification codes. The time-stamped PPM identification codes may be received by, for example, three or more of the relay devices such as the relay device 64, which may process the codes cooperatively using triangulation techniques to determine the location of the PPM 30. The relay |

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| | devices 64 may communicate the received time-stamped PPM identification codes to the central facility 60 along with information relating to the times at which the codes were received by each of the relay devices 64. The central facility 60 may then determine the location of the PPM 30 based on this information.” Mello ’479 at [0048].<br><br>“The PPM 30 may collect/generate and store media monitoring information (e.g., audience measurement codes (e.g., codes inserted to identify media, sometimes referred to as “ancillary codes”), signatures, etc.) associated with any media (e.g., video, audio, movies, music, still pictures, advertising, etc.) to which the monitored person 32 is exposed. For example, the PPM 30 may be configured to obtain codes (e.g., audio codes), generate or collect signatures, etc. that may be used to identify video programs (e.g., DVD movies, television programming, etc.), audio programs (e.g., CD audio, radio programming, etc.), and/or any other media. Using one or more media detection devices described above in connection with FIG. 2, the PPM 30 may collect media monitoring information associated with presented or delivered media to which the monitored person 32 may be exposed.<br><br>Additionally, the PPM 30 may be configured to receive codes (e.g., audio codes and/or RF codes) associated with other forms of media such as, for example, billboards or any other form of publicly viewable advertising or media. For example, each billboard (e.g., the billboard 20) may include an audio broadcasting device and/or an RF broadcasting device such as, for example, the transceiver 22 of FIG. 1, configured to emit a billboard code that uniquely identifies that billboard. If the PPM 30 is proximate to a billboard, the PPM 30 may obtain the billboard code as media monitoring information, thereby indicating that the monitored person 32 was exposed to the billboard. In addition, the PPM 30 may be configured to obtain direction information via, for example, the compass 150, and log the direction in which the monitored person 32 is facing or traveling so that subsequent data analyses may determine if the monitored person 32 was likely facing the billboard.” Mello ’479 at [0060]–[0061].<br><br>“The reference media codes/signatures database 211 is configured to store advertisement identifiers in association with respective media representation information such as codes or signatures that are known to be associated with, correspond to, or that otherwise identify those advertisements. For example, the reference media codes/signatures database 211 can store reference audio codes or signatures that identify respective audio advertisements, reference video codes, or signatures that identify respective video advertisements, and/or RF codes or signatures that identify respective advertisements (e.g., the billboard 20 of FIG. 1) having RF transmitters (e.g., the RF transmitter 22 of FIG. 1) that emit codes or unique RF signals. The data analyzer 208 can compare codes or signatures collected by the PPM's 30, 34, and 36 (FIG. 1) to the known codes or signatures in the reference media codes/signatures database 211 to determine audio, video, or other stationary |

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| | advertisements to which the monitored persons 32, 38, and 40 were exposed. In addition, the data analyzer 208 can use the advertisement identifier information in the reference media codes/signatures database 211 in connection with the geo-coded advertisement database 210 to determine the locations at which the advertisements were presented.<br><br>In the illustrated example, the data analyzer 208 can retrieve information from the database 72 to perform analyses and can store analysis results in the database 72 for subsequent retrieval by a metering entity or a business interested in receiving the analysis results. In the illustrated example, the database 72 includes a storefront and product geo-coded knowledgebase 212 and a consumer behavior knowledgebase 214. The storefront and product geo-coded knowledgebase 212 stores retail establishment identifiers and product/service identifiers in association with respective location identifiers indicative of the locations of those retail establishments and products/services. In some example implementations, the data analyzer 208 can retrieve the associated identifiers from the storefront and product geo-coded knowledgebase 212 to determine whether a user visited a particular retail establishment and/or purchased a product or service at a particular retail establishment. The storefront and product geo-coded knowledgebase 212 can be setup and configured by a metering entity (e.g., a metering business implementing the example methods and apparatus described herein) upon initial system setup to associate location identifiers with respective retail establishments and/or products/services. The knowledgebase 212 is maintained thereafter to keep location identifier associations up to date. In some example implementations, the storefront and product geo-coded knowledgebase 212 is updated based on data collected by the PPM 30. For example, purchase data stored by the PPM 30 in association with location information may include a retail establishment name or identifier that the storefront and product geo-coded knowledgebase 212 can use to update location identifier associations and/or add new location identifier associations.” Mello ’479 at [0076]–[0077]. |

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| |  <br>**FIG. 16A**<br>Busch ’815 at Fig. 16A.<br>“ For purposes of illustration and without limitation, a list of RFID numbers associated with merchant ID numbers is maintained and coupon identification number or value for coupons that have been sent to the mobile phone with the particular RFID number. When the merchant ID scans the RFID chip and obtains the RFID number then the merchant submits a query with the RFID number and their merchant ID number and the coupon identification number or value is returned. This invention may also be used with any other wireless identification number such as the Media Access Control (MAC) address of a Bluetooth or Wi-Fi radio, or any unique identification number.” Busch ’815 at [0374].<br>“Content producers may also look at various statistics associated with their various advertisement campaigns. With reference to FIG. 16B, the user interface includes an identification of the content ID 1620 and a table of data 1622.” Busch ’815 at [0424].<br>“The user is associated with an identifier on a website that hosts the video content, the identifier is either associated with the user's mobile device or the identifier is coupled to a second identifier in another system that is associated with the user's mobile device. When the video advertisement is played, an indication that the advertisement was displayed to the user is recorded.” Busch ’815 at [0426].<br>“The advertisement 1700 is associated with a particular advertiser through the identification number on the near field identification tag 1702. The near field identification tag 1702 may contain an identification number |

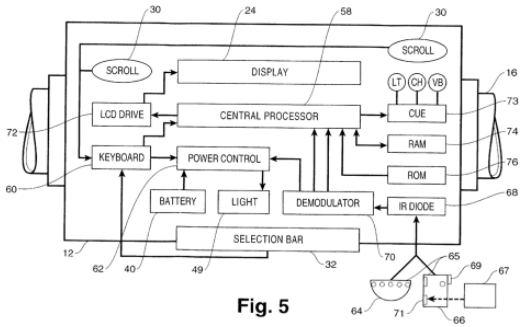
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| | unique to the advertiser or one that is unique for each advertisement. Instead of near field identification, a barcode or other coded image may be used. A user may use the camera on their mobile device to take a picture of the coded image. The picture of the coded image is processed to obtain the encoded identifying information which is then reported to system 1704.” Busch ’815 at [0428].<br><br>*See also* Svendsen ’073 at 11:17–32.<br><br>“The Xtify API provides a simple interface for a web content provider to access a user's location. This API uses a REST interface and XML as the message format. The method for querying a user's location requires the content provider to include two parameters, one identifying the application and the other identifying the particular user associated with the location query.” Xtify - API Overview at 1.<br><br>“Step 3: Provide a link for users to download the Xtify client.<br><br>You will place a special download link on your website that includes your Application ID and a UNIQUE identifier you provide for each user download. Be sure not to use the same user key for every download as this will disable all previous users with that key.” Xtify - QuickStart at 1.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [2b] providing the request identifier to the registered application program. | The following prior art expressly or inherently discloses and renders obvious “providing the request identifier to the registered application program.” For example:<br><br>“At reference numeral 404, an invitation to confirm enrollment in the alert service is transmitted to the mobile device whose identifier was entered during account initialization.” Hughes ’666 at [0048]. |

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| |  <br>FIG. 5<br>Macaluso ’238 at FIG. 5.<br>“The notification may represent a request for a new advertisement or a request for new expiration data and may be sent to a remote server. ” Macaluso ’238 at [0006].<br>“The advertising application may also manage and maintain a cache of one or more advertisements. In addition to a cache of downloadable advertisements, the advertising application may include a default advertisement that is never deleted. The advertising application may track the respective advertisements' lifetimes. For example, it may be desirable for advertisements to have a specified expiration date and time and/or a specified number of times to be displayed. The advertising application may also keep track of statistics relating to the advertisement, such as the number of times displayed and frequency of display” Macaluso ’238 at [0032].<br>“Each advertisement may have an associated expiration date and time that is assigned to and downloaded with the advertisement. If the date and time have passed, the advertisement may be considered to have expired. If the advertisement has expired, a new advertisement may be requested (step 535) by, for example, sending a request to a remote server that stores a library of advertisements.” Macaluso ’238 at [0035]. |

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| | “When a new advertisement is downloaded, an AdCounter value representing the number of times the advertisement is to be displayed may also be sent with the advertisement. The use of expiration data and a counter value are not necessarily mutually exclusive. In some implementations, it may be desirable to use both techniques for determining whether a new advertisement should be downloaded. For example, a new advertisement may be downloaded in connection with the earlier of the expiration date or the advertisement having been displayed a specified number of times.” Macaluso ’238 at [0038].<br><br>“The advertising extension 802 maintains status information relating to the advertisements stored on the mobile device. This status information includes an update flag and an indication of whether an advertisement is stored in an advertisement cache of the mobile device, which are set to respective initial values (step 810). ” Macaluso ’238 at [0045].<br><br>“The client request may use an HTTP POST method. The HTTP header of the request may contain HTTP header tags along with specially defined header tags for communicating data relevant to the described advertising techniques. The data specifying the necessary format of the requested advertisement may be set forth in request tags, which may be sent in the body of the request. The request tags may HTML format tags. Accordingly, each tag may be separated from its value by an equal sign (‘=’) and each tag/value pair may be separated by an ampersand (‘&’). The response from the server may use the HTTP status technique along with specially defined header tags. The response tags may be in the HTML header, each may appear on its own line and may be separated from its value by a colon (‘:’).” Macaluso ’238 at [0051].<br><br>“The response tags of the above illustrative response include an “AW-Title” tag, which allows the server to inform the client of the advertisement that is sent. An “AW-Frames” tag allows the server to indicate how many frames are in the animated bitmap. Using the information about the number of frames, the client may compute the width of each frame by dividing the width of the received bitmap by the number of frames. An “AW-Expiration” tag indicates that the advertisement is valid only until the time specified in the “AW-Expiration” tag.” Macaluso ’238 at [0057].<br><br>“The server may also store a database table for each mobile device. The mobile device database table may include a phone number or other unique identifier for the mobile device, a number of views for the last advertisement assigned to the mobile device as reported by the mobile device (e.g., a “Views” field), a time period in which the views occurred, the title of the last advertisement assigned to the mobile device (e.g., a “Last_assignment_title” field), the number of views assigned for the last advertisement assigned to the mobile device (e.g., a “Last_assignment_views” field), and the time period in which the mobile device is requested to perform the assigned number of views for the last advertisement assigned to the mobile device (e.g., a |

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| | “Last_assignment_time” field). In some implementations, the mobile device database table may store additional historical information regarding advertisements that were previously assigned to the mobile device to allow the server to more efficiently determine which advertisements should be assigned to the mobile device” Macaluso ’238 at [0061].<br><br>“The cellular phones 12-1 and 12-2 include an IC chip 55 that performs short-range communication by using a non-contact method, and the IC chip is given ICID that is unique identification information. In the present embodiment, for example, the cellular phones 12-1 and 12-2 perform short-range communication by using the IC chip 55. The IC chip 55 is a short-wave-resistant module. The IC chip 55 is removably or fixedly built in the cellular phones 12-1 and 12-2.” Kinoshita ’866 at [0032].<br><br>“The processing circuit 79 of the Web server 24 designates IDs of a plurality of advertisement items which are selected in step ST5, and transfers these IDs to the service device 14 via the interface 72. The processing circuit 69 of the service device 14 transfers a plurality of received IDs to the memory 68. In addition to the ID data, the processing circuit 79 reads out the advertisement data associated with the place data and transfers it to the service device 14. The processing circuit 69 of the service device 14 transfers received advertisement data to the memory 68.” Kinoshita ’866 at [0060].<br><br>“The processing circuit 69 of the service device 14 reads out the plurality of IDs and transfers them to the cellular phone 12-1 via the short-range communication unit 65. The processing circuit 59 of the cellular phone 12-1 transfers the plurality of received IDs to the memory 58.” Kinoshita ’866 at [0062].<br><br>“By using the plurality of IDs received in step ST7, the processing circuit 59 of the cellular phone 12-1 downloads all the corresponding advertisement data from the Web server 24. It is possible to download them from servers other than the Web server 24.” Kinoshita ’866 at [0066].<br><br>“Further according to the first process, while the cellular phone 12-1 has not so much communication capacity, it is merely necessary to communicate only small-capacity ID data between the cellular phone 12-1 and the service device 14. Therefore communication time becomes shorter. According to the first process, the cellular phone 12-1 receives the advertisement data from the Web server 24 via large-capacity transmission according to the received IDs from the service device 14, and the cellular phone 12-1 selects the advertisement data suitable for the user from the received advertisement data. Therefore, the Web server 24 does not accumulate information regarding treated advertisement data.” Kinoshita ’866 at [0069].<br><br>“The processing circuit 79 of the Web server 24 reads out APL-IDs and the place data from the memory 78, and based upon both of them the processing circuit 79 selects suitable advertisement from the advertisement |

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| | stored in the memory 78. That is, the processing circuit 79, based upon both of a type of application program being implemented by the cellular phone 12-1 and a place of the service device 14, searches the corresponding advertisement videos and digital content data in the memory 78. The advertisement video is associated with the digital content data in a one-to-one correspondence, and both are assigned a type of application program and place data.” Kinoshita ’866 at [0100].<br><br>“The processing circuit 69 of the service device 14 reads out, from the memory 68, data necessary for answering the service requests received in the step ST24. Then the service device 14 transfers the data necessary for the service requests and both the advertisement videos and digital content data selected in the step ST29 to the cellular phone 12-1 via the R/W device 16. At this time the advertisement videos are associated with the digital content data in one-to-one correspondence. The digital content data includes, for example, live videos, animation videos, ring tones, and standby screens. The digital video data is available on condition that users of the cellular phones 12-1 and 12-2 are registered as a member in the Web server 24. Transferring data to the cellular phone 12-1, the service device 14 displays an advertisement video on the display 64.” Kinoshita ’866 at [0108].<br><br>“When the cellular phone 12-1 or 12-2 accesses the Web server 24, the cellular phone 12-1 or 12-2 reads out the content-transfer history data TD and transfers it to the Web server 24. This transfer is performed, for example, at the time when an application program APL is downloaded, or when advertisement member registration is performed. When the cellular phone 12-1 or 12-2 transfers the content-transfer history data TD to the Web server 24, this transfer may be implemented after the original content-transfer history data has been changed to the upper-level category data. When the change to the upper-level category data is performed, for example, each ID of cellular phone is changed to classified ID that is classified to a given ID, or each due date is changed to a given period of the due date that covers a certain period of due data. Here, the classified ID is, for example, an ID assigned to a type of cellular phone.” Kinoshita ’866 at [0147]. |

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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>“The system of this invention utilizes similar components with the locationally specific transmitting unit transmitting a digitized message signal representing the screen graphic together with other product control signals related to the promoted item such as the universal product identification number, bar code, date or iteration of the promotional graphic, and the identity of the transmitting unit. The transmitted screen graphic signal is compared with a memory file of stored screen graphics and if a match is found, the stored memory graphic or the signal transmitted graphic is displayed. Often, using the standard checksum procedure, the stored memory graphic can be validated and displayed before completion of transmission of the message signal.” Begum ’880 at 1:60–2:5.<br>“If there is no match, the signal transmitted graphic is stored into the memory of the display unit and the signal transmitted graphic is simultaneously displayed on the screen of the display unit. Similarly, if there is a match but the transmitted graphic is an updated version, then the stored memory graphic is dated and replaced with the updated signal transmitted graphic.” Begum ’880 at 2:6–12.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“The data signal is a digital signal that includes both the product control signals and the screen graphic signal. The product control signals include data about the promotion that is not in the screen graphic and that does |

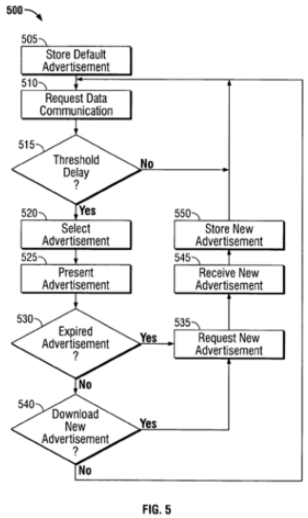
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| | not appear on the display screen 24 of the display unit 12. This data may include the universal product identification number, the date or iteration number of the promotional graphic, and, the identification number of the transceiver unit, which is useful in tracking the path of a shopper through the market area. The screen graphic signal contains the digitized data that is received by the display unit 12 and formatted for display on the display screen. For example, a compressed screen graphic signal must be decompressed by the central processor before it is relayed to the LCD controller and driver 72. ” Begum ’880 at 9:16–29.<br><br>“The product control data is a short alphanumeric string which in seven bit ASCHII code can be transmitted in a small fraction of a second. Using standard compression algorithms for the bit-mapped screen graphic, the product control data and the promotional screen graphic can be transmitted well within the two second permissible time frame.” Begum ’880 at 9:38–44.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>*See also* Begum ’880 at 8:36–47 and 10:16–31.<br><br>“After viewing the coupon, the shopper may elect to select the displayed coupon by pressing one of the select buttons 24 on the control panel 15 of the portable communication unit 14, while the coupon is being displayed, or within an additional short period of time after display. The relevant product control data relating to the selected coupon and the related product, such as the coupon identification number, product identification number, bar code number, and savings amount, are then stored in a coupon exception file 36 in the memory 34 of the communication unit 14. The product identification number will customarily correspond to the universal product code (UPC). |

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| | The portable communication unit 14 has an internal wireless communicator 38, in the form of an infrared or radio frequency transmitter 39, schematically represented in FIG. 1. When the communication unit 14 is prompted at a checkout counter 41, for example, manually by the checkout person 43 manipulating a reset switch 42 on the communication unit 14, the coupon exception file 36 is transmitted by the transmitter 39 to a receiver 44 in an electronic coupon interface unit 45 at the checkout counter, and the file in the communication unit 14 is cleared for reuse” Begum ’606 at 4:50–5:5.<br><br>“Data loader 111 may obtain one or more parameters to allow ad server 110 to process the content request from communicator 150. Such parameters may include, for example, parameters representing properties of various content items, e.g., a content item identifier, a group identifier (e.g., identifying a group to which the content item belongs), an update time, priority data, a time period during which the content item may be served, a presentation template associated with the content item, an alternate text associated with the content item, a broadcast mode associated with the content item (e.g., “live broadcast” mode, “test” mode, “stop” mode, or the like), a cost or a price associated with a serving of the content item, capping or quota data, attribute data, data representing a target user or a group of target users to which the content item is intended to be presented (e.g., defined by age, by age range, by location, by gender, by occupation, by profession, or the like), or other parameters. In one embodiment, for example, data loader 111 may have a relatively fast access to data, and/or a read-only authorization.” Levkovitz ’852 at [0129].<br><br>“A content request created by content client 174 may include data representing one or more properties of device 170 and/or one or more properties of the user of device 170, for example, a version identifier of content client 174, an identifier of application 176, an identifier of device 170 (e.g., manufacturer, model, or the like), local time, installation time, last connection time, Operating System (OS) type and version, total memory size of device 170, free or available memory of device 170, free or available memory in local repository 171, screen dimensions (e.g., height and width, by pixels), color depth (e.g., as a number of bits available to represent color information), user information, user name, cache content (e.g., list of previous-stored content items within local repository 171), previous presentations data, or the like.” Levkovitz ’852 at [0165].<br><br>“In some embodiments, optionally, a “cookie” or a cookie-like mechanism may be used by system 100, for example, to identify device 170, to store in device 170 data which may be unique to device 170, to store in device 170 data related to prior communications between device 170 and other components of system 100, to store in device 170 personal information about a user of device 170, or the like. The cookie may be stored, for example, in memory unit 187, and may be periodically read or updated.” Levkovitz ’852 at [0177]. |

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| | *See also* Levkovitz ’852 at Fig. 2, [0007], [0008], [0104], [0161], and [0162].<br><br>*See also* Sanctis ’837 at [0063] and [0067].<br><br>“Media monitoring information may be generated based on, for example, audio codes, signatures (e.g., a representation of any characteristic of monitored audio such as, for example, a characteristic of a program signal), radio frequency (RF) codes, and/or any other codes, information, or identifiers that may be extracted from and/or otherwise associated with a media presentation to which a monitored person is exposed. ” Mello ’479 at [0027].<br><br>“The RF location interface 148 may also be configured to broadcast location-related information such as, for example, time-stamped PPM identification codes. The time-stamped PPM identification codes may be received by, for example, three or more of the relay devices such as the relay device 64, which may process the codes cooperatively using triangulation techniques to determine the location of the PPM 30. The relay devices 64 may communicate the received time-stamped PPM identification codes to the central facility 60 along with information relating to the times at which the codes were received by each of the relay devices 64. The central facility 60 may then determine the location of the PPM 30 based on this information.” Mello ’479 at [0048].<br><br>“The PPM 30 may collect/generate and store media monitoring information (e.g., audience measurement codes (e.g., codes inserted to identify media, sometimes referred to as “ancillary codes”), signatures, etc.) associated with any media (e.g., video, audio, movies, music, still pictures, advertising, etc.) to which the monitored person 32 is exposed. For example, the PPM 30 may be configured to obtain codes (e.g., audio codes), generate or collect signatures, etc. that may be used to identify video programs (e.g., DVD movies, television programming, etc.), audio programs (e.g., CD audio, radio programming, etc.), and/or any other media. Using one or more media detection devices described above in connection with FIG. 2, the PPM 30 may collect media monitoring information associated with presented or delivered media to which the monitored person 32 may be exposed.<br><br>Additionally, the PPM 30 may be configured to receive codes (e.g., audio codes and/or RF codes) associated with other forms of media such as, for example, billboards or any other form of publicly viewable advertising or media. For example, each billboard (e.g., the billboard 20) may include an audio broadcasting device and/or an RF broadcasting device such as, for example, the transceiver 22 of FIG. 1, configured to emit a billboard code that uniquely identifies that billboard. If the PPM 30 is proximate to a billboard, the PPM 30 may obtain the billboard code as media monitoring information, thereby indicating that the monitored person 32 was exposed to the billboard. In addition, the PPM 30 may be configured to obtain direction information |

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| | via, for example, the compass 150, and log the direction in which the monitored person 32 is facing or traveling so that subsequent data analyses may determine if the monitored person 32 was likely facing the billboard.” Mello ’479 at [0060]–[0061].<br><br>“The reference media codes/signatures database 211 is configured to store advertisement identifiers in association with respective media representation information such as codes or signatures that are known to be associated with, correspond to, or that otherwise identify those advertisements. For example, the reference media codes/signatures database 211 can store reference audio codes or signatures that identify respective audio advertisements, reference video codes, or signatures that identify respective video advertisements, and/or RF codes or signatures that identify respective advertisements (e.g., the billboard 20 of FIG. 1) having RF transmitters (e.g., the RF transmitter 22 of FIG. 1) that emit codes or unique RF signals. The data analyzer 208 can compare codes or signatures collected by the PPM's 30, 34, and 36 (FIG. 1) to the known codes or signatures in the reference media codes/signatures database 211 to determine audio, video, or other stationary advertisements to which the monitored persons 32, 38, and 40 were exposed. In addition, the data analyzer 208 can use the advertisement identifier information in the reference media codes/signatures database 211 in connection with the geo-coded advertisement database 210 to determine the locations at which the advertisements were presented.<br><br>In the illustrated example, the data analyzer 208 can retrieve information from the database 72 to perform analyses and can store analysis results in the database 72 for subsequent retrieval by a metering entity or a business interested in receiving the analysis results. In the illustrated example, the database 72 includes a storefront and product geo-coded knowledgebase 212 and a consumer behavior knowledgebase 214. The storefront and product geo-coded knowledgebase 212 stores retail establishment identifiers and product/service identifiers in association with respective location identifiers indicative of the locations of those retail establishments and products/services. In some example implementations, the data analyzer 208 can retrieve the associated identifiers from the storefront and product geo-coded knowledgebase 212 to determine whether a user visited a particular retail establishment and/or purchased a product or service at a particular retail establishment. The storefront and product geo-coded knowledgebase 212 can be setup and configured by a metering entity (e.g., a metering business implementing the example methods and apparatus described herein) upon initial system setup to associate location identifiers with respective retail establishments and/or products/services. The knowledgebase 212 is maintained thereafter to keep location identifier associations up to date. In some example implementations, the storefront and product geo-coded knowledgebase 212 is updated based on data collected by the PPM 30. For example, purchase data stored by the PPM 30 in association with location information may include a retail establishment name or identifier that |

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| | the storefront and product geo-coded knowledgebase 212 can use to update location identifier associations and/or add new location identifier associations.” Mello ’479 at [0076]–[0077].<br><br>“ For purposes of illustration and without limitation, a list of RFID numbers associated with merchant ID numbers is maintained and coupon identification number or value for coupons that have been sent to the mobile phone with the particular RFID number. When the merchant ID scans the RFID chip and obtains the RFID number then the merchant submits a query with the RFID number and their merchant ID number and the coupon identification number or value is returned. This invention may also be used with any other wireless identification number such as the Media Access Control (MAC) address of a Bluetooth or Wi-Fi radio, or any unique identification number.” Busch ’815 at [0374].<br><br>“The user is associated with an identifier on a website that hosts the video content, the identifier is either associated with the user's mobile device or the identifier is coupled to a second identifier in another system that is associated with the user's mobile device. When the video advertisement is played, an indication that the advertisement was displayed to the user is recorded.” Busch ’815 at [0426].<br><br>*See also* Svendsen ’073 at 11:17–32.<br><br>“The Xtify API provides a simple interface for a web content provider to access a user's location. This API uses a REST interface and XML as the message format. The method for querying a user's location requires the content provider to include two parameters, one identifying the application and the other identifying the particular user associated with the location query.” Xtify - API Overview at 1.<br><br>“Step 3: Provide a link for users to download the Xtify client.<br><br>You will place a special download link on your website that includes your Application ID and a UNIQUE identifier you provide for each user download. Be sure not to use the same user key for every download as this will disable all previous users with that key.” Xtify - QuickStart at 1.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

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| 3[pre]. The method of claim 2, further comprising: | The following prior art expressly or inherently discloses and renders obvious “[t]he method of claim 2.” *See* claim 2 limitations above.<br><br>*See* above at row 1[pre]. |
| [3a] receiving information related to user interaction with the provided content, the information including the request identifier; and | The following prior art expressly or inherently discloses and renders obvious “receiving information related to user interaction with the provided content, the information including the request identifier.” For example:<br><br>“The account interface can allow users to specify the types or categories of advertisements that the users would be interested in receiving. Users can define alerts that allow them to receive specific types of advertisements. Allowing users to select categories of offers increases the likelihood that the user will be interested in the goods or services advertised. ” Hughes ’666 at [0083].<br><br>*See also* Hughes ’666 at [0038].<br><br>  <br>FIG. 5<br><br>Macaluso ’238 at FIG. 5.<br><br>“When a new advertisement is downloaded, an AdCounter value representing the number of times the advertisement is to be displayed may also be sent with the advertisement. The use of expiration data and a |

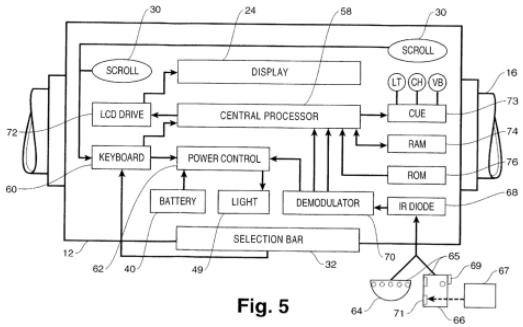
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| | counter value are not necessarily mutually exclusive. In some implementations, it may be desirable to use both techniques for determining whether a new advertisement should be downloaded. For example, a new advertisement may be downloaded in connection with the earlier of the expiration date or the advertisement having been displayed a specified number of times.” Macaluso ’238 at [0038].<br><br>“The second aspect of the present invention is a service processing device comprising: an interface that performs short-range communication with a mobile communication device directly or indirectly; a memory that stores place data; and a controller that receives attribute data of a user or user's mobile communication device from user's mobile communication device, transfers the attribute data and the place data read out from the memory to the server, and performs announcement based upon recommendation data corresponding to the place data received from the server.” Kinoshita ’866 at [0010].<br><br>“The processing circuit 59 displays a questionnaire page on the display 54 when a user operates the operation unit 56. The processing circuit 59 updates the questionnaire page according to user's filling of the questionnaire. The questionnaire contents include items useful for judging user's emotions.” Kinoshita ’866 at [0033].<br><br>“The processing circuit 59 performs the process of changing the surveyed questionnaire data to upper level category data. Specifically, the processing circuit 59 changes the current-level data into upper level category data for the surveyed questionnaire data. For example, if the surveyed data is “address: Los Angels, favorite singer: Japanese rock singer, and favorite food: sushi”, then it is changed to upper level category data like this, “address: west coast, favorite singer: rock singer, and favorite food: Japanese food”. The above-mentioned category-level change, which is made by the processing circuit 59, uses a prepared correspondence table in which each word is associated with its upper level category word. The processing circuit 59, if desired, may also use one of a plurality of correspondence tables wherein each table has a different category level data. Thus a user can select a category level when he changes the present category level into an upper category level. Instead of using the cellular phones 12-1 and 12-2, mobile information devices such as mobile game machines and PDAs may also be used.” Kinoshita ’866 at [0035].<br><br>“The advertisement selecting unit 35 selects suitable advertisement data from the advertisement data stored in the memory 78 based upon both the changed questionnaire data and place data that are transferred from the cellular phone 12-1. Specifically, the advertisement selecting unit 35 designates a tag corresponding to user's preference based upon the prepared correspondence table, in which tags are beforehand associated with user's preferences based upon the changed questionnaire data. And the advertisement selecting unit 35 also designates a tag corresponding to the above place based upon the prepared correspondence table. Then the |

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| | advertisement selecting unit 35 selects a plurality of advertisement items having the above tags by searching advertisement data stored in the memory 78. The advertisement selecting unit 35 also selects advertisement data based upon both the place data and the environment data around the service device 14, as will be described later.” Kinoshita ’866 at [0043].<br><br>“The first process is a process in which the communication system 1 of FIG. 1 performs delivery of advertisement content based upon the changed questionnaire data. FIG. 5 is a flowchart of the first process of the communication system 1 of FIG. 1.” Kinoshita ’866 at [0048].<br><br>“The processing circuit 59 of the cellular phone 12-1 of FIG. 2 displays a questionnaire page on the display 54 when a user operates the operation unit 56. The processing circuit 59 updates the questionnaire page according to the progress of user's entry operation. The processing circuit 59 stores the entered questionnaire data in the memory 58.” Kinoshita ’866 at [0050].<br><br>“The processing circuit 59 reads out the surveyed questionnaire data from the memory 58 and changes the words to upper level category words, as described above.” Kinoshita ’866 at [0052].<br><br>“The processing circuit 59 transfers the changed questionnaire data produced in the step ST2 to the service device 14 through short-range communication operated by the IC chip 55. Then the service device 14 in FIG. 3 transfers the received changed-questionnaire data to the memory 68.” Kinoshita ’866 at [0054].<br><br>“The processing circuit 69 of the service device 14 of FIG. 3 reads out the changed questionnaire data and the place data from the memory 68, and transfers them to the Web server 24 via the interface 62. Then the processing circuit 79 of the Web server 24 of FIG. 4 transfers the received changed-questionnaire data and the place data to the memory 68.” Kinoshita ’866 at [0056].<br><br>“The processing circuit 79 of the Web server 24 selects suitable advertisement data from the advertisement data stored in the memory 78, based upon the changed questionnaire data and the place data.” Kinoshita ’866 at [0058].<br><br>“Based upon user's personal information, user's preference information, and the pre-changed questionnaire data stored in the memory 58, the processing circuit 59 selects advertisement data suitable for the present user from the advertisement data downloaded in the step ST9. The processing circuit 59 displays images corresponding to the selected advertisement data on the display 54.” Kinoshita ’866 at [0068].<br><br>“According to the above-mentioned first process, since the questionnaire data is sent to the service device 14 and the Web server 24 after the questionnaire data stored in the cellular phone 12-1 has been changed to the |

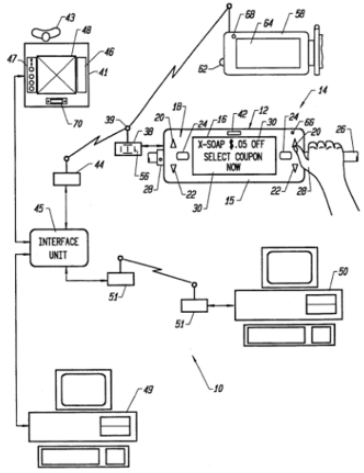
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| | upper level category data, the selected advertisement data is not necessarily known to others, so that users can protect their privacy. Users also can get suitable advertisement data which reflects the surveyed questionnaire.” Kinoshita ’866 at [0069].<br><br>“The processing circuit 79 of the Web server 24 selects suitable advertisement data from the advertisement data stored in the memory 78 based upon the APL-IDs, environment data, and the place data, which are read out from the memory 78. Specifically, the processing circuit 79 designates the corresponding tags based upon the prepared correspondence table, in which tags are beforehand associated with kinds of application program being implemented in the cellular phone 12-1, environments around the service device 14, and place data. And the processing circuit 79 selects a plurality of advertisements with the above tags by searching advertisement items stored in the memory 78.” Kinoshita ’866 at [0080].<br><br>“In the first process and the second process, though the advertisement data is used as recommendation data, the following data may be used as recommendation data. For example, the processing circuit 79 of the Web server 24 designates degree of fatigue, or kinds of emotions such as delight, anger, sorrow, and pleasure based upon the changed questionnaire data. And the processing circuit 79 selects various recommendation data based upon a kind of application program, the designated degree of fatigue, the designated kind of the emotion, and place data. Further, in the case where the cellular phone 12-1 is implementing a karaoke application, if user's feeling is designated as “pleasure”, the processing circuit 79 may recommend a pleasurable music. Further, in the case where the cellular phone 12-1 is implementing an application regarding transportation, if user's feeling is designated as “fatigue”, the processing circuit 79 may recommend a transportation route that probably provides a train seat on the way to home. Further, in the case where the cellular phone 12-1 is implementing an application regarding a theme park, if user's feeling is designated as “anger”, the processing circuit 79 may recommend a ride on which a user can blow off anger. Further, in the case where the cellular phone 12-1 is implementing an application regarding DVD rental, if user's feeling is designated as “fatigue”, the processing circuit 79 may recommend an easy movie. And if user's feeling is designated as “anger”, the processing circuit 79 may recommend a violent movie. Further, in addition to the emotions such as delight, anger, sorrow, and pleasure, atmosphere may be used when the processing circuit 79 recommends something. The processing circuit 79 may also recommend a thing suitable for going-home time based upon the place data and the time data.” Kinoshita ’866 at [0082].<br><br>“The cellular phone 12-1 communicates with the service device 14 via the R/W device 16 by using the function of the application program APL. At this time, the cellular phone 12-1 transfers attribute data and a list of advertisement videos and digital content data, which are stored in the memory 58 of FIG. 2, to the service device 14, as well as given service requests. The service device 14 transfers the above things received |

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| | from the cellular phone 12-1 to the memory 68 of FIG. 3. The attribute data includes, for example, user's age, gender, and preferences.” Kinoshita ’866 at [0096].<br><br>“The processing circuit 69 of the service device 14 of FIG. 3 reads out APL-IDs and the place data from the memory 68 and transfers them to the Web server 24 via the interface 62. The processing 79 of the Web server 24 of FIG. 4 receives APL-IDs and transfers them to the memory 78.” Kinoshita ’866 at [0098].<br><br>“The processing circuit 79 of the Web server 24 reads out APL-IDs and the place data from the memory 78, and based upon both of them the processing circuit 79 selects suitable advertisement from the advertisement stored in the memory 78. That is, the processing circuit 79, based upon both of a type of application program being implemented by the cellular phone 12-1 and a place of the service device 14, searches the corresponding advertisement videos and digital content data in the memory 78. The advertisement video is associated with the digital content data in a one-to-one correspondence, and both are assigned a type of application program and place data.” Kinoshita ’866 at [0100].<br><br>“The service device 14 selects advertisement videos and digital content data to be transferred to the cellular phone 12 based upon the attribute data and the list of advertisement videos and digital content data received in the step ST24. Specifically, the processing circuit 69 of the service device 14, based upon the attribute data received from the cellular phone 12-1, makes a list satisfying preferences of the user carrying the cellular phone 12-1 by searching the list of the advertisement videos and digital content data that are stored in the memory 68. Then, from the list made in this step, the processing circuit 69 selects advertisement videos and digital content data that are not found in the list received from the cellular phone 12-1.” Kinoshita ’866 at [0106].<br><br>“The processing circuit 59 displays the received advertisement video on the display 54 when the reception of the advertisement video completes. The processing circuit 59 displays a plurality of advertisement videos in predetermined order when a plurality of advertisement videos are stored in the memory 58. In this case the processing circuit 59 may display a plurality of advertisement videos in priority order that is based upon the attribute data of the user carrying the cellular phone 12-1.” Kinoshita ’866 at [0111].<br><br>“The cellular phone 12-1 accesses, for example, the Web server 24 according to user's operation of the operation unit 56. This access makes the processing circuit 79 of the Web server 24 read out the default video from the memory 78 and transfer it to the cellular phone 12-1. In the default video, an advertising area on the screen is located at, for example, the top of a page. At this time, the Web server 24 receives the attribute data from the cellular phone 12-1 and selects a default video that matches user's preference based upon the attribute data, and transfers the default video to the cellular phone 12-1. The cellular phone 12-1 transfers the |

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| | default video, which is received from the Web server 24, to the memory 58 of FIG. 2.” Kinoshita ’866 at [0115].<br><br>“In this registration process, the cellular phone 12-1 transfers data such as age, gender, preference, and local information to the Web server 24 to register them.” Kinoshita ’866 at [0119].<br><br>“Further, in accordance with the communication system 1 of the present invention, the advertisement videos are selected based upon attributes of the cellular phone 12-1 and are transferred from the cellular phone 12-1 to the service device 14 in order to store them. Therefore, it is possible to display advertisement videos matching the preference of the user of the cellular phone 12-1.” Kinoshita ’866 at [0135].<br><br>“Further, when the cellular phone 12-1 communicates with the service device 14 via R/W device 16, the service device 14 transfers optimum-timing combination data to the cellular phone 12-1. The cellular phone 12-1 or 12-2 displays an advertisement video based upon the default combination data for the first time. However, next time, the cellular phone 12-1 or 12-2 displays advertisement data based upon a new combination data received through communication with the service device 14.” Kinoshita ’866 at [0142].<br><br>“In the present embedment, the cellular phone 12-1 or 12-2 generates and stores content-transfer history data TD in which a history of digital content data transferred between the above two cellular phones and other cellular phones is recorded. The content-transfer history data TD is finally stored in the Web server 24.” Kinoshita ’866 at [0145].<br><br>“Specifically, when the cellular phone 12-1 or 12-2 transfers digital content data to other cellular phone, and vice versa, its transfer history is added to the content-transfer history data TD stored in the memory 58.” Kinoshita ’866 at [0146].<br><br>“When the cellular phone 12-1 or 12-2 accesses the Web server 24, the cellular phone 12-1 or 12-2 reads out the content-transfer history data TD and transfers it to the Web server 24. This transfer is performed, for example, at the time when an application program APL is downloaded, or when advertisement member registration is performed. When the cellular phone 12-1 or 12-2 transfers the content-transfer history data TD to the Web server 24, this transfer may be implemented after the original content-transfer history data has been changed to the upper-level category data. When the change to the upper-level category data is performed, for example, each ID of cellular phone is changed to classified ID that is classified to a given ID, or each due date is changed to a given period of the due date that covers a certain period of due data. Here, the classified ID is, for example, an ID assigned to a type of cellular phone.” Kinoshita ’866 at [0147]. |

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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>“If there is no match, the signal transmitted graphic is stored into the memory of the display unit and the signal transmitted graphic is simultaneously displayed on the screen of the display unit. Similarly, if there is a match but the transmitted graphic is an updated version, then the stored memory graphic is dated and replaced with the updated signal transmitted graphic.” Begum ’880 at 2:6–12.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“The data signal is a digital signal that includes both the product control signals and the screen graphic signal. The product control signals include data about the promotion that is not in the screen graphic and that does not appear on the display screen 24 of the display unit 12. This data may include the universal product identification number, the date or iteration number of the promotional graphic, and, the identification number of the transceiver unit, which is useful in tracking the path of a shopper through the market area. The screen graphic signal contains the digitized data that is received by the display unit 12 and formatted for display on the display screen. For example, a compressed screen graphic signal must be decompressed by the central processor before it is relayed to the LCD controller and driver 72. ” Begum ’880 at 9:16–29.<br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55. |

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| | “With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>“To assist a user in locating items, the generic names are listed with an aisle directory listing for each category as shown in FIG. 8. In one embodiment of operation, an updatable series of advertisements, particularly select sales items for which the product producers or distributors have paid advertisement fees to the system operator, is retained in memory. Periodically, during a state of activation of the display device when the shopper is not using the display unit, the display screen is activated for a set time, for example ten seconds, and a select product advertisement is displayed as shown in FIG. 9. Preferably, the advertisement contains a sale price, as shoppers prefer not to refer to simple product name advertisements. To alert the shopper that a promotional message is being displayed, a cue signal, such as a pleasant chime, light or handle vibration is generated at the beginning of the message. The cue signal is also generated when the promotional message is activated by the transceiver units 65 located proximate the promoted product.” Begum ’880 at 10:52–11:3.<br><br>“To improve the likelihood that the shopper will look at the display screen when cued, a prize code is intermittently flashed on the screen instead of a scheduled advertisement. This code may be in the form of an automatically reprogrammable four digit number as shown in FIG. 10. When the number is related to the check-out clerk, a monetary coupon or reduction in the check-out tally is granted.” Begum ’880 at 11:11–17.<br><br>*See also* Begum ’880 at 8:36–47 and 10:16–31. |

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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“After viewing the coupon, the shopper may elect to select the displayed coupon by pressing one of the select buttons 24 on the control panel 15 of the portable communication unit 14, while the coupon is being displayed, or within an additional short period of time after display. The relevant product control data relating to the selected coupon and the related product, such as the coupon identification number, product identification number, bar code number, and savings amount, are then stored in a coupon exception file 36 in the memory 34 of the communication unit 14. The product identification number will customarily correspond to the universal product code (UPC).<br>The portable communication unit 14 has an internal wireless communicator 38, in the form of an infrared or radio frequency transmitter 39, schematically represented in FIG. 1. When the communication unit 14 is prompted at a checkout counter 41, for example, manually by the checkout person 43 manipulating a reset switch 42 on the communication unit 14, the coupon exception file 36 is transmitted by the transmitter 39 to a receiver 44 in an electronic coupon interface unit 45 at the checkout counter, and the file in the communication unit 14 is cleared for reuse” Begum ’606 at 4:50–5:5. |

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| | “In some embodiments, for example, the method may include selectively serving the content item based on a personal data item representing a property of a user of said wireless communication device. In some embodiments, for example, the data item is selected from a group consisting of: a data item representing an age of the user, a data item representing an age group of the user, a data item representing a gender of the user, a data item representing an occupation of the user, a data item representing a profession of the user, and a data item representing usage pattern associated with the user.” Levkovitz ’852 at [0027].<br><br>“Device 170 may store or otherwise log information related to presentations performed by device 170, e.g., data indicating the content item(s) presented, data the starting time and/or ending time of the presentations, data indicating operations performed by device 170 and/or the user of device 170 during or after the presentation (e.g., pressing a button, dialing, sending a SMS or MMS message, placing a call, or the like). Device 170 may periodically upload the logged data, e.g., to communicator 150, which may aggregate such data from multiple wireless communication devices.” Levkovitz ’852 at [0104].<br><br>“Data analyzer 134 may analyze inventory data and campaign-related data and may produce reports, e.g., statistical reports for advertisers and/or an administrator of system 100, market research reports, data mining reports, On-Line Analytical Processing (OLAP) reports, or the like.” Levkovitz ’852 at [0110].<br><br>“Together with or upon presentation of a content item, device 170 may register or log, for example, in memory unit 187, properties related to that presentation, e.g., an identifier of application 176, a location identifier, a presentation starting time, a presentation ending time, the total presentation time, a user's response to the presentation (e.g., user viewed the presentation, user aborted or interrupted or paused the presentation, user pressed a button, user initiated a call or sent a SMS item, user interacted with the presented content item, or the like), and other data. Presentation-related data may be reported by reporter 181 to communicator 150, e.g., periodically, upon demand, together with a subsequent content request, when a pre-defined condition is met, upon presenting a certain number of content items, or the like. In one embodiment, reporter 181 may be triggered or activated by content client 174, presentation service 182, server communicator 177, or other components of device 170.” Levkovitz ’852 at [0161].<br><br>“In some embodiments, for example, a presentation report or presentation-related data may be transmitted by device 170 substantially together with a subsequent content request; for example, a second content request may include a presentation report related to content items presented since a previous report was transmitted, since a previous content request was transmitted, or the like. This may, for example, allow utilizing a single communication session to transmit both a content request and a presentation report. This may, for example, obviate the need to open a first communication session to transmit the content request and a second |

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| | communication session to transmit the presentation report, or reduce the number of communication transactions required.” Levkovitz ’852 at [0162].<br><br>“A content request created by content client 174 may include data representing one or more properties of device 170 and/or one or more properties of the user of device 170, for example, a version identifier of content client 174, an identifier of application 176, an identifier of device 170 (e.g., manufacturer, model, or the like), local time, installation time, last connection time, Operating System (OS) type and version, total memory size of device 170, free or available memory of device 170, free or available memory in local repository 171, screen dimensions (e.g., height and width, by pixels), color depth (e.g., as a number of bits available to represent color information), user information, user name, cache content (e.g., list of previous-stored content items within local repository 171), previous presentations data, or the like.” Levkovitz ’852 at [0165].<br><br>“As indicated at box 255, the method may optionally include, for example, transmitting by device 170 to communicator 150 an activity report indicating properties of, or data related to, presentations presented by device 170.” Levkovitz ’852 at [0188].<br><br>“Some embodiments may utilize a taxonomy, for example, a pre-defined classification into categories, e.g., in a tree structure having “branches”, or other hierarchical structure. For example, a branch may be “games”, having sub-branches of “sports” and “arcade”; and the “sports” sub-branch may have sub-sub-branches of “basketball”, “football” and “tennis”. In some embodiments, an advertisement presented to a user, or inserted into a SMS/MMS/IM/Email message, may be selected based on taxonomy-based analysis. For example, if a user played a football game on his mobile phone, and further played a basketball game on his mobile phone, the system may present to this user, or insert into SMS/MMS/IM/Email messages that this user sends and/or receives, advertisements or content items which may be sports-related.” Levkovitz ’852 at [0221].<br><br>*See also* Levkovitz ’852 at Fig. 2, [0007], and [0008].<br><br>*See also* Sanctis ’837 at [0063] and [0067].<br><br>“Media monitoring information may be generated based on, for example, audio codes, signatures (e.g., a representation of any characteristic of monitored audio such as, for example, a characteristic of a program signal), radio frequency (RF) codes, and/or any other codes, information, or identifiers that may be extracted from and/or otherwise associated with a media presentation to which a monitored person is exposed. ” Mello ’479 at [0027]. |

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| | “The RF location interface 148 may also be configured to broadcast location-related information such as, for example, time-stamped PPM identification codes. The time-stamped PPM identification codes may be received by, for example, three or more of the relay devices such as the relay device 64, which may process the codes cooperatively using triangulation techniques to determine the location of the PPM 30. The relay devices 64 may communicate the received time-stamped PPM identification codes to the central facility 60 along with information relating to the times at which the codes were received by each of the relay devices 64. The central facility 60 may then determine the location of the PPM 30 based on this information.” Mello ’479 at [0048].<br><br>“The PPM 30 may collect/generate and store media monitoring information (e.g., audience measurement codes (e.g., codes inserted to identify media, sometimes referred to as “ancillary codes”), signatures, etc.) associated with any media (e.g., video, audio, movies, music, still pictures, advertising, etc.) to which the monitored person 32 is exposed. For example, the PPM 30 may be configured to obtain codes (e.g., audio codes), generate or collect signatures, etc. that may be used to identify video programs (e.g., DVD movies, television programming, etc.), audio programs (e.g., CD audio, radio programming, etc.), and/or any other media. Using one or more media detection devices described above in connection with FIG. 2, the PPM 30 may collect media monitoring information associated with presented or delivered media to which the monitored person 32 may be exposed.<br><br>Additionally, the PPM 30 may be configured to receive codes (e.g., audio codes and/or RF codes) associated with other forms of media such as, for example, billboards or any other form of publicly viewable advertising or media. For example, each billboard (e.g., the billboard 20) may include an audio broadcasting device and/or an RF broadcasting device such as, for example, the transceiver 22 of FIG. 1, configured to emit a billboard code that uniquely identifies that billboard. If the PPM 30 is proximate to a billboard, the PPM 30 may obtain the billboard code as media monitoring information, thereby indicating that the monitored person 32 was exposed to the billboard. In addition, the PPM 30 may be configured to obtain direction information via, for example, the compass 150, and log the direction in which the monitored person 32 is facing or traveling so that subsequent data analyses may determine if the monitored person 32 was likely facing the billboard.” Mello ’479 at [0060]–[0061].<br><br>“The reference media codes/signatures database 211 is configured to store advertisement identifiers in association with respective media representation information such as codes or signatures that are known to be associated with, correspond to, or that otherwise identify those advertisements. For example, the reference media codes/signatures database 211 can store reference audio codes or signatures that identify respective audio advertisements, reference video codes, or signatures that identify respective video advertisements, |

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| | and/or RF codes or signatures that identify respective advertisements (e.g., the billboard 20 of FIG. 1) having RF transmitters (e.g., the RF transmitter 22 of FIG. 1) that emit codes or unique RF signals. The data analyzer 208 can compare codes or signatures collected by the PPM's 30, 34, and 36 (FIG. 1) to the known codes or signatures in the reference media codes/signatures database 211 to determine audio, video, or other stationary advertisements to which the monitored persons 32, 38, and 40 were exposed. In addition, the data analyzer 208 can use the advertisement identifier information in the reference media codes/signatures database 211 in connection with the geo-coded advertisement database 210 to determine the locations at which the advertisements were presented.<br><br>In the illustrated example, the data analyzer 208 can retrieve information from the database 72 to perform analyses and can store analysis results in the database 72 for subsequent retrieval by a metering entity or a business interested in receiving the analysis results. In the illustrated example, the database 72 includes a storefront and product geo-coded knowledgebase 212 and a consumer behavior knowledgebase 214. The storefront and product geo-coded knowledgebase 212 stores retail establishment identifiers and product/service identifiers in association with respective location identifiers indicative of the locations of those retail establishments and products/services. In some example implementations, the data analyzer 208 can retrieve the associated identifiers from the storefront and product geo-coded knowledgebase 212 to determine whether a user visited a particular retail establishment and/or purchased a product or service at a particular retail establishment. The storefront and product geo-coded knowledgebase 212 can be setup and configured by a metering entity (e.g., a metering business implementing the example methods and apparatus described herein) upon initial system setup to associate location identifiers with respective retail establishments and/or products/services. The knowledgebase 212 is maintained thereafter to keep location identifier associations up to date. In some example implementations, the storefront and product geo-coded knowledgebase 212 is updated based on data collected by the PPM 30. For example, purchase data stored by the PPM 30 in association with location information may include a retail establishment name or identifier that the storefront and product geo-coded knowledgebase 212 can use to update location identifier associations and/or add new location identifier associations.” Mello ’479 at [0076]–[0077].<br><br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that |

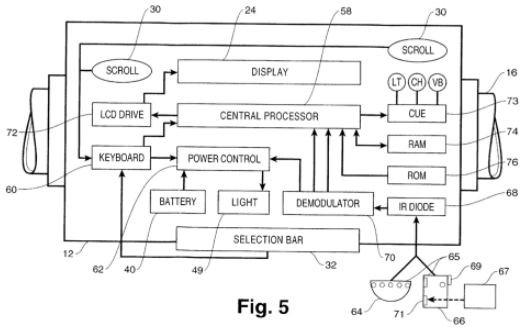
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| | user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br><br>“In some forms of the invention, a user's favorite businesses and attractions are determined. For purposes of illustration and without limitation, these locations may be determined by analyzing the location information to determine the frequency with which the user of the mobile device visits particular businesses or particular types of businesses; the amount of time spent at the business location; by reference to positive or negative or numerical ratings the user associates with particular businesses or business types (such ratings can be entered via a menu on a mobile device or through an application or webpage associated with the user's profile). The ratings are positive or negative such as thumbs up and thumb down but may also be numerical such as a rating one through five.” Busch ’815 at [0364].<br><br>“For purposes of illustration and without limitation, information is sent to the mobile device containing points that correspond to locations where if the user is in proximity to the point, the mobile device takes an action, or manifests an intent to take an action. The action is displaying targeted content but it may also be responding with additional information, changing the behavior of the mobile device (e.g., location reporting frequency, content display settings, etc.), or any other action desired or combination of actions desired.” Busch ’815 at [0372].<br><br>“As such, in response to the request and a location of the user 74-1, the customized content delivery function 78 selects one or more advertisements for the user 74-1 in the manner discussed above.” Svendsen ’073 at 14:39–42.<br><br>“The selected advertisements may then be delivered to the user 74-1 in association with results of the Internet search request.” Svendsen ’073 at 14:42–44.<br><br>*See also* Svendsen ’073 at 11:17–32.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

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| [3b] providing additional content to the registered application in response to the received information. | The following prior art expressly or inherently discloses and renders obvious “providing additional content to the registered application in response to the received information.” For example:<br><br>“The account interface can allow users to specify the types or categories of advertisements that the users would be interested in receiving. Users can define alerts that allow them to receive specific types of advertisements. Allowing users to select categories of offers increases the likelihood that the user will be interested in the goods or services advertised. ” Hughes ’666 at [0083].<br><br>*See also* Hughes ’666 at [0038].<br><br>“The processing circuit 59 displays a questionnaire page on the display 54 when a user operates the operation unit 56. The processing circuit 59 updates the questionnaire page according to user's filling of the questionnaire. The questionnaire contents include items useful for judging user's emotions.” Kinoshita ’866 at [0033].<br><br>“The advertisement selecting unit 35 selects suitable advertisement data from the advertisement data stored in the memory 78 based upon both the changed questionnaire data and place data that are transferred from the cellular phone 12-1. Specifically, the advertisement selecting unit 35 designates a tag corresponding to user's preference based upon the prepared correspondence table, in which tags are beforehand associated with user's preferences based upon the changed questionnaire data. And the advertisement selecting unit 35 also designates a tag corresponding to the above place based upon the prepared correspondence table. Then the advertisement selecting unit 35 selects a plurality of advertisement items having the above tags by searching advertisement data stored in the memory 78. The advertisement selecting unit 35 also selects advertisement data based upon both the place data and the environment data around the service device 14, as will be described later.” Kinoshita ’866 at [0043].<br><br>“The first process is a process in which the communication system 1 of FIG. 1 performs delivery of advertisement content based upon the changed questionnaire data. FIG. 5 is a flowchart of the first process of the communication system 1 of FIG. 1.” Kinoshita ’866 at [0048].<br><br>“The processing circuit 59 of the cellular phone 12-1 of FIG. 2 displays a questionnaire page on the display 54 when a user operates the operation unit 56. The processing circuit 59 updates the questionnaire page according to the progress of user's entry operation. The processing circuit 59 stores the entered questionnaire data in the memory 58.” Kinoshita ’866 at [0050]. |

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| | “The processing circuit 59 reads out the surveyed questionnaire data from the memory 58 and changes the words to upper level category words, as described above.” Kinoshita ’866 at [0052].<br><br>“The processing circuit 59 transfers the changed questionnaire data produced in the step ST2 to the service device 14 through short-range communication operated by the IC chip 55. Then the service device 14 in FIG. 3 transfers the received changed-questionnaire data to the memory 68.” Kinoshita ’866 at [0054].<br><br>“The processing circuit 69 of the service device 14 of FIG. 3 reads out the changed questionnaire data and the place data from the memory 68, and transfers them to the Web server 24 via the interface 62. Then the processing circuit 79 of the Web server 24 of FIG. 4 transfers the received changed-questionnaire data and the place data to the memory 68.” Kinoshita ’866 at [0056].<br><br>“The processing circuit 79 of the Web server 24 selects suitable advertisement data from the advertisement data stored in the memory 78, based upon the changed questionnaire data and the place data.” Kinoshita ’866 at [0058].<br><br>“The processing circuit 69 of the service device 14 reads out the advertisement data recorded in the step ST6 and displays the corresponding images on the display 64.” Kinoshita ’866 at [0064].<br><br>“Based upon user's personal information, user's preference information, and the pre-changed questionnaire data stored in the memory 58, the processing circuit 59 selects advertisement data suitable for the present user from the advertisement data downloaded in the step ST9. The processing circuit 59 displays images corresponding to the selected advertisement data on the display 54.” Kinoshita ’866 at [0068].<br><br>“According to the above-mentioned first process, since the questionnaire data is sent to the service device 14 and the Web server 24 after the questionnaire data stored in the cellular phone 12-1 has been changed to the upper level category data, the selected advertisement data is not necessarily known to others, so that users can protect their privacy. Users also can get suitable advertisement data which reflects the surveyed questionnaire.” Kinoshita ’866 at [0069].<br><br>“The processing circuit 79 of the Web server 24 selects suitable advertisement data from the advertisement data stored in the memory 78 based upon the APL-IDs, environment data, and the place data, which are read out from the memory 78. Specifically, the processing circuit 79 designates the corresponding tags based upon the prepared correspondence table, in which tags are beforehand associated with kinds of application program being implemented in the cellular phone 12-1, environments around the service device 14, and place data. |

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| | And the processing circuit 79 selects a plurality of advertisements with the above tags by searching advertisement items stored in the memory 78.” Kinoshita ’866 at [0080].<br><br>“In the first process and the second process, though the advertisement data is used as recommendation data, the following data may be used as recommendation data. For example, the processing circuit 79 of the Web server 24 designates degree of fatigue, or kinds of emotions such as delight, anger, sorrow, and pleasure based upon the changed questionnaire data. And the processing circuit 79 selects various recommendation data based upon a kind of application program, the designated degree of fatigue, the designated kind of the emotion, and place data. Further, in the case where the cellular phone 12-1 is implementing a karaoke application, if user's feeling is designated as “pleasure”, the processing circuit 79 may recommend a pleasurable music. Further, in the case where the cellular phone 12-1 is implementing an application regarding transportation, if user's feeling is designated as “fatigue”, the processing circuit 79 may recommend a transportation route that probably provides a train seat on the way to home. Further, in the case where the cellular phone 12-1 is implementing an application regarding a theme park, if user's feeling is designated as “anger”, the processing circuit 79 may recommend a ride on which a user can blow off anger. Further, in the case where the cellular phone 12-1 is implementing an application regarding DVD rental, if user's feeling is designated as “fatigue”, the processing circuit 79 may recommend an easy movie. And if user's feeling is designated as “anger”, the processing circuit 79 may recommend a violent movie. Further, in addition to the emotions such as delight, anger, sorrow, and pleasure, atmosphere may be used when the processing circuit 79 recommends something. The processing circuit 79 may also recommend a thing suitable for going-home time based upon the place data and the time data.” Kinoshita ’866 at [0082].<br><br>“The cellular phone 12-1 communicates with the service device 14 via the R/W device 16 by using the function of the application program APL. At this time, the cellular phone 12-1 transfers attribute data and a list of advertisement videos and digital content data, which are stored in the memory 58 of FIG. 2, to the service device 14, as well as given service requests. The service device 14 transfers the above things received from the cellular phone 12-1 to the memory 68 of FIG. 3. The attribute data includes, for example, user's age, gender, and preferences.” Kinoshita ’866 at [0096].<br><br>“The processing circuit 79 of the Web server 24 reads out APL-IDs and the place data from the memory 78, and based upon both of them the processing circuit 79 selects suitable advertisement from the advertisement stored in the memory 78. That is, the processing circuit 79, based upon both of a type of application program being implemented by the cellular phone 12-1 and a place of the service device 14, searches the corresponding advertisement videos and digital content data in the memory 78. The advertisement video is |

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| | associated with the digital content data in a one-to-one correspondence, and both are assigned a type of application program and place data.” Kinoshita ’866 at [0100].<br><br>“The processing circuit 79 of the Web server 24 transfers the advertisement videos and the digital content data selected in the step ST26 to the service device 14 via the interface 72. The processing circuit 69 of the service device 14 transfers the received advertisement videos and the digital content data to the memory 68.” Kinoshita ’866 at [0102].<br><br>“The service device 14 selects advertisement videos and digital content data to be transferred to the cellular phone 12 based upon the attribute data and the list of advertisement videos and digital content data received in the step ST24. Specifically, the processing circuit 69 of the service device 14, based upon the attribute data received from the cellular phone 12-1, makes a list satisfying preferences of the user carrying the cellular phone 12-1 by searching the list of the advertisement videos and digital content data that are stored in the memory 68. Then, from the list made in this step, the processing circuit 69 selects advertisement videos and digital content data that are not found in the list received from the cellular phone 12-1.” Kinoshita ’866 at [0106].<br><br>“The processing circuit 69 of the service device 14 reads out, from the memory 68, data necessary for answering the service requests received in the step ST24. Then the service device 14 transfers the data necessary for the service requests and both the advertisement videos and digital content data selected in the step ST29 to the cellular phone 12-1 via the R/W device 16. At this time the advertisement videos are associated with the digital content data in one-to-one correspondence. The digital content data includes, for example, live videos, animation videos, ring tones, and standby screens. The digital video data is available on condition that users of the cellular phones 12-1 and 12-2 are registered as a member in the Web server 24. Transferring data to the cellular phone 12-1, the service device 14 displays an advertisement video on the display 64.” Kinoshita ’866 at [0108].<br><br>“The processing circuit 59 displays the received advertisement video on the display 54 when the reception of the advertisement video completes. The processing circuit 59 displays a plurality of advertisement videos in predetermined order when a plurality of advertisement videos are stored in the memory 58. In this case the processing circuit 59 may display a plurality of advertisement videos in priority order that is based upon the attribute data of the user carrying the cellular phone 12-1.” Kinoshita ’866 at [0111].<br><br>“The cellular phone 12-1 accesses, for example, the Web server 24 according to user's operation of the operation unit 56. This access makes the processing circuit 79 of the Web server 24 read out the default video from the memory 78 and transfer it to the cellular phone 12-1. In the default video, an advertising area on the |

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| | screen is located at, for example, the top of a page. At this time, the Web server 24 receives the attribute data from the cellular phone 12-1 and selects a default video that matches user's preference based upon the attribute data, and transfers the default video to the cellular phone 12-1. The cellular phone 12-1 transfers the default video, which is received from the Web server 24, to the memory 58 of FIG. 2.” Kinoshita ’866 at [0115].<br><br>“Further, in accordance with the communication system 1 of the present invention, the advertisement videos are selected based upon attributes of the cellular phone 12-1 and are transferred from the cellular phone 12-1 to the service device 14 in order to store them. Therefore, it is possible to display advertisement videos matching the preference of the user of the cellular phone 12-1.” Kinoshita ’866 at [0135].<br><br>“Further, when the cellular phone 12-1 communicates with the service device 14 via R/W device 16, the service device 14 transfers optimum-timing combination data to the cellular phone 12-1. The cellular phone 12-1 or 12-2 displays an advertisement video based upon the default combination data for the first time. However, next time, the cellular phone 12-1 or 12-2 displays advertisement data based upon a new combination data received through communication with the service device 14.” Kinoshita ’866 at [0142].<br><br>“By using the content-transfer history data TD, the Web server 24 can have a network of preference based upon the attributes of the digital content data.” Kinoshita ’866 at [0148].<br><br>*See also* Ahn ’281 at [0077] and [0078].<br><br>  <br><br>Fig. 5<br><br>Begum ’880 at Fig. 5.<br><br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the |

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| | promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br><br>“The data signal is a digital signal that includes both the product control signals and the screen graphic signal. The product control signals include data about the promotion that is not in the screen graphic and that does not appear on the display screen 24 of the display unit 12. This data may include the universal product identification number, the date or iteration number of the promotional graphic, and, the identification number of the transceiver unit, which is useful in tracking the path of a shopper through the market area. The screen graphic signal contains the digitized data that is received by the display unit 12 and formatted for display on the display screen. For example, a compressed screen graphic signal must be decompressed by the central processor before it is relayed to the LCD controller and driver 72. ” Begum ’880 at 9:16–29.<br><br>“The product control data is a short alphanumeric string which in seven bit ASCHII code can be transmitted in a small fraction of a second. Using standard compression algorithms for the bit-mapped screen graphic, the product control data and the promotional screen graphic can be transmitted well within the two second permissible time frame.” Begum ’880 at 9:38–44.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>“To assist a user in locating items, the generic names are listed with an aisle directory listing for each category as shown in FIG. 8. In one embodiment of operation, an updatable series of advertisements, particularly select sales items for which the product producers or distributors have paid advertisement fees to |

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| | the system operator, is retained in memory. Periodically, during a state of activation of the display device when the shopper is not using the display unit, the display screen is activated for a set time, for example ten seconds, and a select product advertisement is displayed as shown in FIG. 9. Preferably, the advertisement contains a sale price, as shoppers prefer not to refer to simple product name advertisements. To alert the shopper that a promotional message is being displayed, a cue signal, such as a pleasant chime, light or handle vibration is generated at the beginning of the message. The cue signal is also generated when the promotional message is activated by the transceiver units 65 located proximate the promoted product.” Begum ’880 at 10:52–11:3.<br><br>“To improve the likelihood that the shopper will look at the display screen when cued, a prize code is intermittently flashed on the screen instead of a scheduled advertisement. This code may be in the form of an automatically reprogrammable four digit number as shown in FIG. 10. When the number is related to the check-out clerk, a monetary coupon or reduction in the check-out tally is granted.” Begum ’880 at 11:11–17.<br><br>*See also* Begum ’880 at 8:36–47 and 10:16–31.<br><br>“In some embodiments, for example, the method may include selectively serving the content item based on a personal data item representing a property of a user of said wireless communication device. In some embodiments, for example, the data item is selected from a group consisting of: a data item representing an age of the user, a data item representing an age group of the user, a data item representing a gender of the user, a data item representing an occupation of the user, a data item representing a profession of the user, and a data item representing usage pattern associated with the user.” Levkovitz ’852 at [0027].<br><br>“Together with or upon presentation of a content item, device 170 may register or log, for example, in memory unit 187, properties related to that presentation, e.g., an identifier of application 176, a location identifier, a presentation starting time, a presentation ending time, the total presentation time, a user's response to the presentation (e.g., user viewed the presentation, user aborted or interrupted or paused the presentation, user pressed a button, user initiated a call or sent a SMS item, user interacted with the presented content item, or the like), and other data. Presentation-related data may be reported by reporter 181 to communicator 150, e.g., periodically, upon demand, together with a subsequent content request, when a pre-defined condition is met, upon presenting a certain number of content items, or the like. In one embodiment, reporter 181 may be triggered or activated by content client 174, presentation service 182, server communicator 177, or other components of device 170.” Levkovitz ’852 at [0161].<br><br>“In some embodiments, content client 174 may periodically establish a connection with ad sever 110, e.g., directly or through communicator 150, to upload data about presented content items, to refresh or update |

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| | content items stored in local repository 171, to update or upgrade the installed version of content client 174, to upload technical information about device 170 and/or personal information about a user of device 170 to allow improved targeting of content items, or the like.” Levkovitz ’852 at [0166].<br><br>“Some embodiments may utilize a taxonomy, for example, a pre-defined classification into categories, e.g., in a tree structure having “branches”, or other hierarchical structure. For example, a branch may be “games”, having sub-branches of “sports” and “arcade”; and the “sports” sub-branch may have sub-sub-branches of “basketball”, “football” and “tennis”. In some embodiments, an advertisement presented to a user, or inserted into a SMS/MMS/IM/Email message, may be selected based on taxonomy-based analysis. For example, if a user played a football game on his mobile phone, and further played a basketball game on his mobile phone, the system may present to this user, or insert into SMS/MMS/IM/Email messages that this user sends and/or receives, advertisements or content items which may be sports-related.” Levkovitz ’852 at [0221].<br><br>*See also* Levkovitz ’852 at Fig. 2, [0007], and [0008].<br><br>*See also* Sanctis ’837 at [0063].<br><br>“Media monitoring information may be generated based on, for example, audio codes, signatures (e.g., a representation of any characteristic of monitored audio such as, for example, a characteristic of a program signal), radio frequency (RF) codes, and/or any other codes, information, or identifiers that may be extracted from and/or otherwise associated with a media presentation to which a monitored person is exposed. ” Mello ’479 at [0027].<br><br>“The RF location interface 148 may also be configured to broadcast location-related information such as, for example, time-stamped PPM identification codes. The time-stamped PPM identification codes may be received by, for example, three or more of the relay devices such as the relay device 64, which may process the codes cooperatively using triangulation techniques to determine the location of the PPM 30. The relay devices 64 may communicate the received time-stamped PPM identification codes to the central facility 60 along with information relating to the times at which the codes were received by each of the relay devices 64. The central facility 60 may then determine the location of the PPM 30 based on this information.” Mello ’479 at [0048].<br><br>“The PPM 30 may collect/generate and store media monitoring information (e.g., audience measurement codes (e.g., codes inserted to identify media, sometimes referred to as “ancillary codes”), signatures, etc.) associated with any media (e.g., video, audio, movies, music, still pictures, advertising, etc.) to which the monitored person 32 is exposed. For example, the PPM 30 may be configured to obtain codes (e.g., audio |

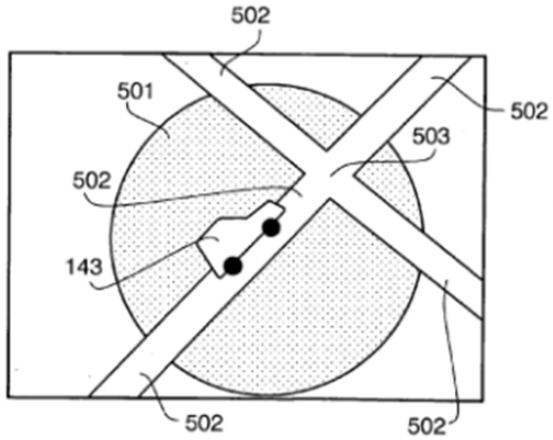
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| | codes), generate or collect signatures, etc. that may be used to identify video programs (e.g., DVD movies, television programming, etc.), audio programs (e.g., CD audio, radio programming, etc.), and/or any other media. Using one or more media detection devices described above in connection with FIG. 2, the PPM 30 may collect media monitoring information associated with presented or delivered media to which the monitored person 32 may be exposed.<br><br>Additionally, the PPM 30 may be configured to receive codes (e.g., audio codes and/or RF codes) associated with other forms of media such as, for example, billboards or any other form of publicly viewable advertising or media. For example, each billboard (e.g., the billboard 20) may include an audio broadcasting device and/or an RF broadcasting device such as, for example, the transceiver 22 of FIG. 1, configured to emit a billboard code that uniquely identifies that billboard. If the PPM 30 is proximate to a billboard, the PPM 30 may obtain the billboard code as media monitoring information, thereby indicating that the monitored person 32 was exposed to the billboard. In addition, the PPM 30 may be configured to obtain direction information via, for example, the compass 150, and log the direction in which the monitored person 32 is facing or traveling so that subsequent data analyses may determine if the monitored person 32 was likely facing the billboard.” Mello ’479 at [0060]–[0061].<br><br>“The reference media codes/signatures database 211 is configured to store advertisement identifiers in association with respective media representation information such as codes or signatures that are known to be associated with, correspond to, or that otherwise identify those advertisements. For example, the reference media codes/signatures database 211 can store reference audio codes or signatures that identify respective audio advertisements, reference video codes, or signatures that identify respective video advertisements, and/or RF codes or signatures that identify respective advertisements (e.g., the billboard 20 of FIG. 1) having RF transmitters (e.g., the RF transmitter 22 of FIG. 1) that emit codes or unique RF signals. The data analyzer 208 can compare codes or signatures collected by the PPM's 30, 34, and 36 (FIG. 1) to the known codes or signatures in the reference media codes/signatures database 211 to determine audio, video, or other stationary advertisements to which the monitored persons 32, 38, and 40 were exposed. In addition, the data analyzer 208 can use the advertisement identifier information in the reference media codes/signatures database 211 in connection with the geo-coded advertisement database 210 to determine the locations at which the advertisements were presented.<br><br>In the illustrated example, the data analyzer 208 can retrieve information from the database 72 to perform analyses and can store analysis results in the database 72 for subsequent retrieval by a metering entity or a business interested in receiving the analysis results. In the illustrated example, the database 72 includes a storefront and product geo-coded knowledgebase 212 and a consumer behavior knowledgebase 214. The |

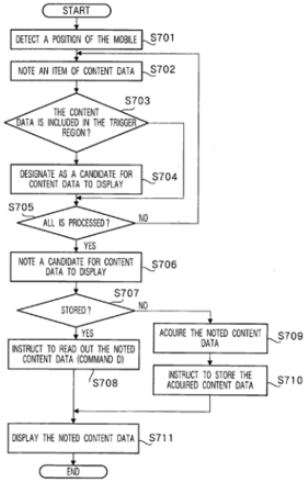
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| | storefront and product geo-coded knowledgebase 212 stores retail establishment identifiers and product/service identifiers in association with respective location identifiers indicative of the locations of those retail establishments and products/services. In some example implementations, the data analyzer 208 can retrieve the associated identifiers from the storefront and product geo-coded knowledgebase 212 to determine whether a user visited a particular retail establishment and/or purchased a product or service at a particular retail establishment. The storefront and product geo-coded knowledgebase 212 can be setup and configured by a metering entity (e.g., a metering business implementing the example methods and apparatus described herein) upon initial system setup to associate location identifiers with respective retail establishments and/or products/services. The knowledgebase 212 is maintained thereafter to keep location identifier associations up to date. In some example implementations, the storefront and product geo-coded knowledgebase 212 is updated based on data collected by the PPM 30. For example, purchase data stored by the PPM 30 in association with location information may include a retail establishment name or identifier that the storefront and product geo-coded knowledgebase 212 can use to update location identifier associations and/or add new location identifier associations.” Mello ’479 at [0076]–[0077].<br><br>“Alternatively, one or more destinations may be determined and the current geographic location information along with a proposed destination is routed to a routing program to obtain a path of travel. Next, a content result set is obtained that contains one or more elements selected based upon at least the likely course or area of travel, specific destination, or specific destinations so that information pertaining to businesses along the course of travel are available to the user. Any number of these results are displayed on the mobile device at appropriate times (e.g., when the user is approaching a business location along a path, when a user is walking around a shopping area, when the user is driving along a highway, when the user performs a search for content or a business, when a user requests route guidance, not when the user is in a movie theater, not when the user is eating dinner, not when the user is at work, etc.).” Busch ’815 at [0280].<br><br>“ If the user is moving slowly, many elements of targeted content associated with the nearby area are sent to the mobile device or retrieved from the memory of the mobile device. If the user is moving faster (For purposes of illustration and without limitation, if they are in a car, on a motorcycle, on a high speed train, etc.) then targeted content associated with businesses in a wider area are sent to the user or retrieved from the memory of the mobile device. This allows the mobile device to display the most relevant content to the user of the mobile device while allowing the content to be displayed a sufficient amount of time so that the user is able to see and react to the content before the content is replaced with more relevant information based upon updated location information available to the mobile device.” Busch ’815 at [0363]. |

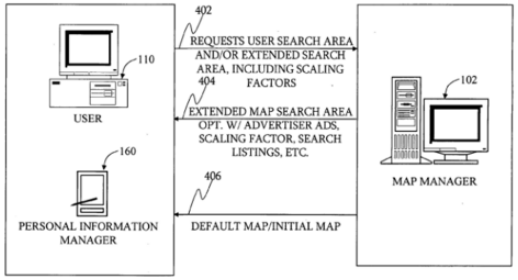
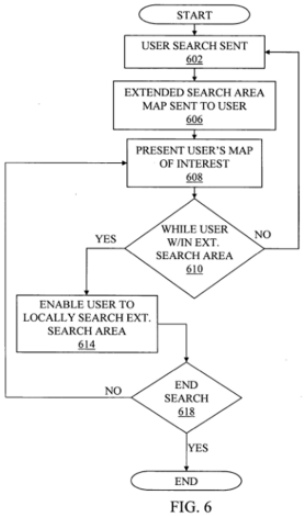
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| | “In some forms of the invention, a user's favorite businesses and attractions are determined. For purposes of illustration and without limitation, these locations may be determined by analyzing the location information to determine the frequency with which the user of the mobile device visits particular businesses or particular types of businesses; the amount of time spent at the business location; by reference to positive or negative or numerical ratings the user associates with particular businesses or business types (such ratings can be entered via a menu on a mobile device or through an application or webpage associated with the user's profile). The ratings are positive or negative such as thumbs up and thumb down but may also be numerical such as a rating one through five.” Busch ’815 at [0364].<br><br>“For purposes of illustration and without limitation, information is sent to the mobile device containing points that correspond to locations where if the user is in proximity to the point, the mobile device takes an action, or manifests an intent to take an action. The action is displaying targeted content but it may also be responding with additional information, changing the behavior of the mobile device (e.g., location reporting frequency, content display settings, etc.), or any other action desired or combination of actions desired.” Busch ’815 at [0372].<br><br>“As such, in response to the request and a location of the user 74-1, the customized content delivery function 78 selects one or more advertisements for the user 74-1 in the manner discussed above.” Svendsen ’073 at 14:39–42.<br><br>“The selected advertisements may then be delivered to the user 74-1 in association with results of the Internet search request.” Svendsen ’073 at 14:42–44.<br><br>*See also* Svendsen ’073 at 11:17–32.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

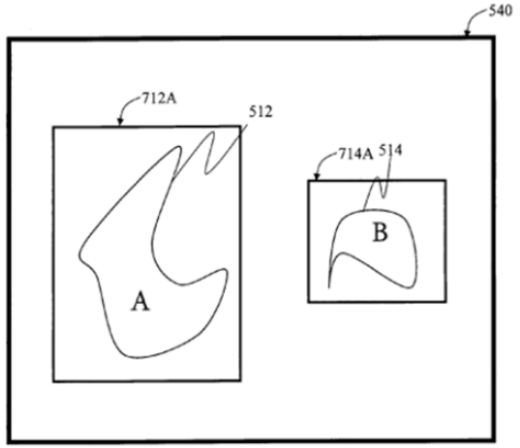
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| 4[pre]. The method of claim 1, further comprising: | The following prior art expressly or inherently discloses and renders obvious “[t]he method of claim 1.” *See* claim 1 limitations above.<br><br>*See* above at row 1[pre].<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [4a] determining whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location; | The following prior art expressly or inherently discloses and renders obvious “determining whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location.” For example:<br><br>“lternatively, the notification distributor component 114 can provide notifications to mobile devices upon receiving a request from the mobile devices or account. For instance, if a mobile device has been turned off or has left the coverage area and is unable to connect to the system 100, the mobile device can request the most recent notifications upon resuming contact with the system 100. In addition to automatically generated notifications, an account can request and receive location information for any mobile device enrolled in the system 100, if the account has the correct permissions. The permissions required to access and utilize location information for mobile devices are discussed in detail below. The notification distributor component 114 can also ensure that relevant data is included in the notification and that notifications are formatted for individual mobile devices. For instance, a notification can be sent as an SMS message to a cell phone or as an email message to a laptop with Wi-Fi access.” Hughes ’666 at [0038].<br><br>“Alert conditions can be based upon the juxtaposition or proximity of a first entity with a second entity, where an entity can be an individual mobile device, a geographic region, a geographic location or an event. Typically, it is the combination of two or more entities or features that triggers distribution of a notification to a mobile device. For example, an alert can be defined so that a notification is distributed when a first entity is in close, physical proximity to a second entity.” Hughes ’666 at [0059]. |

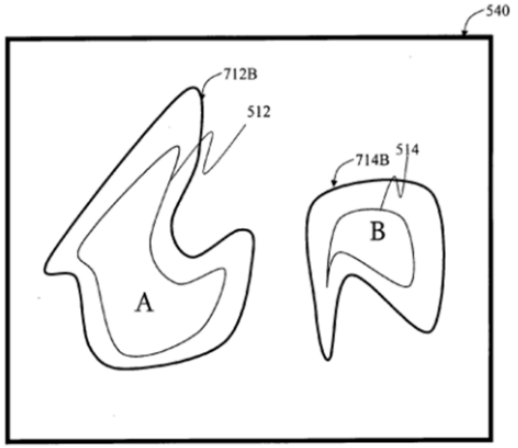
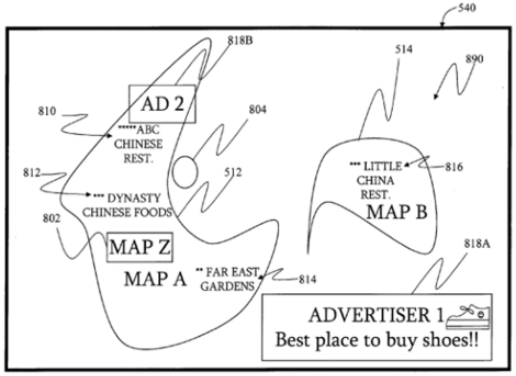
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| | “The system may also be able to distribute the advertisements to users who have indicated a predisposition to the products advertised, benefiting both vendors and consumers.” Hughes ’666 at [0091].<br><br>“Turning once again to FIG. 11, the alert system 1100 can also include a location prediction component 1104. The location prediction component 1104 can generate an estimate or prediction of user's location at a future point in time based upon the current and past location information retrieved from the device location data store 110. Location prediction is particularly useful when the user is traveling. Information regarding what is ahead of the user on the road (e.g., traffic accidents, coffee shops and fast food) can be more useful than information regarding the user's current location. For example, if a user is on a highway, information regarding historical monuments or vendors located a few miles further along the highway are much more likely to be helpful to a user than information associated with an exit that the user is in the process of passing. Location prediction can also be used in conjunction with advertisement alerts to identify users approaching the vendor's location as opposed to users leaving the area of the vendor's location.” Hughes ’666 at [0093].<br><br>“The alert evaluator component 112 can determine if alerts are actuated for the user or other users with alert permission based upon the predicted location of the user, instead of, or in addition to the current location.” Hughes ’666 at [0094].<br><br>“The R/W device 16 performs short-range communication with the cellular phone 12-1. Standards of protocol used in short-range communication include, for example, NFC (Near Field Communication), ISO/IEC 14443, Bluetooth, UWB (Ultra Wide Band), and IEEE802.11b. A method of the short-range communication in the present embodiment may be a contact method, or a non-contact method. The R/W device 16 is installed at a shop and other places.” Kinoshita ’866 at [0039].<br><br>“The service device 14 selects advertisement videos and digital content data to be transferred to the cellular phone 12 based upon the attribute data and the list of advertisement videos and digital content data received in the step ST24. Specifically, the processing circuit 69 of the service device 14, based upon the attribute data received from the cellular phone 12-1, makes a list satisfying preferences of the user carrying the cellular phone 12-1 by searching the list of the advertisement videos and digital content data that are stored in the memory 68. Then, from the list made in this step, the processing circuit 69 selects advertisement videos and digital content data that are not found in the list received from the cellular phone 12-1.” Kinoshita ’866 at [0106].<br><br>“A community search can be broadened or narrowed depending on user requirements. The broadest spectrum is the entire community (city), a middle spectrum is a user's own community (frequent contacts), and the narrowest is associated with the specific user or that user's saved bookmarks. The user is able to go back and |

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| | forth from narrowest to broadest search and additionally can search any spectrum between the narrowest and broadest. It is also possible for the user to request a search for, or based upon such user's contact(s), those contacts' contact(s), or those contacts' contacts' contact(s), etc. in an ever expanding and/or distant range of contacts away from the user.” Smith ’558 at [0137].<br><br>“The present invention is to store a content list that stores at least one pair of content related to a position and the position in relation to the content, determine a content acquisition region to acquire the content based on a current position, select content in relation to a position associated with the determined content acquisition region from the content list, acquire part of the selected content in advance, determine whether remaining part of the selected content will be referred to based on a position subsequent to the part of the selected content being acquired, thereby determining whether or not to acquire the remaining part of the selected content, and when determining to acquire the remaining part of the selected content, acquire the remaining part of the selected content.” Sato ’965 at Abstract.<br><br>  <br>FIG. 8<br>Sato ’965 at Fig. 8. |

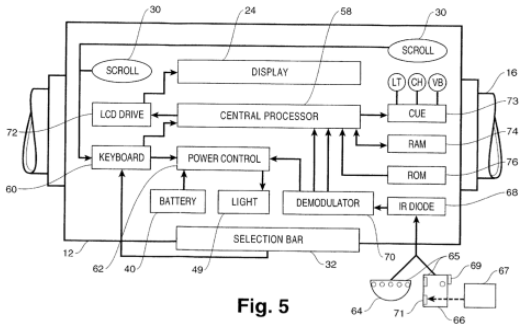
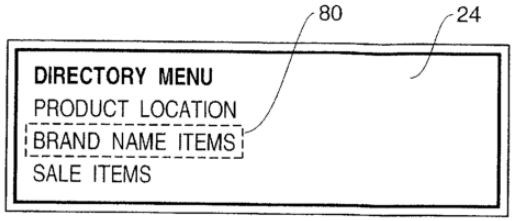
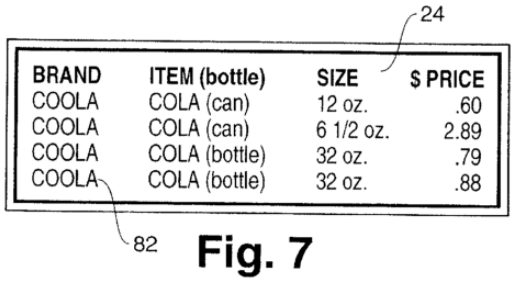
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| |  <br>FIG.19<br>Sato ’965 at Fig. 19.<br>“The radius of content data acquisition region 501 may be increased corresponding to the moving speed of mobile unit 143. In this case, content data acquisition region 501 is determined based on the moving speed of mobile unit 143 and the position of mobile unit 143.” Sato ’965 at [0126].<br>“Content data acquisition region 501 as shown in FIG. 10 is an oval region extending in the direction in which mobile unit 143 travels. In other words, content data acquisition region 501 as shown in FIG. 10 is determined based on the traveling direction of mobile unit 143 and the moving speed of mobile unit 143.” Sato ’965 at [0129].<br>“Sizes of content data acquisition regions 501 as shown in FIGS. 7 to 10 may have a constant value always, or may be varied corresponding to the speed of mobile unit 143.” Sato ’965 at [0131].<br>“Further, the size of content data acquisition region 501 may be determined to keep the number of items of content data (candidates for content data to acquire) with content positions included in content data acquisition region 501 less than a predetermined limit value.” Sato ’965 at [0132].<br>*See also* Sato ’965 at Fig. 6 and Fig. 24. |

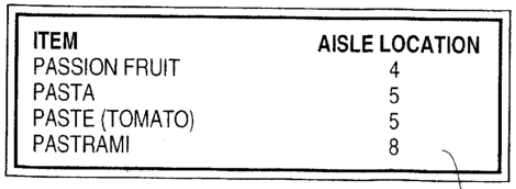
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| |  <br>FIG. 4<br>Ahn ’281 at Fig. 4.<br>  <br>FIG. 6<br>Ahn ’281 at Fig. 6. |

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| |  <br>FIG. 7A<br>Ahn ’281 at Fig. 7A. |

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| |  <br>FIG. 7B<br>Ahn ’281 at Fig, 7B.<br>  <br>FIG. 8A<br>Ahn ’281 at Fig. 8A. |

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| | “Systems and methods are described below for managing geographically referenced data (GRD). The systems and methods, collectively referred to herein as geographic information knowledge (GIK) systems, are configured to receive a search request that includes a defined search area. An extended map is provided based on the search request. The extended map includes geographic areas within the defined search area and outside the defined search area. The systems and methods provide the GRD, which includes advertisements, contact information, review information for one or more entities, and the like. Map reference information of the GRD is provided on the extended map.” Ahn ’281 at [0024].<br><br>“The extended map is generally bigger or wider than the area requested by the user. In one embodiment, the size of the extended search area may depend on one or more attributes, such as: (a) whether the requested area is a commuting area, for example, surveys may indicate that most people in Los Angeles would not mind driving another ten minutes to seek a better restaurant, (b) the number of advertisers that are outside of the user search area, (c) the usual miles people would drive within the area, (d) the scarcity of establishments requested by the user within the search area, (e) the data communication speed between the client device 110 and the map manager 102, and (f) the type of user client device, e.g., wireless. Map updates may also pertain to additional extended map area, for example, if the user is scrolling or searching already within the edge of the requested search area, it is feasible that the user may next request an area particularly outside of the extended area already available. Thus, incremental updates of extended areas may also be provided.” Ahn ’281 at [0052].<br><br>“In addition to the extended map sent back to the user, map-advertising information is also sent back in accordance with an embodiment of the invention. The map-advertising information is a set of information that generally is used by the local map handler 302 to decide which set of advertisements is presented to the user.” Ahn ’281 at [0055].<br><br>*See also* Ahn ’281 at Abstract, [0062], [0071], [0077], [0078], [0185], [0196], and [0205]. |

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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>  <br>Fig. 6<br>Begum ’880 at Fig. 6.<br>  <br>Fig. 7<br>Begum ’880 at Fig. 7. |

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| |  <br>Fig. 8<br>Begum ’880 at Fig. 8.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“Since the point of purchase promotion is most effective when the customer is at ground zero, that is, proximate the shelf location of the promoted item, the graphic must be transmitted, received and formatted for display in the brief time that the shopper is strolling past the promoted item.” Begum ’880 at 4:33–38.<br>“The infrared or radio frequency receiver in the handle, used for an alarm when the cart or handle leaves a prescribed area, also be used to receive an advertisement signal by appropriate programming as described.” Begum ’880 at 4:59–63.<br>“Certain features are also beneficial to the user who has an opportunity to voluntarily scroll through the promotional items to determine if there is anything of particular interest. ” Begum ’880 at 5:5–7.<br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br>“Each transceiver unit 65 can have a separate identification such that data transmitted from the control unit 67 is transmitted store wide but is processed and stored only by the transceiver unit to which the data is intended.” Begum ’880 at 9:8–11. |

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| | “The data signal is a digital signal that includes both the product control signals and the screen graphic signal. The product control signals include data about the promotion that is not in the screen graphic and that does not appear on the display screen 24 of the display unit 12. This data may include the universal product identification number, the date or iteration number of the promotional graphic, and, the identification number of the transceiver unit, which is useful in tracking the path of a shopper through the market area. The screen graphic signal contains the digitized data that is received by the display unit 12 and formatted for display on the display screen. For example, a compressed screen graphic signal must be decompressed by the central processor before it is relayed to the LCD controller and driver 72. ” Begum ’880 at 9:16–29.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“To assist a user in locating items, the generic names are listed with an aisle directory listing for each category as shown in FIG. 8. In one embodiment of operation, an updatable series of advertisements, particularly select sales items for which the product producers or distributors have paid advertisement fees to the system operator, is retained in memory. Periodically, during a state of activation of the display device when the shopper is not using the display unit, the display screen is activated for a set time, for example ten seconds, and a select product advertisement is displayed as shown in FIG. 9. Preferably, the advertisement contains a sale price, as shoppers prefer not to refer to simple product name advertisements. To alert the shopper that a promotional message is being displayed, a cue signal, such as a pleasant chime, light or handle vibration is generated at the beginning of the message. The cue signal is also generated when the promotional message is activated by the transceiver units 65 located proximate the promoted product.” Begum ’880 at 10:52–11:3.<br><br>*See also* Begum ’880 at 5:65–6:4, 6:5–13, 8:36–47, 9:56–65, 9:66–10:15, 10:16–31, and 10:41–51.<br><br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008]. |

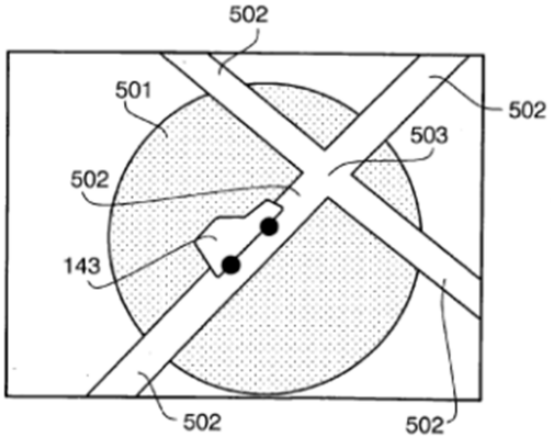
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| | “Alternatively, one or more destinations may be determined and the current geographic location information along with a proposed destination is routed to a routing program to obtain a path of travel. Next, a content result set is obtained that contains one or more elements selected based upon at least the likely course or area of travel, specific destination, or specific destinations so that information pertaining to businesses along the course of travel are available to the user. Any number of these results are displayed on the mobile device at appropriate times (e.g., when the user is approaching a business location along a path, when a user is walking around a shopping area, when the user is driving along a highway, when the user performs a search for content or a business, when a user requests route guidance, not when the user is in a movie theater, not when the user is eating dinner, not when the user is at work, etc.).” Busch ’815 at [0280].<br><br>“ If the user is moving slowly, many elements of targeted content associated with the nearby area are sent to the mobile device or retrieved from the memory of the mobile device. If the user is moving faster (For purposes of illustration and without limitation, if they are in a car, on a motorcycle, on a high speed train, etc.) then targeted content associated with businesses in a wider area are sent to the user or retrieved from the memory of the mobile device. This allows the mobile device to display the most relevant content to the user of the mobile device while allowing the content to be displayed a sufficient amount of time so that the user is able to see and react to the content before the content is replaced with more relevant information based upon updated location information available to the mobile device.” Busch ’815 at [0363].<br><br>“A next geographic shape for the advertiser is then obtained from the account of the advertiser (step 206). For the first iteration, the next geographic shape is the first geographic shape for the advertiser. Next, a determination is made as to whether the requestor is located within the geographic shape or, more specifically, the geographic area selected by the geographic shape (step 208). If not, the process proceeds to step 218. Otherwise, a next keyword assigned to the geographic shape is obtained from the account of the advertiser (step 210). For the first iteration, the next keyword is the first keyword. Then, a determination is made as to whether the keyword is new or has a higher z-order than another instance of the keyword already included in the aggregate list of keywords for the advertiser (step 212).” Svendsen ’073 at 6:30–43.<br><br>“At this point whether proceeding from step 212 or step 214, a determination is made as to whether there are more keywords assigned to the geographic shape (step 216). If so, steps 210 through 216 are repeated until all of the keywords assigned to the geographic shape have been processed. Once all of the keywords for the geographic shape have been processed, a determination is made as to whether there are more geographic shapes for the advertiser (step 218). If so, steps 206 through 218 are repeated until all of the geographic shapes for the advertiser have been processed. At that point, a bid for the advertiser is calculated based on the |

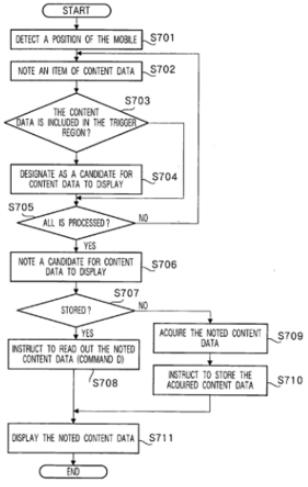
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| | aggregate list of keywords for the advertiser generated in steps 206 through 218 (step 220).” Svendsen ’073 at 7:12–24.<br><br>“First, a next geographic shape for the content provider is obtained (step 300). For the first iteration, the next geographic shape is the first geographic shape for the content provider. A determination is then made as to whether the requestor is located within the geographic shape or, more specifically, the geographic area selected by the geographic shape (step 302). If not, the process proceeds to step 312. ” Svendsen ’073 at 9:3–9.<br><br>“FIG. 7B illustrates a circle 66 selecting a corresponding geographic area. In addition, in this embodiment, a damping factor is associated with the circle 66. Alternatively, a separate damping factor may be assigned to each keyword associated with the circle 66. The damping factor operates to reduce the weights assigned to the keywords associated with the circle 66 as a function of a distance of a requestor located outside of the circle 66 from the circle 66. Thus, if a request is received from a requestor located inside the circle 66, the weights assigned to the keywords are unchanged. However, if a request is received from a requestor located outside of the circle 66, then the weights assigned to the keywords are reduced as a function of the distance of the requestor from the circle 66. The damping factor effectively enlarges the geographic area selected by the circle 66 to include an additional geographic area defined by a distance (d) from the circle 66. The distance (d) is indirectly defined by the damping factor.” Svendsen ’073 at 10:51–67.<br><br>“FIG. 9 illustrates a process for recommending changes or alterations to a geographic shape defined by a content provider. This process may be utilized in combination with the process of FIG. 1, as a standalone process, or as part of a process other than that shown in FIG. 1. Note that this example focuses on an advertiser. However, the process is not limited thereto and may also be used or other types of content providers. First, user input is received from an advertiser defining a geographic shape selecting a geographic area desired by the advertiser (step 500). In addition, user input is received from the advertiser defining one or more criteria identifying target users for an advertisement campaign of the advertiser (step 502). The one or more criteria may be, for example, demographic criteria such as, but not limited to, an income level, age or age range, gender, or the like. In addition or alternatively, the one or more criteria may include one or more media preferences of target users (e.g., preferred music genres, preferred music artists, etc.), one or more items recently purchased, one or more websites recently visited, or the like. Note that the exemplary criteria given above for identifying target users is not intended to limit the scope of the present invention. Any other criteria for identifying target users may be used.” Svendsen ’073 at 11:64–12:19. |

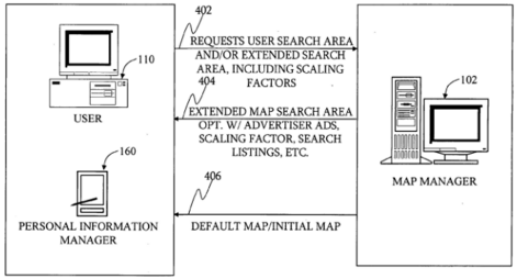
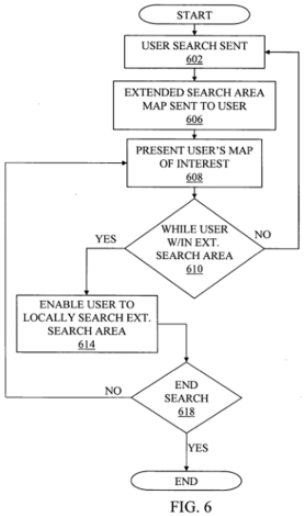
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| | “Then, a revised geographic shape selecting a revised geographic area associated with users better satisfying the one or more criteria identifying target users is generated and recommended to the content provider (step 504). The content provider can then choose to reject or accept the revised geographic shape. ” Svendsen ’073 at 12:20–25.<br><br>“For example, if 10% of the target users in the geographic area selected by the revised geographic shape frequently visit another geographic area, another geographic shape selecting that other geographic area may be recommended to the content provider as illustrated in FIG. 10D. The content provider may then choose to accept or reject the recommendation.” Svendsen ’073 at 13:17–23.<br><br>“As a final example, a content provider may define a geographic shape such that the boundaries of the geographic shape vary based on time or in response to triggering events. More specifically, the boundaries of the geographic shape may vary based on time of day, day of the week, month of the year, or the like.” Svendsen ’073 at 16:27–32.<br><br>*See also* Svendsen ’073 at Fig. 9.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [4b] in response to a negative determination, increasing the predetermined radial distance. | The following prior art expressly or inherently discloses and renders obvious “in response to a negative determination, increasing the predetermined radial distance.” For example:<br><br>“lternatively, the notification distributor component 114 can provide notifications to mobile devices upon receiving a request from the mobile devices or account. For instance, if a mobile device has been turned off or has left the coverage area and is unable to connect to the system 100, the mobile device can request the most recent notifications upon resuming contact with the system 100. In addition to automatically generated notifications, an account can request and receive location information for any mobile device enrolled in the system 100, if the account has the correct permissions. The permissions required to access and utilize location information for mobile devices are discussed in detail below. The notification distributor component 114 can |

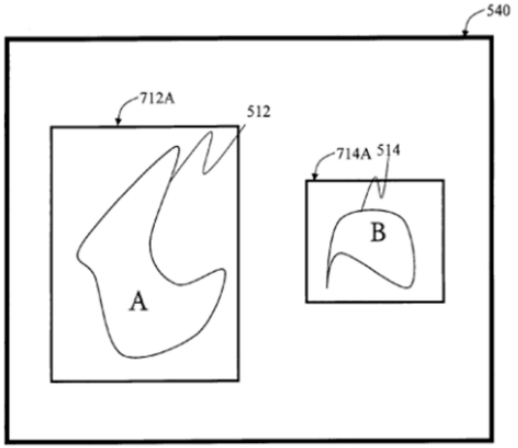
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| | also ensure that relevant data is included in the notification and that notifications are formatted for individual mobile devices. For instance, a notification can be sent as an SMS message to a cell phone or as an email message to a laptop with Wi-Fi access.” Hughes ’666 at [0038].<br><br>“Alert conditions can be based upon the juxtaposition or proximity of a first entity with a second entity, where an entity can be an individual mobile device, a geographic region, a geographic location or an event. Typically, it is the combination of two or more entities or features that triggers distribution of a notification to a mobile device. For example, an alert can be defined so that a notification is distributed when a first entity is in close, physical proximity to a second entity.” Hughes ’666 at [0059].<br><br>“The system may also be able to distribute the advertisements to users who have indicated a predisposition to the products advertised, benefiting both vendors and consumers.” Hughes ’666 at [0091].<br><br>“Turning once again to FIG. 11, the alert system 1100 can also include a location prediction component 1104. The location prediction component 1104 can generate an estimate or prediction of user's location at a future point in time based upon the current and past location information retrieved from the device location data store 110. Location prediction is particularly useful when the user is traveling. Information regarding what is ahead of the user on the road (e.g., traffic accidents, coffee shops and fast food) can be more useful than information regarding the user's current location. For example, if a user is on a highway, information regarding historical monuments or vendors located a few miles further along the highway are much more likely to be helpful to a user than information associated with an exit that the user is in the process of passing. Location prediction can also be used in conjunction with advertisement alerts to identify users approaching the vendor's location as opposed to users leaving the area of the vendor's location.” Hughes ’666 at [0093].<br><br>“The alert evaluator component 112 can determine if alerts are actuated for the user or other users with alert permission based upon the predicted location of the user, instead of, or in addition to the current location.” Hughes ’666 at [0094].<br><br>“The service device 14 selects advertisement videos and digital content data to be transferred to the cellular phone 12 based upon the attribute data and the list of advertisement videos and digital content data received in the step ST24. Specifically, the processing circuit 69 of the service device 14, based upon the attribute data received from the cellular phone 12-1, makes a list satisfying preferences of the user carrying the cellular phone 12-1 by searching the list of the advertisement videos and digital content data that are stored in the memory 68. Then, from the list made in this step, the processing circuit 69 selects advertisement videos and |

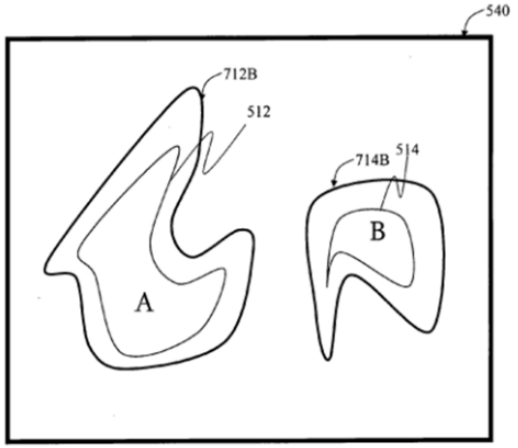
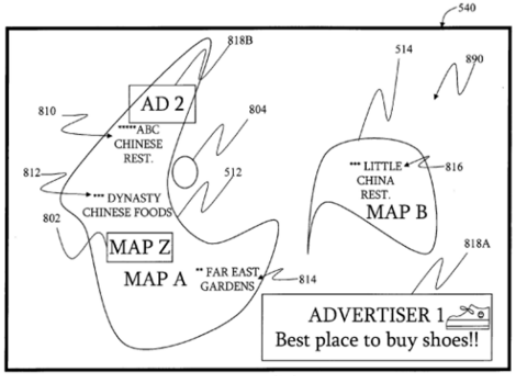
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| | digital content data that are not found in the list received from the cellular phone 12-1.” Kinoshita ’866 at [0106].<br><br>“A community search can be broadened or narrowed depending on user requirements. The broadest spectrum is the entire community (city), a middle spectrum is a user's own community (frequent contacts), and the narrowest is associated with the specific user or that user's saved bookmarks. The user is able to go back and forth from narrowest to broadest search and additionally can search any spectrum between the narrowest and broadest. It is also possible for the user to request a search for, or based upon such user's contact(s), those contacts' contact(s), or those contacts' contacts' contact(s), etc. in an ever expanding and/or distant range of contacts away from the user.” Smith ’558 at [0137].<br><br>“The present invention is to store a content list that stores at least one pair of content related to a position and the position in relation to the content, determine a content acquisition region to acquire the content based on a current position, select content in relation to a position associated with the determined content acquisition region from the content list, acquire part of the selected content in advance, determine whether remaining part of the selected content will be referred to based on a position subsequent to the part of the selected content being acquired, thereby determining whether or not to acquire the remaining part of the selected content, and when determining to acquire the remaining part of the selected content, acquire the remaining part of the selected content.” Sato ’965 at Abstract. |

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| |  <br>FIG. 8<br>Sato ’965 at Fig. 8. |

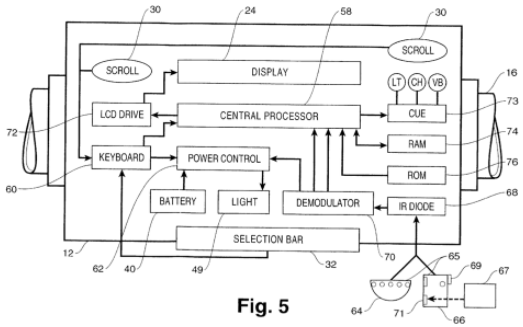
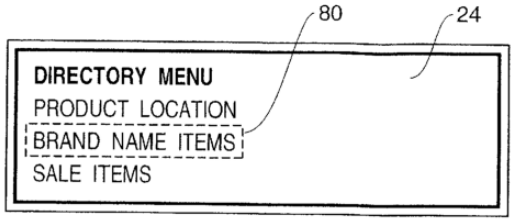
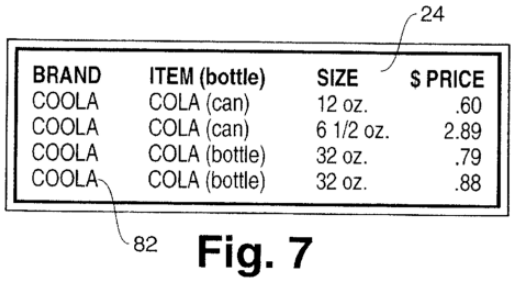
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| |  <br>FIG.19<br>Sato ’965 at Fig. 19.<br>“The radius of content data acquisition region 501 may be increased corresponding to the moving speed of mobile unit 143. In this case, content data acquisition region 501 is determined based on the moving speed of mobile unit 143 and the position of mobile unit 143.” Sato ’965 at [0126].<br>“Content data acquisition region 501 as shown in FIG. 10 is an oval region extending in the direction in which mobile unit 143 travels. In other words, content data acquisition region 501 as shown in FIG. 10 is determined based on the traveling direction of mobile unit 143 and the moving speed of mobile unit 143.” Sato ’965 at [0129].<br>“Sizes of content data acquisition regions 501 as shown in FIGS. 7 to 10 may have a constant value always, or may be varied corresponding to the speed of mobile unit 143.” Sato ’965 at [0131].<br>“Further, the size of content data acquisition region 501 may be determined to keep the number of items of content data (candidates for content data to acquire) with content positions included in content data acquisition region 501 less than a predetermined limit value.” Sato ’965 at [0132].<br>*See also* Sato ’965 at Fig. 6 and Fig. 24. |

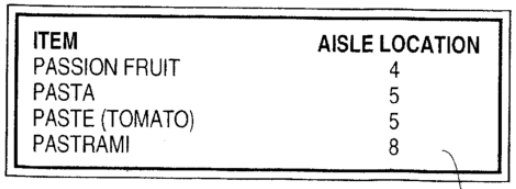
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| |  <br>FIG. 4<br>Ahn ’281 at Fig. 4.<br>  <br>FIG. 6<br>Ahn ’281 at Fig. 6. |

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| |  <br>FIG. 7A<br>Ahn ’281 at Fig. 7A. |

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| |  <br>FIG. 7B<br>Ahn ’281 at Fig, 7B.<br>  <br>FIG. 8A<br>Ahn ’281 at Fig. 8A. |

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| | “Systems and methods are described below for managing geographically referenced data (GRD). The systems and methods, collectively referred to herein as geographic information knowledge (GIK) systems, are configured to receive a search request that includes a defined search area. An extended map is provided based on the search request. The extended map includes geographic areas within the defined search area and outside the defined search area. The systems and methods provide the GRD, which includes advertisements, contact information, review information for one or more entities, and the like. Map reference information of the GRD is provided on the extended map.” Ahn ’281 at [0024].<br><br>“The extended map is generally bigger or wider than the area requested by the user. In one embodiment, the size of the extended search area may depend on one or more attributes, such as: (a) whether the requested area is a commuting area, for example, surveys may indicate that most people in Los Angeles would not mind driving another ten minutes to seek a better restaurant, (b) the number of advertisers that are outside of the user search area, (c) the usual miles people would drive within the area, (d) the scarcity of establishments requested by the user within the search area, (e) the data communication speed between the client device 110 and the map manager 102, and (f) the type of user client device, e.g., wireless. Map updates may also pertain to additional extended map area, for example, if the user is scrolling or searching already within the edge of the requested search area, it is feasible that the user may next request an area particularly outside of the extended area already available. Thus, incremental updates of extended areas may also be provided.” Ahn ’281 at [0052].<br><br>“In addition to the extended map sent back to the user, map-advertising information is also sent back in accordance with an embodiment of the invention. The map-advertising information is a set of information that generally is used by the local map handler 302 to decide which set of advertisements is presented to the user.” Ahn ’281 at [0055].<br><br>*See also* Ahn ’281 at Abstract, [0062], [0071], [0185], [0196], and [0205]. |

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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>  <br>Fig. 6<br>Begum ’880 at Fig. 6.<br>  <br>Fig. 7<br>Begum ’880 at Fig. 7. |

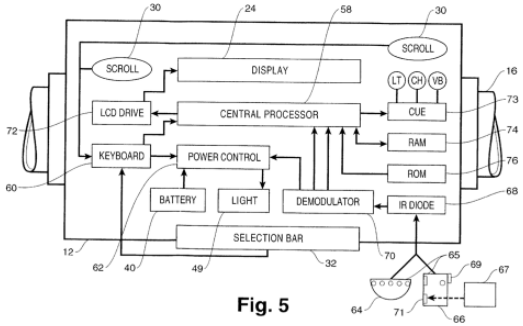
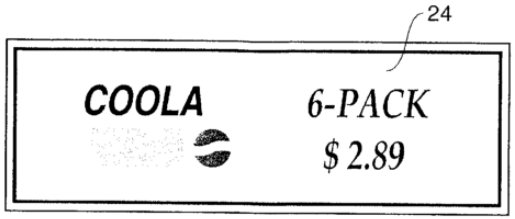
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| |  <br>Fig. 8<br>Begum ’880 at Fig. 8.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“Certain features are also beneficial to the user who has an opportunity to voluntarily scroll through the promotional items to determine if there is anything of particular interest. ” Begum ’880 at 5:5–7.<br>“Each transceiver unit 65 can have a separate identification such that data transmitted from the control unit 67 is transmitted store wide but is processed and stored only by the transceiver unit to which the data is intended.” Begum ’880 at 9:8–11.<br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br>“The random access memory (RAM) 74 and read only memory (ROM) 76 store the systems operations data and reprogrammable user data for displaying store directory and product information in the display screen 24.” Begum ’880 at 10:32–35.<br>“To assist a user in locating items, the generic names are listed with an aisle directory listing for each category as shown in FIG. 8. In one embodiment of operation, an updatable series of advertisements, particularly select sales items for which the product producers or distributors have paid advertisement fees to the system operator, is retained in memory. Periodically, during a state of activation of the display device when the shopper is not using the display unit, the display screen is activated for a set time, for example ten |

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| | seconds, and a select product advertisement is displayed as shown in FIG. 9. Preferably, the advertisement contains a sale price, as shoppers prefer not to refer to simple product name advertisements. To alert the shopper that a promotional message is being displayed, a cue signal, such as a pleasant chime, light or handle vibration is generated at the beginning of the message. The cue signal is also generated when the promotional message is activated by the transceiver units 65 located proximate the promoted product.” Begum ’880 at 10:52–11:3.<br><br>*See also* Begum ’880 at 5:65–6:4, 6:5–13, 8:36–47, 9:16–29, 9:56–65, and 10:41–51.<br><br>“Alternatively, one or more destinations may be determined and the current geographic location information along with a proposed destination is routed to a routing program to obtain a path of travel. Next, a content result set is obtained that contains one or more elements selected based upon at least the likely course or area of travel, specific destination, or specific destinations so that information pertaining to businesses along the course of travel are available to the user. Any number of these results are displayed on the mobile device at appropriate times (e.g., when the user is approaching a business location along a path, when a user is walking around a shopping area, when the user is driving along a highway, when the user performs a search for content or a business, when a user requests route guidance, not when the user is in a movie theater, not when the user is eating dinner, not when the user is at work, etc.).” Busch ’815 at [0280].<br><br>“ If the user is moving slowly, many elements of targeted content associated with the nearby area are sent to the mobile device or retrieved from the memory of the mobile device. If the user is moving faster (For purposes of illustration and without limitation, if they are in a car, on a motorcycle, on a high speed train, etc.) then targeted content associated with businesses in a wider area are sent to the user or retrieved from the memory of the mobile device. This allows the mobile device to display the most relevant content to the user of the mobile device while allowing the content to be displayed a sufficient amount of time so that the user is able to see and react to the content before the content is replaced with more relevant information based upon updated location information available to the mobile device.” Busch ’815 at [0363].<br><br>“The system may expand the geographic area of targeted content associated with the user based on the numbers the user dials. For purposes of illustration and without limitation, if the user dials a phone number of a business off the path of the user's typical travels, results for other businesses in that area are weighed more so than it would have prior to the user calling the business in the new area.” Busch ’815 at [0408].<br><br>“A next geographic shape for the advertiser is then obtained from the account of the advertiser (step 206). For the first iteration, the next geographic shape is the first geographic shape for the advertiser. Next, a determination is made as to whether the requestor is located within the geographic shape or, more |

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| | specifically, the geographic area selected by the geographic shape (step 208). If not, the process proceeds to step 218. Otherwise, a next keyword assigned to the geographic shape is obtained from the account of the advertiser (step 210). For the first iteration, the next keyword is the first keyword. Then, a determination is made as to whether the keyword is new or has a higher z-order than another instance of the keyword already included in the aggregate list of keywords for the advertiser (step 212).” Svendsen ’073 at 6:30–43.<br><br>“At this point whether proceeding from step 212 or step 214, a determination is made as to whether there are more keywords assigned to the geographic shape (step 216). If so, steps 210 through 216 are repeated until all of the keywords assigned to the geographic shape have been processed. Once all of the keywords for the geographic shape have been processed, a determination is made as to whether there are more geographic shapes for the advertiser (step 218). If so, steps 206 through 218 are repeated until all of the geographic shapes for the advertiser have been processed. At that point, a bid for the advertiser is calculated based on the aggregate list of keywords for the advertiser generated in steps 206 through 218 (step 220).” Svendsen ’073 at 7:12–24.<br><br>“First, a next geographic shape for the content provider is obtained (step 300). For the first iteration, the next geographic shape is the first geographic shape for the content provider. A determination is then made as to whether the requestor is located within the geographic shape or, more specifically, the geographic area selected by the geographic shape (step 302). If not, the process proceeds to step 312. ” Svendsen ’073 at 9:3–9.<br><br>“FIG. 7B illustrates a circle 66 selecting a corresponding geographic area. In addition, in this embodiment, a damping factor is associated with the circle 66. Alternatively, a separate damping factor may be assigned to each keyword associated with the circle 66. The damping factor operates to reduce the weights assigned to the keywords associated with the circle 66 as a function of a distance of a requestor located outside of the circle 66 from the circle 66. Thus, if a request is received from a requestor located inside the circle 66, the weights assigned to the keywords are unchanged. However, if a request is received from a requestor located outside of the circle 66, then the weights assigned to the keywords are reduced as a function of the distance of the requestor from the circle 66. The damping factor effectively enlarges the geographic area selected by the circle 66 to include an additional geographic area defined by a distance (d) from the circle 66. The distance (d) is indirectly defined by the damping factor.” Svendsen ’073 at 10:51–67.<br><br>“FIG. 9 illustrates a process for recommending changes or alterations to a geographic shape defined by a content provider. This process may be utilized in combination with the process of FIG. 1, as a standalone process, or as part of a process other than that shown in FIG. 1. Note that this example focuses on an |

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| | advertiser. However, the process is not limited thereto and may also be used or other types of content providers. First, user input is received from an advertiser defining a geographic shape selecting a geographic area desired by the advertiser (step 500). In addition, user input is received from the advertiser defining one or more criteria identifying target users for an advertisement campaign of the advertiser (step 502). The one or more criteria may be, for example, demographic criteria such as, but not limited to, an income level, age or age range, gender, or the like. In addition or alternatively, the one or more criteria may include one or more media preferences of target users (e.g., preferred music genres, preferred music artists, etc.), one or more items recently purchased, one or more websites recently visited, or the like. Note that the exemplary criteria given above for identifying target users is not intended to limit the scope of the present invention. Any other criteria for identifying target users may be used.” Svendsen ’073 at 11:64–12:19.<br><br>“Then, a revised geographic shape selecting a revised geographic area associated with users better satisfying the one or more criteria identifying target users is generated and recommended to the content provider (step 504). The content provider can then choose to reject or accept the revised geographic shape. ” Svendsen ’073 at 12:20–25.<br><br>“For example, if 10% of the target users in the geographic area selected by the revised geographic shape frequently visit another geographic area, another geographic shape selecting that other geographic area may be recommended to the content provider as illustrated in FIG. 10D. The content provider may then choose to accept or reject the recommendation.” Svendsen ’073 at 13:17–23.<br><br>“As a final example, a content provider may define a geographic shape such that the boundaries of the geographic shape vary based on time or in response to triggering events. More specifically, the boundaries of the geographic shape may vary based on time of day, day of the week, month of the year, or the like.” Svendsen ’073 at 16:27–32.<br><br>*See also* Svendsen ’073 at Fig. 9.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

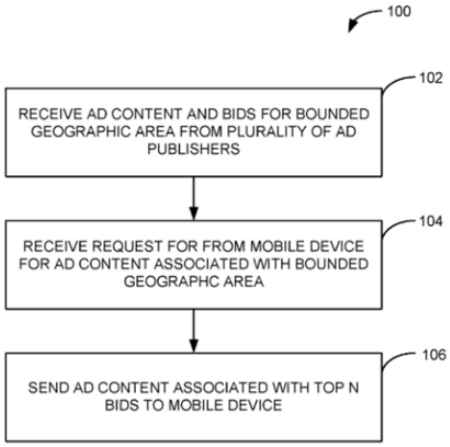
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| 5[pre]. The method of claim 1, further comprising: | The following prior art expressly or inherently discloses and renders obvious “[t]he method of claim 1.” *See* claim 1 limitations above.<br><br>*See* above at row 1[pre]. |
| [5a] reserving a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to registered application programs and having a target location contained within the specific one of the plurality of geographic areas. | The following prior art expressly or inherently discloses and renders obvious “reserving a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to registered application programs and having a target location contained within the specific one of the plurality of geographic areas.” For example:<br><br>“In one case, the system can automatically send advertisements to users based upon the conditions of the advertisement alert and without allowing users to opt out of receiving the advertisement. In this case, the alert system may be provided to users without charge. The system provider can receive fees from vendors in return for distributing advertisements. The total number and/or type of advertisement notifications a user receives can be limited to avoid excessive distractions.” Hughes ’666 at [0084].<br><br>“The alert system operator can sell exclusive advertisement rights for a particular advertisement category to vendors for defined regions or specified periods of time. For example, a restaurant owner can purchase the exclusive rights for food advertisements within two blocks of the restaurant during the lunch hours. Alternatively, the owner of a first restaurant can purchase the exclusive advertisement alert rights for a region proximate to a competing restaurant. The system operator can auction off advertisement rights, requiring vendors to bid for particularly popular advertising categories, regions or times.” Hughes ’666 at [0089].<br><br>“The processing circuit 59 of the cellular phone 12-1 displays the default advertisement video on the display 54 until the processing circuit 59 completes the reception of advertisement videos from the service device 14.” Kinoshita ’866 at [0111].<br><br>“During this registration process, the processing circuit 59 of the cellular phone 12-1 reads out the advertisement video from the memory 58 and plays it on the display 54.” Kinoshita ’866 at [0119].<br><br>“Further, in accordance with the communication system 1 of the present invention, while the cellular phone 12-1 is receiving advertisement videos from the service device 14, the cellular phone 12-1 displays a default advertisement video received from the Web server 24 previously. Therefore a period of no displaying advertisement video can be shrunk. Further, when the cellular phone 12-1 starts to communicate with the service device 14, the above default advertisement video is always displayed. This means that the default advertisement video is highly effective.” Kinoshita ’866 at [0136]. |

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| | *See also* Kinoshita ’866 at [0115].<br><br>“Choosing the advertisement at 3704 can also include receiving from a multitude of advertisers a request to advertise in a particular geographic area. A determination is made as to which advertiser has priority in the particular geographic area.” Smith ’558 at [0245].<br><br>*See also* Sato ’965 at Fig. 3, Fig. 4, Fig. 5, and Fig. 26.<br><br>“In one embodiment, advertisers also interface with the map manager to define and subscribe, e.g., bid or purchase, advertising schemes. ” Ahn ’281 at [0097].<br><br>“The method of an embodiment includes providing the advertisements under one or more of an advertisement purchase and an advertisement auction.” Ahn ’281 at [0184].<br><br>*See also* Ahn ’281 at Fig. 11D and Fig. 13.<br><br>  <br><br>Fig. 5<br><br>Begum ’880 at Fig. 5.<br><br>  <br><br>Fig. 9 |

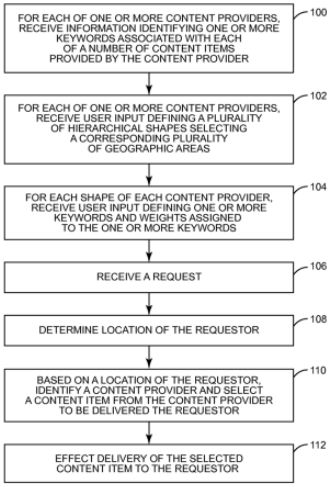
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| | Begum ’880 at Fig. 9.<br><br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br><br>“Since the point of purchase promotion is most effective when the customer is at ground zero, that is, proximate the shelf location of the promoted item, the graphic must be transmitted, received and formatted for display in the brief time that the shopper is strolling past the promoted item.” Begum ’880 at 4:33–38.<br><br>“The display device 12 also includes a radiation window 34 centrally located above display screen 24. The radiation window includes multiple cells 36, which may comprise receivers for receiving microwave, infrared or other air propagated radiation energy for power supplementation or for reception of external data or control signals transmitted by microwave, infrared or radio signals. For example, in the device of FIG. 2, end cells 36a are utilized for receiving trigger signals emitted from signal transmitters positioned at strategic locations at the perimeter of a shopping establishment to trigger an alarm on the cart and at a central monitoring station in the establishment. Also, the cells 36a may be used to receive trigger or message signals from transmitters positioned strategically along each side of grocery aisles. These signals activate display of select promotional advertisements on the display screen as described in the referenced patent. The cells 36a are preferably used to receive digital message signals from the strategically positioned transmitters as described in greater detail with reference to the operation of the preferred embodiments.” Begum ’880 at 6:18–37.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the |

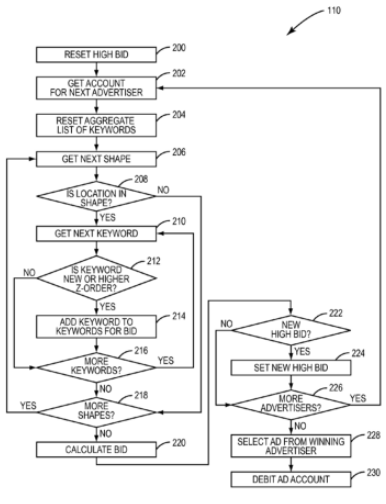
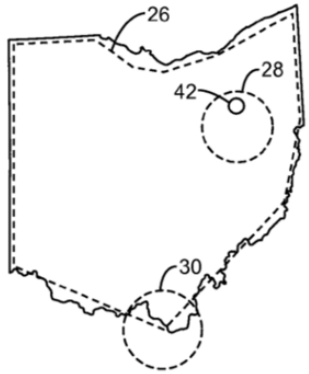
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| | unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“Each transceiver unit 65 can have a separate identification such that data transmitted from the control unit 67 is transmitted store wide but is processed and stored only by the transceiver unit to which the data is intended.” Begum ’880 at 9:8–11.<br><br>“In the preferred embodiment, the transceiver unit 65 upon detection of a proximately located shopping cart transmits a trigger signal to wake-up the display unit on the shopping cart if not already in an activated state, then sends the data signal.” Begum ’880 at 9:12–16.<br><br>“The data signal is a digital signal that includes both the product control signals and the screen graphic signal. The product control signals include data about the promotion that is not in the screen graphic and that does not appear on the display screen 24 of the display unit 12. This data may include the universal product identification number, the date or iteration number of the promotional graphic, and, the identification number of the transceiver unit, which is useful in tracking the path of a shopper through the market area. The screen graphic signal contains the digitized data that is received by the display unit 12 and formatted for display on the display screen. For example, a compressed screen graphic signal must be decompressed by the central processor before it is relayed to the LCD controller and driver 72. ” Begum ’880 at 9:16–29.<br><br>“The screen graphic is preferably promotional information that is related to the promotional item located proximate the transceiver unit that is transmitting the screen graphic signal. A typical screen graphic displayed in the display screen 24 is shown in FIG. 9.” Begum ’880 at 9:46–51.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future |

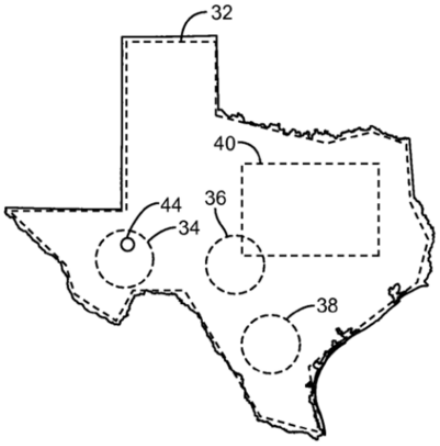
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| | comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>“The product control signals may be utilized in this compare process for rapidly locating the presence or absence of a particular promotional screen graphic in memory and initiating display of either the screen graphic in memory or the screen graphic formatted from the screen graphic signal transmitted by the transceiver unit 65. In this manner, the shopping carts that are in use, are continually updated as they pass a transceiver unit 65, such that even if an outdated ad is stored in memory, the updated ad will be presented once the shopper has arrived at the location of the promoted item. Although this system has the minor drawback of potentially storing an outdated promotional graphic in memory that is accessible by a shopper during review of the product promotion file using the display unit in an interactive mode, the system is self-correcting at the promoted product location.” Begum ’880 at 10:16–31.<br><br>*See also* Begum ’880 at 1:60–2:5, 5:65–6:4, 8:36–47, 9:56–65, and 10:52–11:3.<br><br>“In the preferred embodiment, the communication units are primarily portable and communicate with the coupon interface modules via wireless data transmissions. Furthermore, the discount coupons are preferably activated when the shopper is in the market area proximate the location of the discounted items. In this situation, a local message sending unit proximate the location of the item activates the display of the coupon graphic on the display screen of the communication unit carried by the shopper or mounted on the shopper's cart. ” Begum ’606 at 3:4–14.<br><br>“Prioritizer 115 may calculate or otherwise determine or set a priority value associated with content items, for example, based on one or more parameters, e.g., a priority requirement included in the campaign data or campaign-related definitions, a price or profit associated with presenting the content item, a fulfillment factor, a value indicating the probability that the content item matches its target audience, a value indicating the relative size (e.g., dimensions or bytes), a content item type identifier, or the like. For example, in one embodiment, prioritizer 115 may determine a priority value of “7” for a first content item, which may be associated with a price of 17 cents per serving and with a campaign which is expected to terminate within 8 hours, and may determine a priority value of “2” for a second content item, which may be associated with a price of 12 cents per serving and with a campaign which is expected to terminate within 6 days. In another embodiment, for example, prioritizer 115 may determine a priority value of “8” for a first content item associated with a “sporting events” type, and may determine a priority value of “3” for a second content item associated with a “restaurants” type. In yet another embodiment, for example, prioritizer 115 may determine a priority value of “6” for a first content item having a half-screen size or having a 35 Kilobytes data size, and |

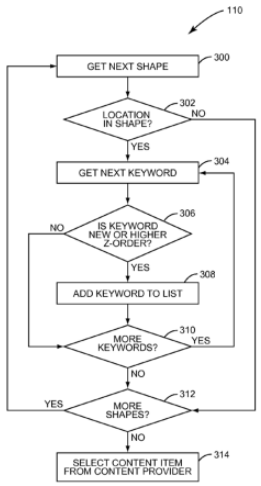
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| | may determine a priority value of “4” for a second content item having a quarter-screen size or having a 24 Kilobytes data size. Other suitable data or rules may be used to determine absolute or relative priorities of content items.” Levkovitz ’852 at [0135].<br><br>“In some embodiments, the system may determine to insert an advertisement to a message, or to refrain from inserting an advertisement to a message (e.g., to maintain the original message unmodified), based on an analysis taking into account whether one or more users is a subscriber of certain services. In one embodiment, for example, advertisements may be added to messages sent by devices owned by subscribers of a certain operator. In another embodiment, for example, advertisements may be not be added to messages sent by devices owned by subscribers of a certain operator, or messages sent by devices owned by subscribers of a certain operator may be maintained and delivered unmodified.” Levkovitz ’852 at [0230].<br><br>*See also* Sanctis ’837 at [0120].<br><br>  <br>FIG. 1<br>Bussmann ’294 at FIG. 1.<br><br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer |

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| | to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br><br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“In yet other embodiments, the category information may include a selection of whether to request exclusive or non-exclusive advertising rights in one or more selected tiles. Such “exclusive” rights may include the right to exclude other advertising content items from being displayed in connection with the exclusive tile for a designated period of exclusivity, or to exclude advertising content items from other advertisers offering a same or similar type of goods or services for the period of exclusivity. In the latter example, advertising publishers may provide, as additional category information, a type of goods or services being advertised. In either example, the tile or tiles subject to the exclusive rights may be blacked out on the tiled map for the duration of the exclusive rights. Other forms of exclusive rights may include, but are not limited to, any |

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| | suitable type of higher-value rights or premium service, such as the display of a larger icon relative to other advertisers, etc.” Bussmann ’294 at [0020].<br><br>“In some forms of the invention, location information describing the perimeters of business locations are sent to the mobile device and the mobile device communicates with the server if the location of the mobile device is located within the perimeter of the business location. In other forms of the invention, the location information of the mobile device is sent to the system and compared with information describing the perimeters of business locations. Alternatively, the business locations may be defined by a point and radius, or mathematical formula. This is exemplary and is not intended to limit the scope of the invention. As shown and described, a person having ordinary skill in the art is able to implement the invention in any number of varying forms.” Busch ’815 at [0338].<br><br>  <br>*FIG. 1*<br>Svendsen ’073 at Fig. 1. |

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| |  <br>*FIG. 3*<br>Svendsen ’073 at Fig. 3.<br>  <br>***FIG. 4A***<br>Svendsen ’073 at Fig. 4A. |

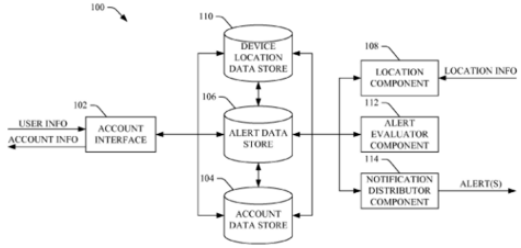
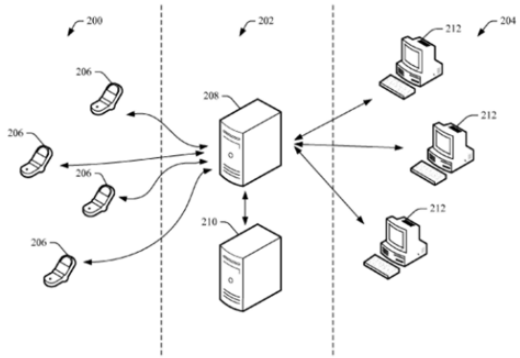
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| |  <br>***FIG. 4B***<br>Svendsen ’073 at Fig. 4B. |

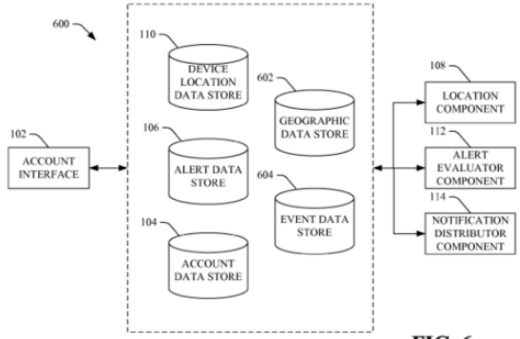
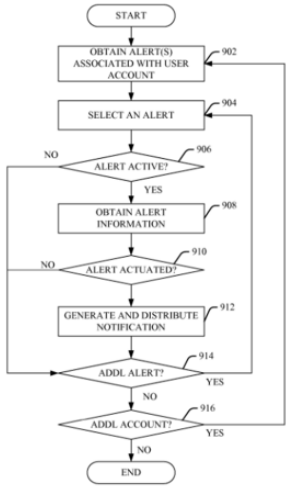
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| |  <br>FIG. 5<br>Svendsen ’073 at Fig. 5.<br><br>SHAPE \| Z-ORDER \| KEYWORDS<br>46 \| 0 \| Rock = 80, Country = 30, Pop = 30<br>48 \| 1 \| Alternative = 50<br>50 \| 2 \| Polka = 200<br>52 \| 3 \| Rap = 80<br>54 \| 4 \| Jazz = 10<br>56 \| 5 \| Beach = 95<br><br>FIG. 6B<br>Svendsen ’073 at Fig. 6B. |

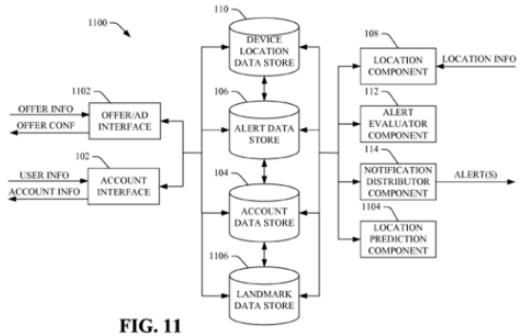
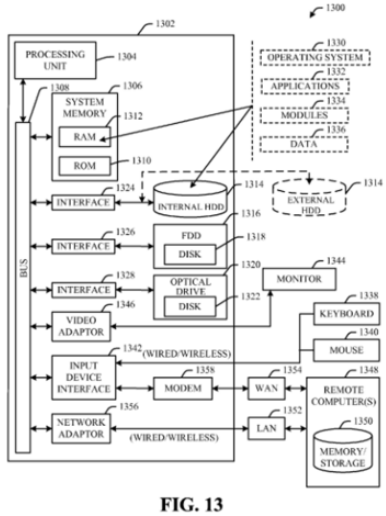
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| | “Thereafter, when a request is received from a requestor, one or more of the content items of one or more of the content providers are selected for delivery to the requester based on the geographic shapes defined by the one or more content providers, the tags and corresponding weights for the geographic shapes defined by the one or more content providers, and the location of the requestor.” Svendsen ’073 at 1:42–48.<br><br>“Then, based on the location of the requestor and the geographic shapes defined by the one or more content providers, a content provider is selected if necessary, and one or more content items of the content provider are selected for delivery to the requestor (step 110). Once selected, the one or more content items are delivered or caused to be delivered to the requester (step 112). As an example, returning to FIG. 2A, if the requestor is located at point 18, then, as shown in FIG. 2B, the requestor is located within the geographic shape 10 (Shape A) of this particular content provider. As such, the keywords and corresponding weights for the geographic shape 10 (Shape A) may then be utilized to select one or more content items of the corresponding content provider to deliver to the requestor. Note that if there are multiple content providers and the requester is located within geographic shapes of two or more content providers, one of the content providers is preferably selected as the content provider for which content is to be delivered to the requestor. An exemplary scheme for selecting the content provider from multiple content providers is discussed below with respect to FIG. 3.” Svendsen ’073 at 4:48–67.<br><br>“If instead requestor is located at point 22, then the requestor is located within the geographic shapes 10 through 16 (Shapes A, B, C, and D). As such, as illustrated in FIG. 2B, the keywords and weights for the geographic shapes 10 through 16 are aggregated according to the z-order values of the geographic shapes 10 through 16 to provide an aggregate list of keywords and corresponding weights to be used to select one or more content items to be delivered to the requester. Note that, in this case, the keyword Red is assigned to both the geographic shape 10 (Shape A) and the geographic shape 16 (Shape D). However, the weight assigned to the keyword Red is 80 in the geographic shape 10 (Shape A) and 20 in the geographic shape 16 (Shape D). Since the z-order value, or importance level, assigned to the geographic shape 16 (Shape D) is higher than that assigned to the geographic shape 10 (Shape A), the weight assigned to the keyword Red in the geographic shape 16 (Shape D) overrides the weight assigned to the keyword Red in the geographic shape 10 (Shape A). Similarly, the keyword Blue is assigned to both the geographic shape 10 (Shape A) and the geographic shape 14 (Shape C). However, the weight assigned to the keyword Blue is 30 in the geographic shape 10 (Shape A) and 90 in the geographic shape 14 (Shape C). Since the z-order value, or importance level, assigned to the geographic shape 14 (Shape C) is higher than that assigned to the geographic shape 10 (Shape A), the weight assigned to the keyword Blue in the geographic shape 14 (Shape C) overrides the weight assigned to the keyword Blue in the geographic shape 10 (Shape A). Thus, the aggregate list of |

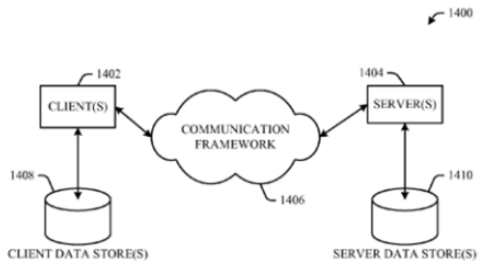
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| | keywords and corresponding weights for the requestor located at point 22 is Red with a weight of 20, Blue with a weight of 90, White with a weight of 50, and Green with a weight of 10. This aggregate list of keywords and corresponding weights may then be utilized to select content items of the corresponding content provider to be delivered to the requester.” Svendsen ’073 at 5:14–48.<br><br>“FIG. 3 is a more detailed illustration of step 110 of FIG. 1 according to one embodiment of the present invention. In this example, the one or more content providers are advertisers. However, again, the present invention is not limited thereto. First, a high bid is reset (step 200). Then, an account is obtained for a next advertiser (step 202). For the first iteration, the next advertiser is the first advertiser. The account of the advertiser includes information identifying the geographic shapes defined by the advertiser, the keywords and corresponding weights assigned to each of the geographic shapes, and the keywords assigned to the content items of the advertiser, which in this example are advertisements. Next, an aggregate list of keywords and corresponding weights for the advertiser is reset (step 204).” Svendsen ’073 at 6:16–29.<br><br>“At this point whether proceeding from step 212 or step 214, a determination is made as to whether there are more keywords assigned to the geographic shape (step 216). If so, steps 210 through 216 are repeated until all of the keywords assigned to the geographic shape have been processed. Once all of the keywords for the geographic shape have been processed, a determination is made as to whether there are more geographic shapes for the advertiser (step 218). If so, steps 206 through 218 are repeated until all of the geographic shapes for the advertiser have been processed. At that point, a bid for the advertiser is calculated based on the aggregate list of keywords for the advertiser generated in steps 206 through 218 (step 220).” Svendsen ’073 at 7:12–24.<br><br>“At this point, whether proceeding from step 222 or step 224, a determination is made as to whether there are more advertisers (step 226). If so, steps 202 through 226 are repeated until all advertisers have been processed. Once all of the advertisers have been processed, one or more advertisements of the advertiser having the highest bid are selected based on the aggregate list of the keywords for that advertiser (step 228). More specifically, in one embodiment, each of the advertisements of the advertiser having the highest bid may be scored as a function of the keywords in the aggregate list of keywords and the corresponding weights for the advertiser as compared to the keywords assigned to the advertisements of the advertiser. One or more advertisements having the highest score(s) may then be selected as advertisements to be delivered to the requestor. Once the advertisements are selected, the account of the advertiser may then be debited based on a predefined fee (step 230).” Svendsen ’073 at 7:32–48. |

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| | “FIG. 5 is a more detailed illustration of step 110 of FIG. 1 according to another embodiment of the present invention. In this embodiment, there is only one content provider. However, this process is equally applicable to an embodiment where there are multiple content providers. If there are multiple content providers, content from each content provider having defined a geographic shape in which the requestor is located may be selected and delivered to the requestor.” Svendsen ’073 at 8:62–9:2.<br><br>“FIGS. 6A through 6C graphically illustrate the process of FIG. 5 according to one embodiment of the present invention. FIG. 6A illustrates geographic shapes defined by a content provider to select geographic areas of interest to the content provider.” Svendsen ’073 at 9:62–66.<br><br>“More specifically, as illustrated in FIG. 6A, the audio provider has defined a geographic shape 46 selecting the state of North Carolina and geographic shapes 48 through 56 selecting corresponding geographic areas within the state of North Carolina. FIG. 6B illustrates keywords and corresponding weights assigned to each of the geographic areas 46 through 56 by the audio provider as well as z-order values, or importance levels, assigned to the geographic shapes 46 through 56 by the audio provider. Note that in this example, the keywords are music genres.” Svendsen ’073 at 10:3–12.<br><br>*See also* Svendsen ’073 at Fig. 6A, Fig. 6C, 3:11–34, and 3:35–63.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 6[pre]. A system comprising: | To the extent the preamble is limiting, the following prior art expressly or inherently discloses and renders obvious “[a] system.” *See* limitations [6a]–[6m] below.<br><br>*See* above at row 1[pre]. |
| [6a] memory; | The following prior art expressly or inherently discloses and renders obvious “memory.” For example: |

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| |  <br>**FIG. 1**<br>Hughes ’666 at Fig. 1.<br>  <br>**FIG. 2**<br>Hughes ’666 at Fig. 2. |

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| |  <br>**FIG. 6**<br>Hughes ’666 at Fig. 6.<br>  <br>**FIG. 9**<br>Hughes ’666 at Fig. 9. |

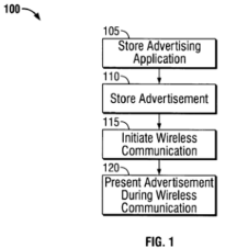
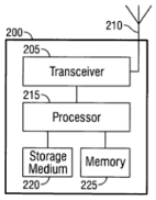
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| |  <br>**FIG. 11**<br>Hughes ’666 at Fig. 11.<br>  <br>**FIG. 13**<br>Hughes ’666 at Fig. 13. |

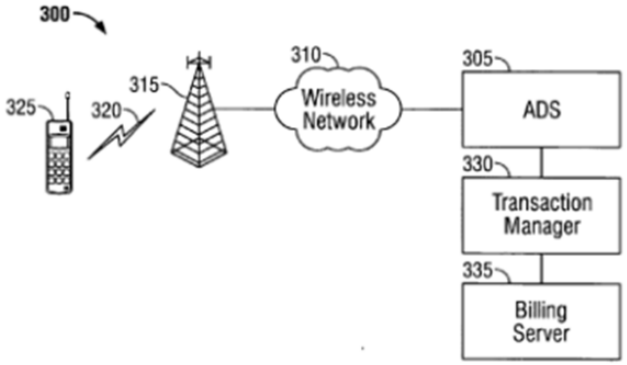
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| |  <br>**FIG. 14**<br>Hughes ’666 at Fig. 14.<br>“As used herein, the terms “component,” “system” and the like are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on computer and the computer can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.” Hughes ’666 at [0028].<br>“Furthermore, the disclosed subject matter may be implemented as a system, method, apparatus, or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof to control a computer or processor based device to implement aspects detailed herein. The term “article of manufacture” (or alternatively, “computer program product”) as used herein is intended to encompass a computer program accessible from any computer-readable device, carrier, or media. For example, computer readable media can include but are not limited to magnetic storage devices |

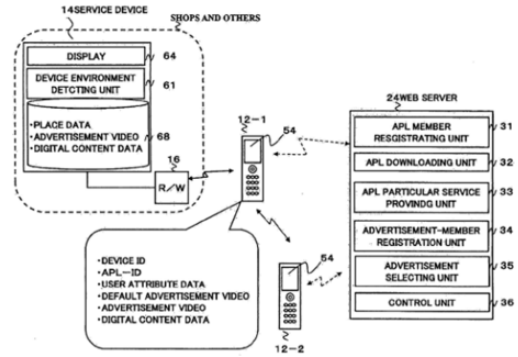
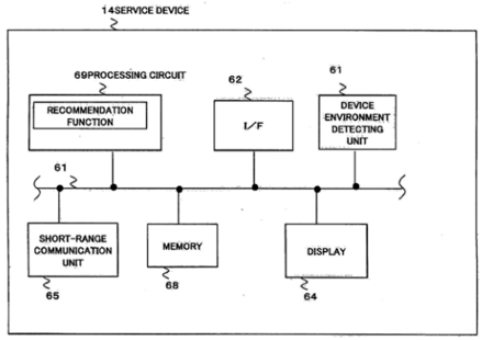
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| | (e.g., hard disk, floppy disk, magnetic strips . . . ), optical disks (e.g., compact disk (CD), digital versatile disk (DVD) . . . ), smart cards, and flash memory devices (e.g., card, stick).” Hughes ’666 at [0030].<br><br>“Location information for enrolled mobile devices can be maintained in a device location data store 110. Alternatively, location information for each mobile device can be stored with account information for the mobile device and maintained in the account data store 104. The device location data store 110 (or account data store 104) can maintain a history of previous location information for the mobile devices. The location information can include a timestamp indicating the time at which the location information was generated or recorded.” Hughes ’666 at [0036].<br><br>“Referring now to FIG. 2, an exemplary system for facilitating provision of location based notifications is illustrated. The system can include a set of mobile devices 200, an alert system 202 that manages alerts for the set of mobile devices and a set of terminals 204 that can connect to the alert system 202 to create and manage accounts and alerts associated with the set of mobile devices 200. The set of mobile devices 200 can include any number of mobile devices 206. Mobile devices 206 can include laptops, personal digital assistants (PDAs), cell phones, smartphones, devices with Wi-Fi and the like. Location information for the mobile devices 206 can be provided to the alert system 202.” Hughes ’666 at [0039].<br><br>“The alert system 202 can include a network server 208 (e.g., a HTTP server) and a data store server 210 (e.g., a database server).” Hughes ’666 at [0040].<br><br>“The data store server 210 can manage and support location, account and alert information. The network server 208 can allow users to access account information maintained in the data store server 210.” Hughes ’666 at [0040].<br><br>“The alert system 1100 can include an offer or advertisement interface 1102 that allows vendors to define and purchase advertisement alerts. Vendors can specify text to be included in the advertisement notification, a geographic location or region associated with the advertisement alert and a category or classification for the advertisement alert. Categories can describe the goods or services offered by the vendor. For example, movie theater advertisements can be classified as entertainment, or more specifically as movies, while an advertisement alert for a restaurant can be classified as dining.” Hughes ’666 at [0088].<br><br>“Additionally, it should be further appreciated that the methodologies disclosed throughout this specification are capable of being stored on an article of manufacture to facilitate transporting and transferring such methodologies to computers. The term article of manufacture, as used, is intended to encompass a computer program accessible from any computer-readable device, carrier, or media.” Hughes ’666 at [0100]. |

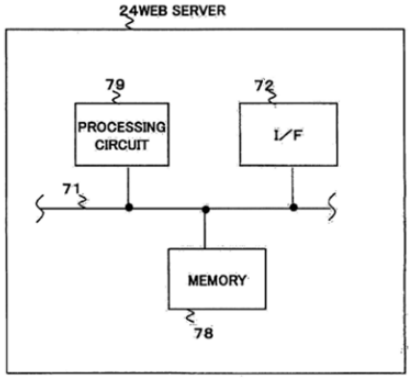
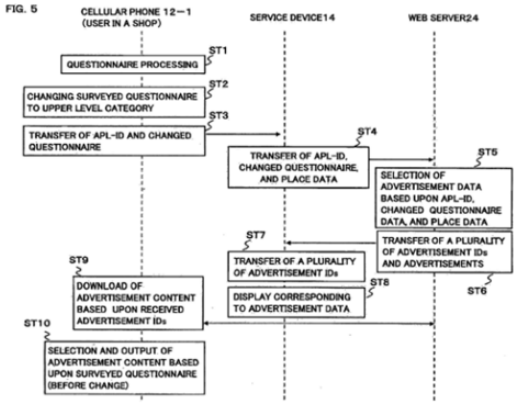
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| | “While the subject matter has been described above in the general context of computer-executable instructions of a computer program that runs on a computer and/or computers, those skilled in the art will recognize that the system and methods disclosed herein also may be implemented in combination with other program modules. Generally, program modules include routines, programs, components, data structures, etc. that perform particular tasks and/or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the inventive methods may be practiced with other computer system configurations, including single-processor or multiprocessor computer systems, mini-computing devices, mainframe computers, as well as personal computers, hand-held computing devices (e.g., personal digital assistant (PDA), phone, watch . . . ), microprocessor-based or programmable consumer or industrial electronics, and the like. The illustrated aspects may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. However, some, if not all aspects of the systems and methods described herein can be practiced on stand-alone computers. In a distributed computing environment, program modules may be located in both local and remote memory storage devices.” Hughes ’666 at [0101].<br><br>“With reference again to FIG. 13, the exemplary environment 1300 for implementing various aspects of the embodiments includes a mobile device or computer 1302, the computer 1302 including a processing unit 1304, a system memory 1306 and a system bus 1308. The system bus 1308 couples system components including, but not limited to, the system memory 1306 to the processing unit 1304. The processing unit 1304 can be any of various commercially available processors. Dual microprocessors and other multi-processor architectures may also be employed as the processing unit 1304.” Hughes ’666 at [0102].<br><br>“The system memory 1306 includes read-only memory (ROM) 1310 and random access memory (RAM) 1312. A basic input/output system (BIOS) is stored in a non-volatile memory 1310 such as ROM, EPROM, EEPROM, which BIOS contains the basic routines that help to transfer information between elements within the computer 1302, such as during start-up. The RAM 1312 can also include a high-speed RAM such as static RAM for caching data.” Hughes ’666 at [0103].<br><br>“The computer or mobile device 1302 further includes an internal hard disk drive (HDD) 1314 (e.g., EIDE, SATA), which internal hard disk drive 1314 may also be configured for external use in a suitable chassis (not shown), a magnetic floppy disk drive (FDD) 1316, (e.g., to read from or write to a removable diskette 1318) and an optical disk drive 1320, (e.g., reading a CD-ROM disk 1322 or, to read from or write to other high capacity optical media such as the DVD). The hard disk drive 1314, magnetic disk drive 1316 and optical disk drive 1320 can be connected to the system bus 1308 by a hard disk drive interface 1324, a magnetic disk drive interface 1326 and an optical drive interface 1328, respectively. The interface 1324 for external drive |

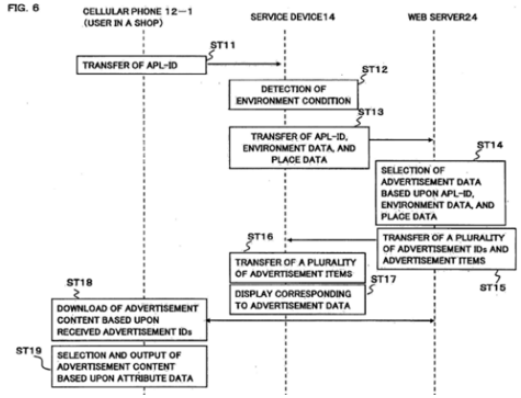
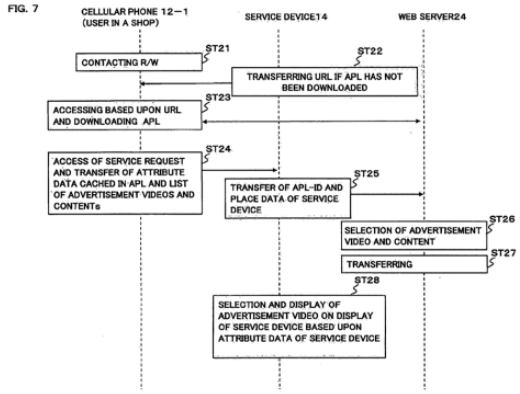
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| | implementations includes at least one or both of Universal Serial Bus (USB) and IEEE 1194 interface technologies. Other external drive connection technologies are within contemplation of the subject systems and methods.” Hughes ’666 at [0104].<br><br>“The drives and their associated computer-readable media provide nonvolatile storage of data, data structures, computer-executable instructions, and so forth. For the computer 1302, the drives and media accommodate the storage of any data in a suitable digital format. Although the description of computer-readable media above refers to a HDD, a removable magnetic diskette, and a removable optical media such as a CD or DVD, it should be appreciated by those skilled in the art that other types of media which are readable by a computer, such as zip drives, magnetic cassettes, flash memory cards, cartridges, and the like, may also be used in the exemplary operating environment, and further, that any such media may contain computer-executable instructions for performing the methods for the embodiments of the data management system described herein.” Hughes ’666 at [0105].<br><br>“A number of program modules can be stored in the drives and RAM 1312, including an operating system 1330, one or more application programs 1332, other program modules 1334 and program data 1336. All or portions of the operating system, applications, modules, and/or data can also be cached in the RAM 1312. It is appreciated that the systems and methods can be implemented with various commercially available operating systems or combinations of operating systems.” Hughes ’666 at [0106].<br><br>“A user can enter commands and information into the computer 1302 through one or more wired/wireless input devices, e.g., a keyboard 1338 and a pointing device, such as a mouse 1340. Other input devices (not shown) may include a microphone, an IR remote control, a joystick, a game pad, a stylus pen, touch screen, or the like. These and other input devices are often connected to the processing unit 1304 through an input device interface 1342 that is coupled to the system bus 1308, but can be connected by other interfaces, such as a parallel port, an IEEE 1194 serial port, a game port, a USB port, an IR interface, etc. A display device 1344 can be used to provide a set of group items to a user. The display devices can be connected to the system bus 1308 via an interface, such as a video adapter 1346.” Hughes ’666 at [0107].<br><br>“FIG. 14 is a schematic block diagram of a sample-computing environment 1400 with which the systems and methods described herein can interact. The system 1400 includes one or more client(s) 1402. The client(s) 1402 can be hardware and/or software (e.g., threads, processes, computing devices). The system 1400 also includes one or more server(s) 1404. Thus, system 1400 can correspond to a two-tier client server model or a multi-tier model (e.g., client, middle tier server, data server), amongst other models. The server(s) 1404 can also be hardware and/or software (e.g., threads, processes, computing devices). One possible communication |

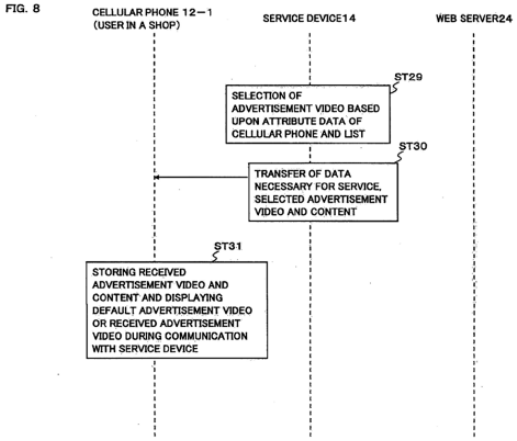
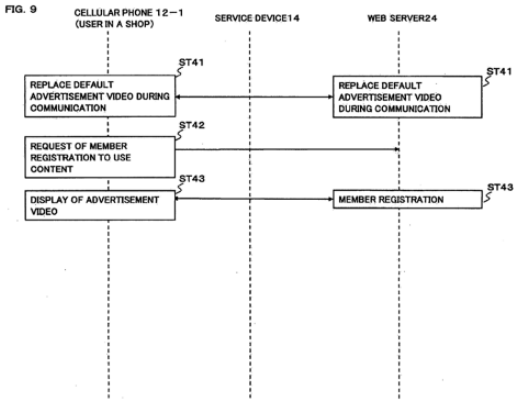
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| | between a client 1402 and a server 1404 may be in the form of a data packet adapted to be transmitted between two or more computer processes. The system 1400 includes a communication framework 1406 that can be employed to facilitate communications between the client(s) 1402 and the server(s) 1404. The client(s) 1402 are operably connected to one or more client data store(s) 1408 that can be employed to store information local to the client(s) 1402. Similarly, the server(s) 1404 are operably connected to one or more server data store(s) 1410 that can be employed to store information local to the servers 1404.” Hughes ’666 at [0113].<br>  <br><br>FIG. 1<br>  <br><br>FIG. 2<br>Macaluso ’238 at FIG. 2. |

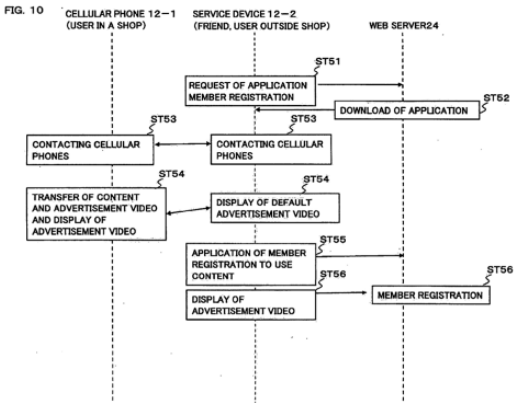
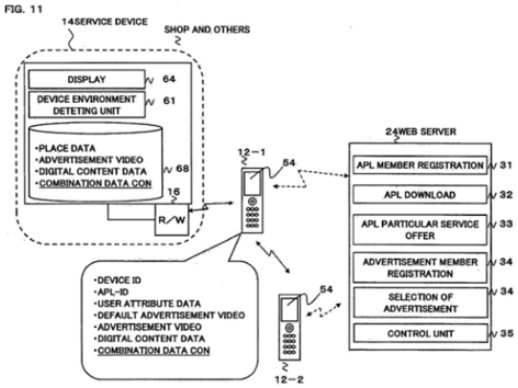
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| |  <br>FIG. 3<br>Macaluso ’238 at FIG. 3.<br>“FIG. 2 is a block diagram of a mobile phone 200 that may be used in connection with the described techniques. The mobile phone 200 includes a transceiver 205 connected to an antenna 210 for communicating voice and data to and from a remote server, wireline telephone connection, and/or another mobile device through a wireless communication system in accordance with conventional techniques. For example, the wireless communication system may be a CDMA, GSM, or UMTS network, or any other type of mobile network. The transceiver 205 is connected to a processor 215 that controls the operation of the mobile phone 200, including the operation of the transceiver 205. A storage medium 220, which may be removable, read-only, or read/write media and may be magnetic-based, optical-based, semiconductor-based media, or a combination of these, may store operating system software for the mobile phone 200. A memory 225 may store additional, less vital information, such as applications that may be loaded into the mobile phone 200, including an application for displaying advertisements on the mobile phone 200. In addition, a cache containing one or more advertisements may be stored in the memory 225. Both the memory 225 and the storage medium 220 are connected to the processor 215. The processor 215 may operate in accordance with software, applications, or other instructions stored in the memory 225 and/or the storage medium 220.” Macaluso ’238 at [0025]. |

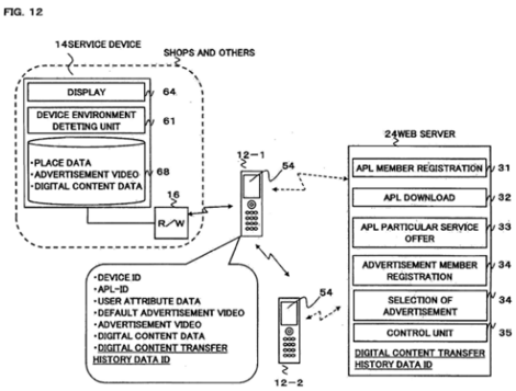
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| | FIG. 1<br>  <br><br>Kinoshita ’866 at Fig. 1.<br>FIG. 3<br>  <br><br>Kinoshita ’866 at Fig. 3. |

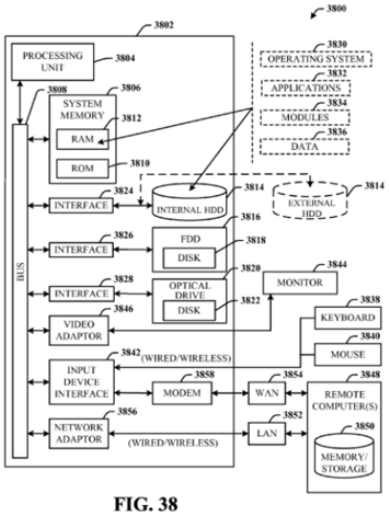
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| | FIG. 4<br>  <br><br>Kinoshita ’866 at Fig. 4.<br>  <br><br>Kinoshita ’866 at Fig. 5. |

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| |  <br>Kinoshita ’866 at Fig. 6.<br>  <br>Kinoshita ’866 at Fig. 7. |

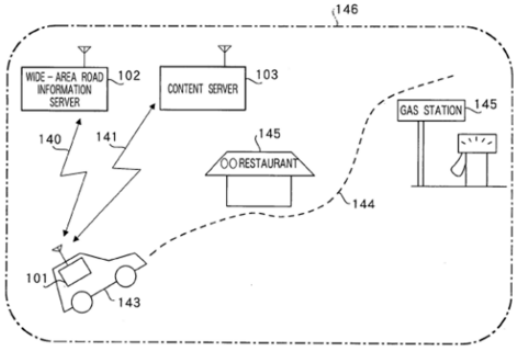
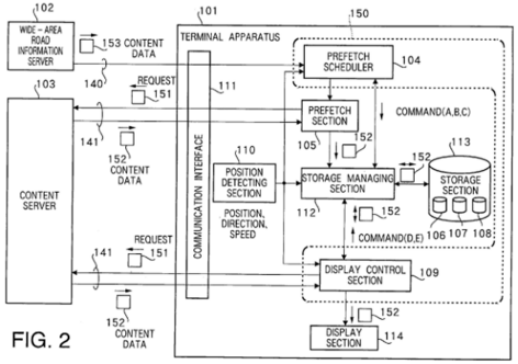
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| |  <br>Kinoshita ’866 at Fig. 8.<br>  <br>Kinoshita ’866 at Fig. 9. |

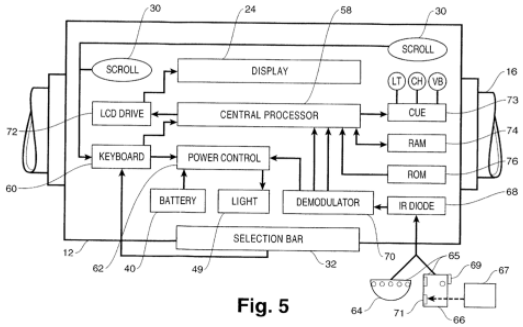
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| |  <br>Kinoshita ’866 at Fig. 10.<br>  <br>Kinoshita ’866 at Fig. 11. |

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| | FIG. 12<br>  <br><br>Kinoshita ’866 at Fig. 12.<br>“The second aspect of the present invention is a service processing device comprising: an interface that performs short-range communication with a mobile communication device directly or indirectly; a memory that stores place data; and a controller that receives attribute data of a user or user's mobile communication device from user's mobile communication device, transfers the attribute data and the place data read out from the memory to the server, and performs announcement based upon recommendation data corresponding to the place data received from the server.” Kinoshita ’866 at [0010].<br>“The fourth aspect of the present invention is a server for providing information associated with a mobile communication device that performs short-range communication with a service processing device installed at a predetermined place, the server comprising: an interface that receives attribute data of a user or his mobile communication device and place data of a place where the service processing device is installed from the mobile communication device or the service processing device; a memory that stores recommendation data which is associated with the attribute data and the place data; and a controller that reads out, from the memory, the recommendation data which is associated with the attribute data received by the interface and the place data, and transfers the recommendation data to the mobile communication device or the service processing device through the interface.” Kinoshita ’866 at [0012].<br>“The service device 14 includes, for example, a device environment detecting unit 61, an interface 62, a display 64, a short-range communication unit 65, a memory 68, and a processing circuit 69. ” Kinoshita ’866 at [0037]. |

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| | “Referring to FIG. 4, the Web server 24 includes, for example, an interface 62, a memory 68, and a processing circuit 69.” Kinoshita ’866 at [0041].<br>  <br><br>**FIG. 38**<br>Smith ’558 at Fig. 38.<br>“As used in this application, the terms “component,” “module,” “system,” and the like are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on a server and the server can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.” Smith ’558 at [0058].<br>“Furthermore, the one or more embodiments may be implemented as a method, apparatus, or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof to control a computer to implement the disclosed embodiments. The term “article of manufacture” (or alternatively, “computer program product”) as used herein is intended to encompass a computer program accessible from any computer-readable device, carrier, or media. For |

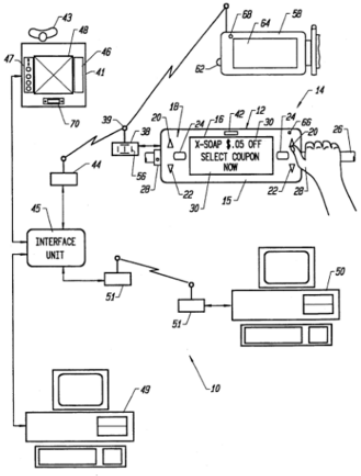
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| | example, computer readable media can include but are not limited to magnetic storage devices (e.g., hard disk, floppy disk, magnetic strips . . . ), optical disks (e.g., compact disk (CD), digital versatile disk (DVD) . . . smart cards, and flash memory devices (e.g., card, stick).” Smith ’558 at [0060].<br><br>“Generally, program modules include routines, programs, components, data structures, etc., that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the inventive methods can be practiced with other computer system configurations, including single-processor or multiprocessor computer systems, minicomputers, mainframe computers, as well as personal computers, hand-held computing devices, microprocessor-based or programmable consumer electronics, and the like, each of which can be operatively coupled to one or more associated devices.<br><br>The illustrated aspects may also be practiced in distributed computing environments where certain tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules can be located in both local and remote memory storage devices.<br><br>A computer typically includes a variety of computer-readable media. Computer-readable media can be any available media that can be accessed by the computer and includes both volatile and nonvolatile media, removable and non-removable media. By way of example, and not limitation, computer-readable media can comprise computer storage media and communication media. Computer storage media includes both volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CD-ROM, digital video disk (DVD) or other optical disk storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the computer.<br><br>Communication media typically embodies computer-readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism, and includes any information delivery media. The term “modulated data signal” means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of the any of the above should also be included within the scope of computer-readable media.” Smith ’558 at [0249]–[0252]. |

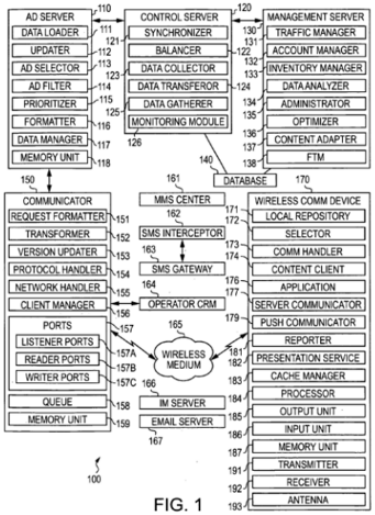
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| |  <br>FIG. 1<br>Sato ’965 at Fig. 1.<br>  <br>FIG. 2<br>Sato ’965 at Fig. 2.<br>“Terminal apparatus 101 is, for example, a car navigation system with communication function, PDA (Personal Data Assist), notebook personal computer or the like. Further, terminal apparatus 101 may be a portable communication terminal such as a cellular telephone and PHS.” Sato ’965 at [0045].<br>“Wide-area road information server 102 and content server 103 are, for example, server computers with arbitrary configurations.” Sato ’965 at [0050]. |

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| | “Storage section 113 may be a hard disk, for example, or any memory.” Sato ’965 at [0067].<br>  <br><br>Fig. 5<br>Begum ’880 at Fig. 5.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“The electronic shopping cart handle of the preferred embodiment includes an internal operating system that enables the device to incorporate efficient power management in order to maximize the life of the power pack that is provided for each device. ” Begum ’880 at 4:10–14.<br>“Because of improved design of compact integrated chip technologies use of an integrated chip incorporating an entire computer on a chip is preferred. This selection allows the essential processor and memory unit to be extremely compact allowing the low-profile configuration of the electronic shopping cart handle described in this specification” Begum ’880 at 4:39–44.<br>“The invented device is a dedicated appliance computer that is capable of being reprogrammed in order to add additional features to the device as users become more sophisticated. Such features as the automatic display of advertisements at select store locations and the global updating of displayable data by wireless transmissions are described in the referenced application.” Begum ’880 at 4:53–59. |

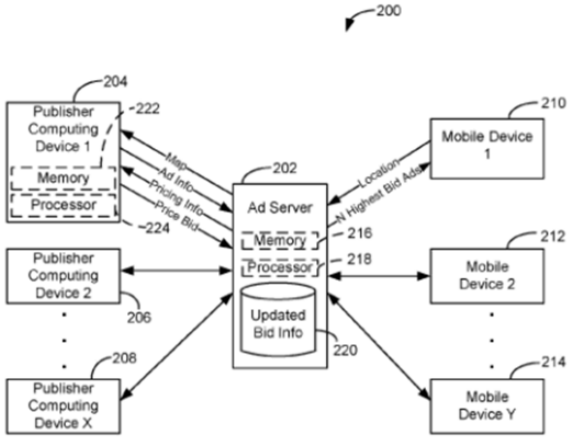
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| | “The user interface is designed to allow the user to access all of the available data including stored promotional graphics by a control system that is intuitive. Furthermore, the hybrid system devised for automatic display of promotional graphics, is designed to incorporate features that are beneficial in facilitating automatic update of the promotional advertisements.” Begum ’880 at 4:65–5:4.<br><br>“Referring to the schematic illustration of FIG. 5, the display unit 12 contains a central processor 58 which is an integrated circuit chip for programs to control the system operation. The processor receives and directs data for operation of the display unit, and is preferably a state of the art chip, such as an Intel 286 or more expensive 386 chip. Although more advanced logic circuits are not necessary for the contemplated informational and operational tasks involved in the shopping cart handle, advanced state of the art processors can be used to advantage for power management. The processor 58 connects to a standard keyboard chip 60, which as noted, may be integrated into the processor chip. The keyboard chip 60 includes the circuity necessary to interpret signals from the scroll buttons 30 or the selection bar 32.” Begum ’880 at 8:10–24.<br><br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47.<br><br>“The trigger and data signals are demodulated in a converter circuit 70 and passed to the central processor 58 for reprogramming the memory or activating retrieval of memory packets for display of advertising information in the display screen 24 under control of the LCD driver and controller circuit 72.” Begum ’880 at 8:48–53.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1. |

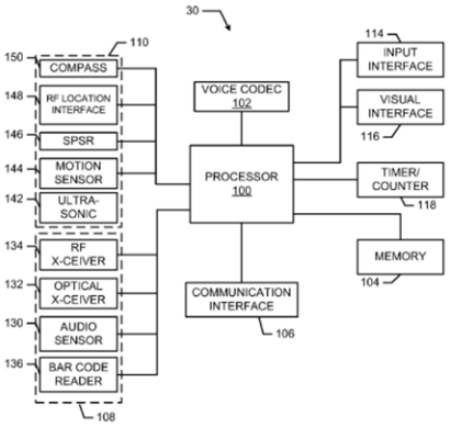
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| | “To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>“The product control signals may be utilized in this compare process for rapidly locating the presence or absence of a particular promotional screen graphic in memory and initiating display of either the screen graphic in memory or the screen graphic formatted from the screen graphic signal transmitted by the transceiver unit 65. In this manner, the shopping carts that are in use, are continually updated as they pass a transceiver unit 65, such that even if an outdated ad is stored in memory, the updated ad will be presented once the shopper has arrived at the location of the promoted item. Although this system has the minor drawback of potentially storing an outdated promotional graphic in memory that is accessible by a shopper during review of the product promotion file using the display unit in an interactive mode, the system is self-correcting at the promoted product location.” Begum ’880 at 10:16–31.<br><br>“The random access memory (RAM) 74 and read only memory (ROM) 76 store the systems operations data and reprogrammable user data for displaying store directory and product information in the display screen 24.” Begum ’880 at 10:32–35. |

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| | “Although the devised shopping cart display handle will have the capabilities of a personal computer, a dedicated informational format, as schematically illustrated in FIGS. 6-10, is incorporated to ease user familiarization and encourage adoption as a shopping aid.” Begum ’880 at 10:37–41.<br><br>*See also* Begum ’880 at Abstract, Fig. 1, 1:60–2:5, 4:33–38, 5:65–6:4, 9:12–16, 9:16–29, and 9:56–65.<br><br>  <br><br>FIG. 1<br>Begum ’606 at FIG. 1.<br><br>“The customer display device 12 is part of a portable communication unit 14 having a control panel 15 with a display screen 16 and easily operated user controls 18, such as complementary up and down scroll buttons 20, 22, and select buttons 24” Begum ’606 at 4:17–21. |

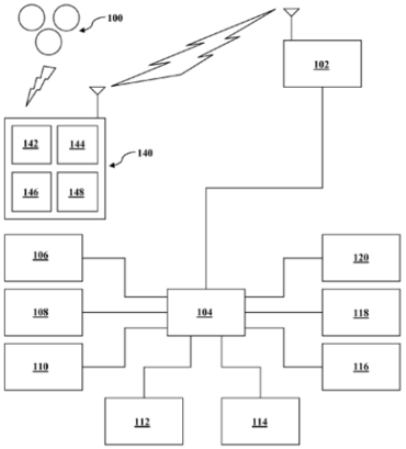
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| |  <br>FIG. 1<br>Levkovitz ’852 at Fig. 1.<br>“In some embodiments, for example, the server may include a memory unit to store a plurality of content items from which the content item is selected.<br>In some embodiments, for example, the memory unit may include a volatile memory or a non-volatile memory.<br>In some embodiments, for example, the server is to periodically copy the content of the volatile memory into a non-volatile memory.” Levkovitz ’852 at [0012]–[0014].<br>“FIG. 1 schematically illustrates a block diagram of a wireless communication system 100 able to deliver content in accordance with an embodiment of the invention. System 100 may include, for example, an ad server 110, a control server 120, a management server 130, a database 140, a communicator 150, and one or more wireless communication devices, e.g., a wireless communication device 170.” Levkovitz ’852 at [0094].<br>“Ad server 110 may include one or more servers, or a “server farm”, which may be operatively connected to communicator 150. Ad server 110 may process content requests stored in the queue 158 of communicator 150, e.g., in accordance with a pre-defined order or algorithm.” Levkovitz ’852 at [0098]. |

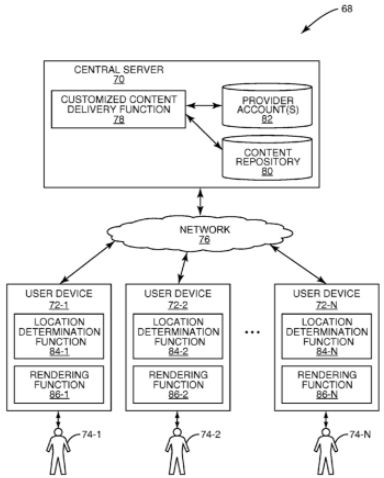
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| | “In one embodiment, memory unit 118 may include a non-volatile memory, for example, a long term memory unit, a disk, a hard disk drive, or the like. In another embodiment, memory unit 118 may include a volatile memory, for example, a Random Access Memory (RAM), a Dynamic RAM (DRAM), a Synchronous DRAM (SD-RAM), a Flash memory, a cache memory, a buffer, a stack, a short term memory unit, or the like.” Levkovitz ’852 at [0125].<br><br>“In one embodiment, memory unit 159 may include a non-volatile memory, for example, a long term memory unit, a disk, a hard disk drive, or the like. In another embodiment, memory unit 159 may include a volatile memory, for example, a Random Access Memory (RAM), a Dynamic RAM (DRAM), a Synchronous DRAM (SD-RAM), a Flash memory, a cache memory, a buffer, a stack, a short term memory unit, or the like.” Levkovitz ’852 at [0142].<br><br>“Management server 130, control server 120, ad server 110, communicator 150, and/or other components of system 100, may be implemented, for example, using one or more computing platforms or computing devices, e.g., one or more computers or servers including a processor, a memory unit, a storage unit, an input unit, an output unit, a transmitter, a receiver, an antenna, a power source, an Operating System, software applications, and/or other suitable software components and/or hardware components.” Levkovitz ’852 at [0173].<br><br>“The mobile devices 30 within the m-commerce environment 8 can be implemented with any portable communication device capable of over-the-air or through-the-air radio frequency (“RF”) communication, as understood by those skilled in the art, with the m-commerce server 10. For example, the mobile device 30 can be a mobile telephone, an email communication device (e.g., such as those sold under the trademark BLACKBERRY), a personal digital assistant (PDA), or other mobile device. Regardless of the embodiment, each of the mobile devices 30 preferably includes a display 32 (e.g., a liquid crystal display (“LCD”)) capable of displaying the textual and/or graphical e-commerce content distributed by the m-commerce server 10.” Sanctis ’837 at [0030].<br><br>“Also, as shown in FIG. 7, and as will be understood by those skilled in the art, the mobile devices 30 can download client application software 41 to be stored in memory, e.g., flash memory 40, of the mobile device 30 and can include mobile device enhancement program product 42 or software and application program interface program product or software from an input/output having download 48, e.g., wireless or hardwire, capabilities associated with the mobile device 30 via a communication link 26 with another computer or the server 10, or be provided with client application program product or software upon purchase of the mobile device, to enhance client communication capabilities to the m-server 10, to enhance GUI displays to the user, |

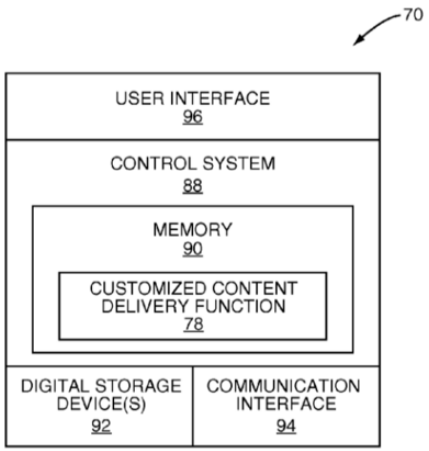
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| | and to enhance other features 44 for the user as a set of program instruction as understood by those skilled in the art and as described herein, such as mobile alerts, make purchase consummation, gathering account information, viewing detail on product, viewing past orders, shipment tracking, and security encryption.” Sanctis ’837 at [0038].<br>  <br><br>FIG. 2<br>Bussmann ’294 at FIG. 2.<br>“FIG. 2 shows an example embodiment of a location-based advertising use environment 200. Use environment 200 comprises an advertising server 202 in communication with a plurality of advertising publisher computing devices 204, 206, 208, and also with a plurality of devices 210, 212, 214 that request and receive advertising content from the advertising server 202. In the depicted embodiment, the number of advertising publisher client computing devices in communication with the advertising server 202 is illustrated as a generic number X, and the number of requesting/receiving devices is illustrated as a generic number Y, indicating that any suitable number of advertising publisher client computing devices and requesting/receiving devices may be in communication with the advertising server 202 at any time.<br>The advertising server 202 comprises memory 216 and a processor 218, wherein the memory 216 comprises instructions stored thereon that are executable by the processor 218 to perform the various methods of |

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| | operating an advertising server disclosed herein. The advertising server 202 further comprises a database 220 that stores various items of information related to the provision of location-based advertising services. For example, the database 220 may store user account information related to the advertising publishers and/or consumer devices that utilize the system. The database 220 also may store advertising content provided by each advertising publisher, and bid information related to the advertising content. The term “updated bid information” may be used herein to describe such current bid information, as bids may be submitted and/or modified by advertising publishers on a continuous, rolling basis. The updated bid information may include such information as the geographic locations and time intervals selected by each advertising publisher for the distribution of advertising content, category information related to the type of advertising content provided by each advertising publisher and to the specific distribution services requested by the advertising publisher, pricing information related to the price paid by each advertising publisher for a desired transaction type (per view, per click-through, etc.), payment information related to the method of payment used by each advertising publisher (pre-paid credits, debit/credit card info, etc.), or any other suitable information.” Bussmann ’294 at [0012]–[0013].<br>FIG. 2<br>  <br>Mello ’479 at FIG. 2. |

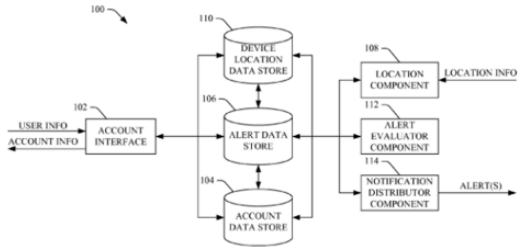
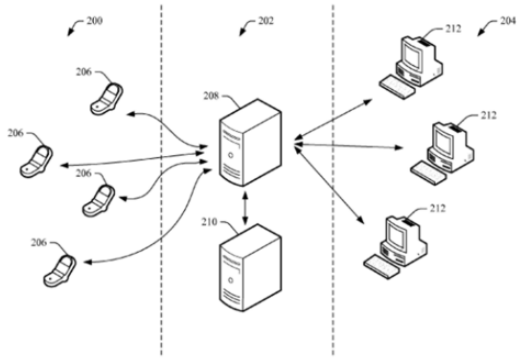
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| | “FIG. 2 is a detailed block diagram of an example implementation of the PPM 30 of FIG. 1. As discussed above, the PPM 30 may be used to monitor the use of a location-based web service application by a monitored person (e.g., the monitored person 32 of FIG. 1). It may also be used to collect location information and/or motion information associated with the use of the location-based web application. In general, the PPM 30 includes electronic components configured to detect and/or collect media monitoring information, location information, and/or motion information, and to communicate the information to the central facility 60 of FIG. 1 for subsequent analyses. As shown in FIG. 2, the PPM 30 includes a processor 100, a voice coder/decoder (CODEC) 102, a memory 104, a communication interface 106, a plurality of media monitoring sensors 108, a plurality of location and motion sensors 110, an input interface 114, a visual interface 116 and a timer/counter 118, all of which are communicatively coupled as shown.” Mello ’479 at [0036].<br><br>“It is to be understood that the example machine accessible instructions of the flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be executed by a processor, a controller and/or any other suitable processing device. For example, the example machine accessible instructions of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be embodied in coded instructions stored on a tangible medium such as a flash memory, or random access memory (RAM) associated with a processor. Alternatively, some or all of the example flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be implemented using an application specific integrated circuit (ASIC), a programmable logic device (PLD), a field programmable logic device (FPLD), discrete logic, hardware, firmware, etc. ” Mello ’479 at [0118]. |

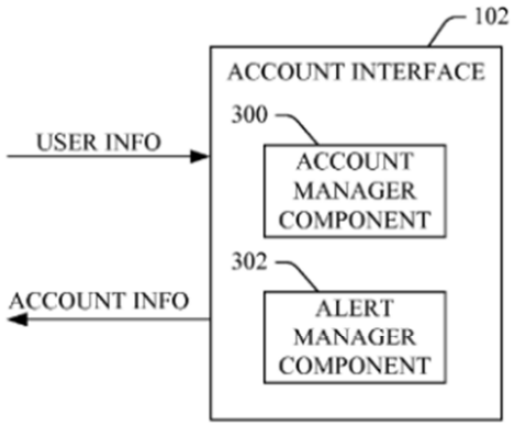
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| |  <br>FIG. 1<br>Busch ’815 at Fig. 1.<br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, integration of location data with customer relationship management systems and systems to determining retail business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br>“With reference to FIG. 1 GPS satellites 100 operate to determine the location of a mobile device 140 that has a number of features available based upon the location data. The mobile device 140 provides a user interface 142, GPS receiver 144, CPU and memory 146, and radio 148. Examples of mobile device 140 include cellular phones, personal digital assistants, pagers, laptop computers, automobile navigation systems, among others. Mobile device 140 receives GPS signals and determines its location. For purposes of illustration and without limitation, this may occur solely through using the GPS system, or may occur by using a filter to combine location data from the GPS system and another system such as cell-tower-triangulation in order to obtain a more accurate location. The mobile device 140 is wirelessly coupled to an access point 102 with a built in |

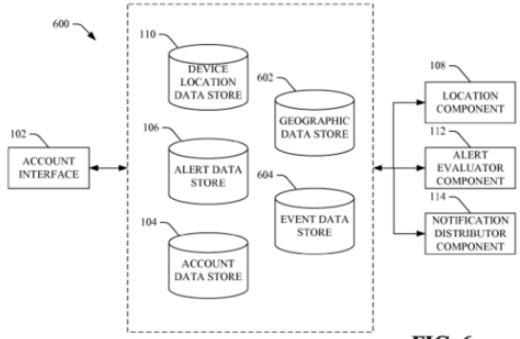
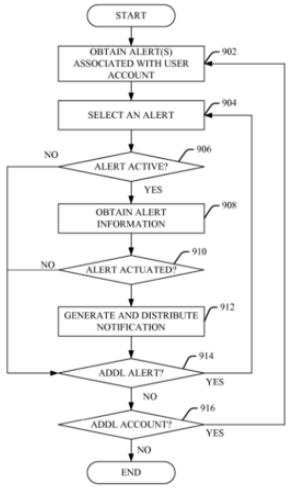
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| | radio 148. The access point 102 is coupled to the Internet 104 or other network. A number of other systems or services are available to the device over the Internet 104 or other network optionally including but not limited to an inventory system 106, advertisement system 108, search engine 110, mapping, business location, GIS, and routing database 112, user information database 114, advertiser information database 116, payment system 118, and phone system 120.” Busch ’815 at [0334].<br>  <br><br>FIG. 11<br>Svendsen ’073 at Fig. 11. |

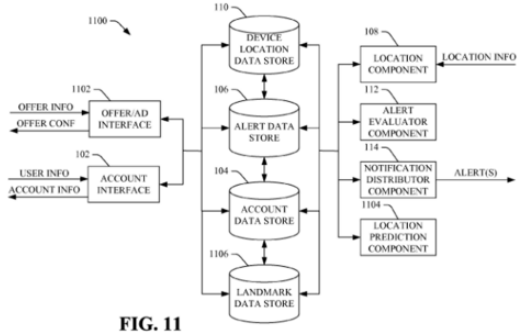
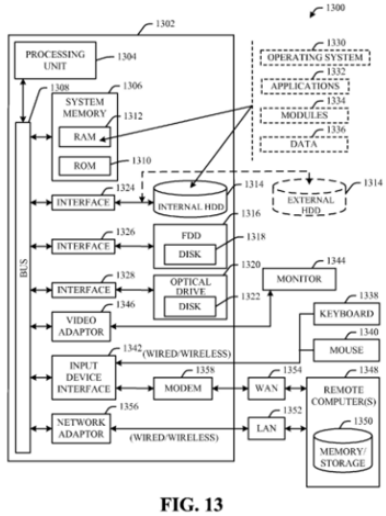
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| |  <br>***FIG. 13***<br>Svendsen ’073 at Fig. 13.<br>“FIG. 11 illustrates a system 68 for customized content delivery according to one embodiment of the present invention. In general, the system 68 includes a central server 70 and a number of user devices 72-1 through 72-N having associated users 74-1 through 74-N. The central server 70 and the user devices 72-1 through 72-N are enabled to communicate via a network 76. The network 76 may be any type of Wide Area Network (WAN), Local Area Network (LAN), or the like, or any combination thereof. In addition, the network 76 may include wired components, wireless components, or both wired and wireless components. As an example, the network 76 may be the Internet.” Svendsen ’073 at 13:27–38.<br>“The central server 70 includes a customized content delivery function 78, which may be implemented in software, hardware, or a combination thereof.” Svendsen ’073 at 13:39–41.<br>“In addition, the central server 70 may include a content repository 80. For each of a number of content providers, the content repository 80 may store the content items or references to the content items provided by each of the content providers. As discussed above, the content providers may be advertisers, media content providers, or the like. As such, the content items provided by the content providers may be advertisements, media items, or the like. Lastly, the central server 70 hosts or otherwise has access to a provider accounts |

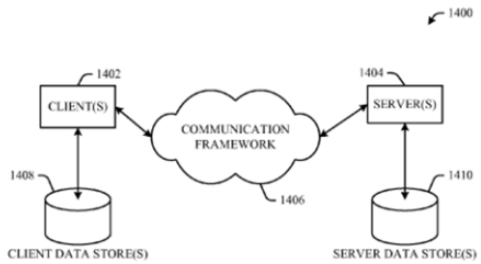
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| | repository 82, which includes a provider account, or account, for each of the content providers.” Svendsen ’073 at 13:41–52.<br><br>“FIG. 13 is a block diagram of the central server 70 of FIG. 11 according to one embodiment of the present invention. In general, the central server 70 includes a control system 88 having associated memory 90. In this example, the customized content delivery function 78 is implemented in software and stored in the memory 90. However, the present invention is not limited thereto. The customized content delivery function 78 may be implemented in software, hardware, or a combination thereof. In addition, the central server 70 may include one or more digital storage devices 92 such as one or more hard disk drives or the like. The provider accounts repository 82 and the content repository 80 may be stored in the one or more digital storage devices 92, the memory 90, or a combination thereof. The central server 70 also includes a communication interface 94 communicatively coupling the central server 70 to the network 76 (FIG. 11). Lastly, the central server 70 may include a user interface 96, which may include components such as a display, one or more user input devices, or the like.” Svendsen ’073 at 15:28–46.<br><br>*See also* Svendsen ’073 at Fig. 1 and 4:48–67.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6b] a communications interface operably coupled to the memory; and | The following prior art expressly or inherently discloses and renders obvious “a communications interface operably coupled to the memory.” For example: |

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| |  <br>**FIG. 1**<br>Hughes ’666 at Fig. 1.<br>  <br>**FIG. 2**<br>Hughes ’666 at Fig. 2. |

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| |  <br>**FIG. 3**<br>Hughes ’666 at Fig. 3. |

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| |  <br>**FIG. 6**<br>Hughes ’666 at Fig. 6.<br>  <br>**FIG. 9**<br>Hughes ’666 at Fig. 9. |

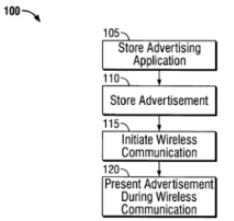
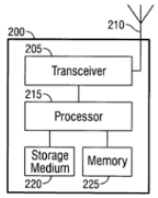
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| |  <br>**FIG. 11**<br>Hughes ’666 at Fig. 11.<br>  <br>**FIG. 13**<br>Hughes ’666 at Fig. 13. |

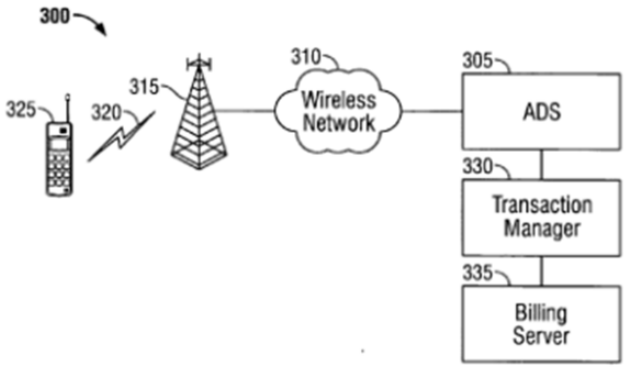
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| |  <br>**FIG. 14**<br>Hughes ’666 at Fig. 14.<br>“As used herein, the terms “component,” “system” and the like are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on computer and the computer can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.” Hughes ’666 at [0028].<br>“Furthermore, the disclosed subject matter may be implemented as a system, method, apparatus, or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof to control a computer or processor based device to implement aspects detailed herein. The term “article of manufacture” (or alternatively, “computer program product”) as used herein is intended to encompass a computer program accessible from any computer-readable device, carrier, or media. For example, computer readable media can include but are not limited to magnetic storage devices |

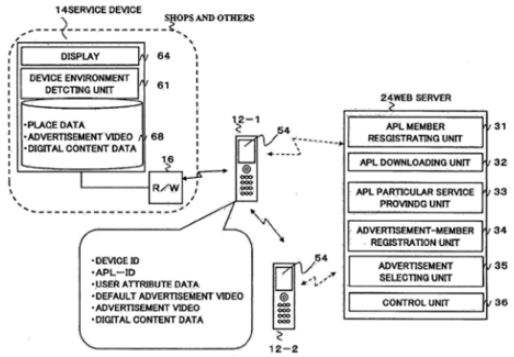
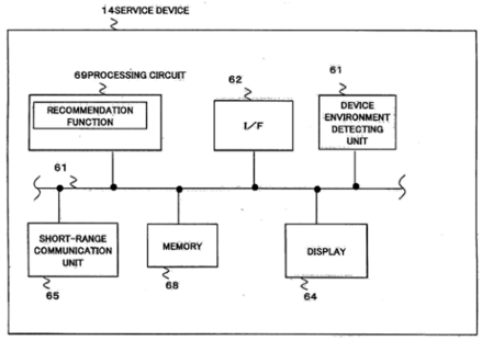
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| | (e.g., hard disk, floppy disk, magnetic strips . . . ), optical disks (e.g., compact disk (CD), digital versatile disk (DVD) . . . ), smart cards, and flash memory devices (e.g., card, stick).” Hughes ’666 at [0030].<br><br>“Additionally it should be appreciated that a carrier wave can be employed to carry computer-readable electronic data such as those used in transmitting and receiving electronic mail or in accessing a network such as the Internet or a local area network (LAN). Of course, those skilled in the art will recognize many modifications may be made to this configuration without departing from the scope or spirit of the claimed subject matter.” Hughes ’666 at [0030].<br><br>“Location information for enrolled mobile devices can be maintained in a device location data store 110. Alternatively, location information for each mobile device can be stored with account information for the mobile device and maintained in the account data store 104. The device location data store 110 (or account data store 104) can maintain a history of previous location information for the mobile devices. The location information can include a timestamp indicating the time at which the location information was generated or recorded.” Hughes ’666 at [0036].<br><br>“Referring now to FIG. 2, an exemplary system for facilitating provision of location based notifications is illustrated. The system can include a set of mobile devices 200, an alert system 202 that manages alerts for the set of mobile devices and a set of terminals 204 that can connect to the alert system 202 to create and manage accounts and alerts associated with the set of mobile devices 200. The set of mobile devices 200 can include any number of mobile devices 206. Mobile devices 206 can include laptops, personal digital assistants (PDAs), cell phones, smartphones, devices with Wi-Fi and the like. Location information for the mobile devices 206 can be provided to the alert system 202.” Hughes ’666 at [0039].<br><br>“The alert system 202 can include a network server 208 (e.g., a HTTP server) and a data store server 210 (e.g., a database server).” Hughes ’666 at [0040].<br><br>“The data store server 210 can manage and support location, account and alert information. The network server 208 can allow users to access account information maintained in the data store server 210.” Hughes ’666 at [0040].<br><br>“The alert system 1100 can include an offer or advertisement interface 1102 that allows vendors to define and purchase advertisement alerts. Vendors can specify text to be included in the advertisement notification, a geographic location or region associated with the advertisement alert and a category or classification for the advertisement alert. Categories can describe the goods or services offered by the vendor. For example, movie |

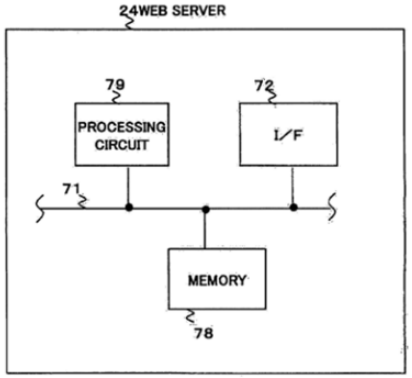
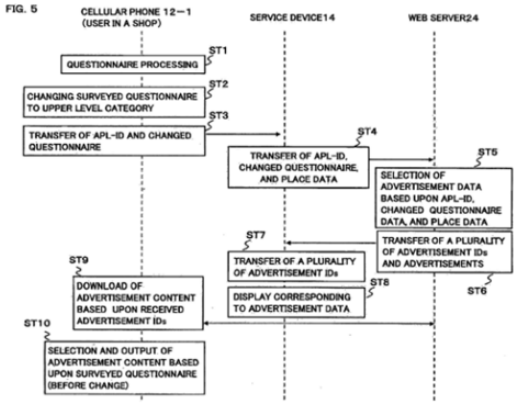
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| | theater advertisements can be classified as entertainment, or more specifically as movies, while an advertisement alert for a restaurant can be classified as dining.” Hughes ’666 at [0088].<br><br>“Additionally, it should be further appreciated that the methodologies disclosed throughout this specification are capable of being stored on an article of manufacture to facilitate transporting and transferring such methodologies to computers. The term article of manufacture, as used, is intended to encompass a computer program accessible from any computer-readable device, carrier, or media.” Hughes ’666 at [0100].<br><br>“While the subject matter has been described above in the general context of computer-executable instructions of a computer program that runs on a computer and/or computers, those skilled in the art will recognize that the system and methods disclosed herein also may be implemented in combination with other program modules. Generally, program modules include routines, programs, components, data structures, etc. that perform particular tasks and/or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the inventive methods may be practiced with other computer system configurations, including single-processor or multiprocessor computer systems, mini-computing devices, mainframe computers, as well as personal computers, hand-held computing devices (e.g., personal digital assistant (PDA), phone, watch . . . ), microprocessor-based or programmable consumer or industrial electronics, and the like. The illustrated aspects may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. However, some, if not all aspects of the systems and methods described herein can be practiced on stand-alone computers. In a distributed computing environment, program modules may be located in both local and remote memory storage devices.” Hughes ’666 at [0101].<br><br>“With reference again to FIG. 13, the exemplary environment 1300 for implementing various aspects of the embodiments includes a mobile device or computer 1302, the computer 1302 including a processing unit 1304, a system memory 1306 and a system bus 1308. The system bus 1308 couples system components including, but not limited to, the system memory 1306 to the processing unit 1304. The processing unit 1304 can be any of various commercially available processors. Dual microprocessors and other multi-processor architectures may also be employed as the processing unit 1304.” Hughes ’666 at [0102].<br><br>“The system memory 1306 includes read-only memory (ROM) 1310 and random access memory (RAM) 1312. A basic input/output system (BIOS) is stored in a non-volatile memory 1310 such as ROM, EPROM, EEPROM, which BIOS contains the basic routines that help to transfer information between elements within the computer 1302, such as during start-up. The RAM 1312 can also include a high-speed RAM such as static RAM for caching data.” Hughes ’666 at [0103]. |

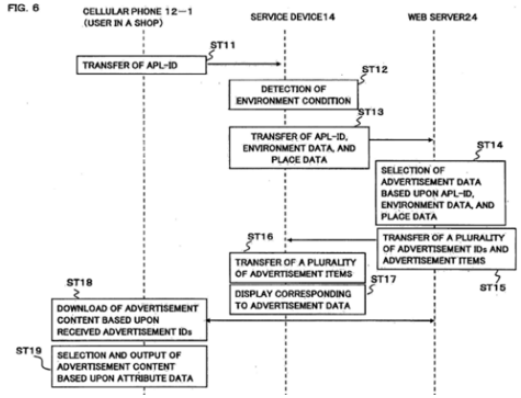
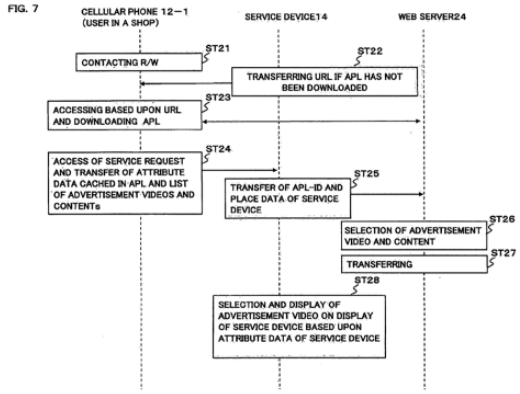
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| | “The computer or mobile device 1302 further includes an internal hard disk drive (HDD) 1314 (e.g., EIDE, SATA), which internal hard disk drive 1314 may also be configured for external use in a suitable chassis (not shown), a magnetic floppy disk drive (FDD) 1316, (e.g., to read from or write to a removable diskette 1318) and an optical disk drive 1320, (e.g., reading a CD-ROM disk 1322 or, to read from or write to other high capacity optical media such as the DVD). The hard disk drive 1314, magnetic disk drive 1316 and optical disk drive 1320 can be connected to the system bus 1308 by a hard disk drive interface 1324, a magnetic disk drive interface 1326 and an optical drive interface 1328, respectively. The interface 1324 for external drive implementations includes at least one or both of Universal Serial Bus (USB) and IEEE 1194 interface technologies. Other external drive connection technologies are within contemplation of the subject systems and methods.” Hughes ’666 at [0104].<br><br>“The drives and their associated computer-readable media provide nonvolatile storage of data, data structures, computer-executable instructions, and so forth. For the computer 1302, the drives and media accommodate the storage of any data in a suitable digital format. Although the description of computer-readable media above refers to a HDD, a removable magnetic diskette, and a removable optical media such as a CD or DVD, it should be appreciated by those skilled in the art that other types of media which are readable by a computer, such as zip drives, magnetic cassettes, flash memory cards, cartridges, and the like, may also be used in the exemplary operating environment, and further, that any such media may contain computer-executable instructions for performing the methods for the embodiments of the data management system described herein.” Hughes ’666 at [0105].<br><br>“A number of program modules can be stored in the drives and RAM 1312, including an operating system 1330, one or more application programs 1332, other program modules 1334 and program data 1336. All or portions of the operating system, applications, modules, and/or data can also be cached in the RAM 1312. It is appreciated that the systems and methods can be implemented with various commercially available operating systems or combinations of operating systems.” Hughes ’666 at [0106].<br><br>“A user can enter commands and information into the computer 1302 through one or more wired/wireless input devices, e.g., a keyboard 1338 and a pointing device, such as a mouse 1340. Other input devices (not shown) may include a microphone, an IR remote control, a joystick, a game pad, a stylus pen, touch screen, or the like. These and other input devices are often connected to the processing unit 1304 through an input device interface 1342 that is coupled to the system bus 1308, but can be connected by other interfaces, such as a parallel port, an IEEE 1194 serial port, a game port, a USB port, an IR interface, etc. A display device 1344 |

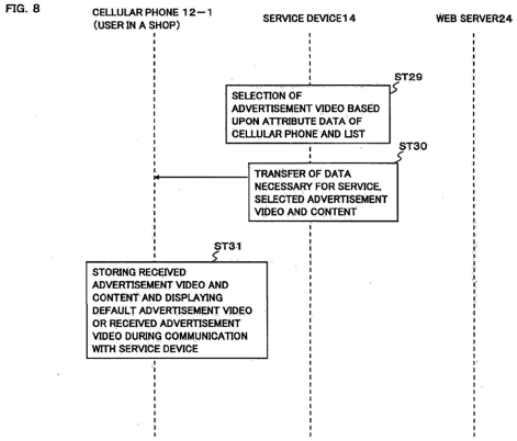
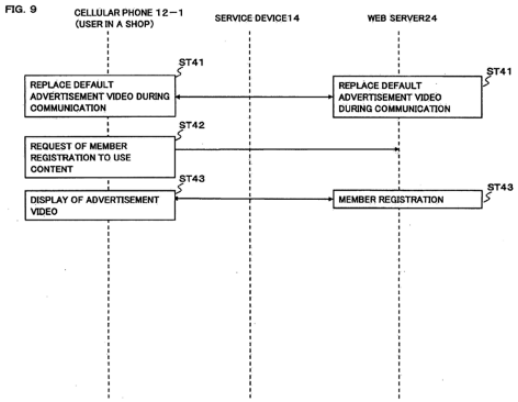
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| | can be used to provide a set of group items to a user. The display devices can be connected to the system bus 1308 via an interface, such as a video adapter 1346.” Hughes ’666 at [0107].<br><br>“FIG. 14 is a schematic block diagram of a sample-computing environment 1400 with which the systems and methods described herein can interact. The system 1400 includes one or more client(s) 1402. The client(s) 1402 can be hardware and/or software (e.g., threads, processes, computing devices). The system 1400 also includes one or more server(s) 1404. Thus, system 1400 can correspond to a two-tier client server model or a multi-tier model (e.g., client, middle tier server, data server), amongst other models. The server(s) 1404 can also be hardware and/or software (e.g., threads, processes, computing devices). One possible communication between a client 1402 and a server 1404 may be in the form of a data packet adapted to be transmitted between two or more computer processes. The system 1400 includes a communication framework 1406 that can be employed to facilitate communications between the client(s) 1402 and the server(s) 1404. The client(s) 1402 are operably connected to one or more client data store(s) 1408 that can be employed to store information local to the client(s) 1402. Similarly, the server(s) 1404 are operably connected to one or more server data store(s) 1410 that can be employed to store information local to the servers 1404.” Hughes ’666 at [0113].<br><br>  <br>FIG. 1<br><br>  <br>FIG. 2 |

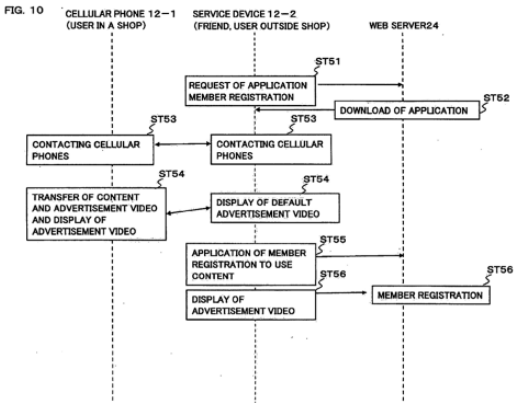
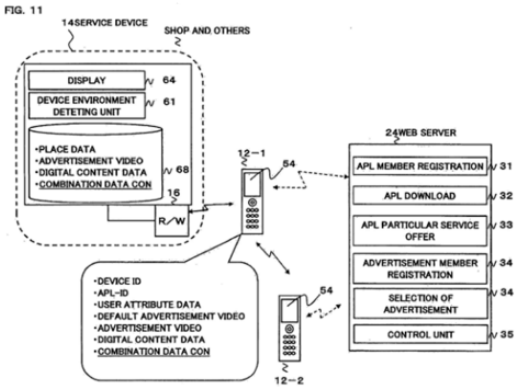
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| | Macaluso ’238 at FIG. 2.<br>  <br><br>FIG. 3<br>Macaluso ’238 at FIG. 3.<br>“FIG. 2 is a block diagram of a mobile phone 200 that may be used in connection with the described techniques. The mobile phone 200 includes a transceiver 205 connected to an antenna 210 for communicating voice and data to and from a remote server, wireline telephone connection, and/or another mobile device through a wireless communication system in accordance with conventional techniques. For example, the wireless communication system may be a CDMA, GSM, or UMTS network, or any other type of mobile network. The transceiver 205 is connected to a processor 215 that controls the operation of the mobile phone 200, including the operation of the transceiver 205. A storage medium 220, which may be removable, read-only, or read/write media and may be magnetic-based, optical-based, semiconductor-based media, or a combination of these, may store operating system software for the mobile phone 200. A memory 225 may store additional, less vital information, such as applications that may be loaded into the mobile phone 200, including an application for displaying advertisements on the mobile phone 200. In addition, a cache containing one or more advertisements may be stored in the memory 225. Both the memory 225 and the storage medium 220 are connected to the processor 215. The processor 215 may operate in accordance with software, applications, or other instructions stored in the memory 225 and/or the storage medium 220.” Macaluso ’238 at [0025]. |

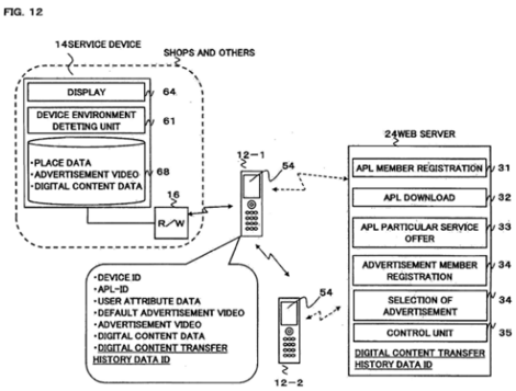
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| | FIG. 1<br>  <br><br>Kinoshita ’866 at Fig. 1.<br>FIG. 3<br>  <br><br>Kinoshita ’866 at Fig. 3. |

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| | FIG. 4<br>  <br><br>Kinoshita ’866 at Fig. 4.<br>  <br><br>Kinoshita ’866 at Fig. 5. |

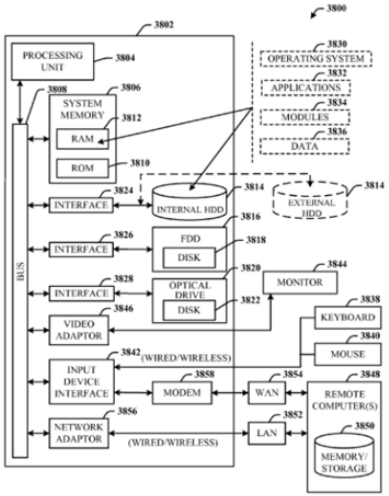
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| |  <br>Kinoshita ’866 at Fig. 6.<br>  <br>Kinoshita ’866 at Fig. 7. |

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| |  <br>Kinoshita ’866 at Fig. 8.<br>  <br>Kinoshita ’866 at Fig. 9. |

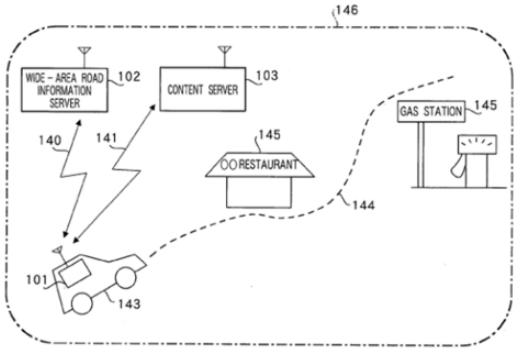
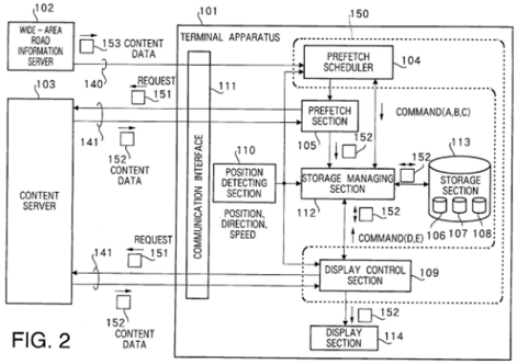
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| |  <br>Kinoshita ’866 at Fig. 10.<br>  <br>Kinoshita ’866 at Fig. 11. |

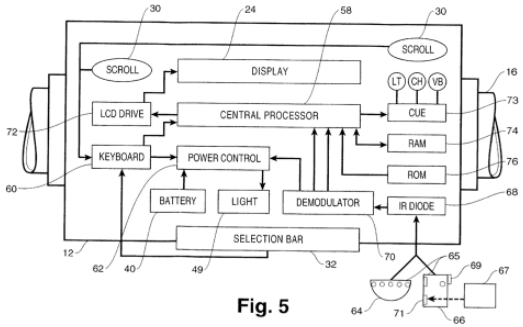
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| | FIG. 12<br>  <br><br>Kinoshita ’866 at Fig. 12.<br>“The first aspect of the present invention is a service providing method using a mobile communication device having a short-range communication function, comprising the steps of: a first step in which the mobile communication device transfers user's or the mobile communication device's attribute data stored in the mobile communication device to a service processing device by performing short-range communication with the service processing device installed at a predetermined place.” Kinoshita ’866 at [0009].<br>“The second aspect of the present invention is a service processing device comprising: an interface that performs short-range communication with a mobile communication device directly or indirectly; a memory that stores place data; and a controller that receives attribute data of a user or user's mobile communication device from user's mobile communication device, transfers the attribute data and the place data read out from the memory to the server, and performs announcement based upon recommendation data corresponding to the place data received from the server.” Kinoshita ’866 at [0010].<br>“The third aspect of the present invention is a mobile communication device for performing short-range-communication with a service processing device installed at predetermined place, the mobile communication device comprising: a short-range communication interface that performs short-range-communication with the service processing device; a memory that stores attribute data of a user or his mobile communication device; and a controller that transfers the attribute data read out from the memory to the service processing device, receives recommendation data associated with the attribute data and a place of the service processing device, and performs announcement according to the recommendation data.” Kinoshita ’866 at [0011]. |

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| | “The fourth aspect of the present invention is a server for providing information associated with a mobile communication device that performs short-range communication with a service processing device installed at a predetermined place, the server comprising: an interface that receives attribute data of a user or his mobile communication device and place data of a place where the service processing device is installed from the mobile communication device or the service processing device; a memory that stores recommendation data which is associated with the attribute data and the place data; and a controller that reads out, from the memory, the recommendation data which is associated with the attribute data received by the interface and the place data, and transfers the recommendation data to the mobile communication device or the service processing device through the interface.” Kinoshita ’866 at [0012].<br><br>“The cellular phones 12-1 and 12-2 can perform short-range communication with the R/W device 16 at shops or venues where the R/W devices are installed if the cellular phone is put near the R/W device.” Kinoshita ’866 at [0029].<br><br>“The cellular phones 12-1 and 12-2 include an IC chip 55 that performs short-range communication by using a non-contact method, and the IC chip is given ICID that is unique identification information. In the present embodiment, for example, the cellular phones 12-1 and 12-2 perform short-range communication by using the IC chip 55. The IC chip 55 is a short-wave-resistant module. The IC chip 55 is removably or fixedly built in the cellular phones 12-1 and 12-2.” Kinoshita ’866 at [0032].<br><br>“The service device 14 includes, for example, a device environment detecting unit 61, an interface 62, a display 64, a short-range communication unit 65, a memory 68, and a processing circuit 69. ” Kinoshita ’866 at [0037].<br><br>“The service device 14 is installed at a place such as a shop, and communicates with the cellular phone 12-1 via the R/W device 16. ” Kinoshita ’866 at [0037].<br><br>“The R/W device 16 performs short-range communication with the cellular phone 12-1. Standards of protocol used in short-range communication include, for example, NFC (Near Field Communication), ISO/IEC 14443, Bluetooth, UWB (Ultra Wide Band), and IEEE802.11b. A method of the short-range communication in the present embodiment may be a contact method, or a non-contact method. The R/W device 16 is installed at a shop and other places.” Kinoshita ’866 at [0039].<br><br>“Referring to FIG. 4, the Web server 24 includes, for example, an interface 62, a memory 68, and a processing circuit 69.” Kinoshita ’866 at [0041]. |

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| | “When a user goes to a shop or a station, he can approach the R/W device 16 installed there and make the cellular phone 12-1 contact with the R/W device 16. By doing this, the R/W device 16 can communicate with the cellular phone 12-1 through short-range communication.” Kinoshita ’866 at [0089].<br><br>“The cellular phone 12-1 communicates with the service device 14 via the R/W device 16 by using the function of the application program APL. At this time, the cellular phone 12-1 transfers attribute data and a list of advertisement videos and digital content data, which are stored in the memory 58 of FIG. 2, to the service device 14, as well as given service requests. The service device 14 transfers the above things received from the cellular phone 12-1 to the memory 68 of FIG. 3. The attribute data includes, for example, user's age, gender, and preferences.” Kinoshita ’866 at [0096].<br><br>  <br><br>**FIG. 38**<br>Smith ’558 at Fig. 38.<br><br>“FIG. 12 illustrates components for creating mapping layers. As illustrated, a client web application 1202 communicates with a server farm 1204 through the Internet, for example, to request mapping information.” Smith ’558 at [0153].<br><br>“Generally, program modules include routines, programs, components, data structures, etc., that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate |

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| | that the inventive methods can be practiced with other computer system configurations, including single-processor or multiprocessor computer systems, minicomputers, mainframe computers, as well as personal computers, hand-held computing devices, microprocessor-based or programmable consumer electronics, and the like, each of which can be operatively coupled to one or more associated devices.<br><br>The illustrated aspects may also be practiced in distributed computing environments where certain tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules can be located in both local and remote memory storage devices.<br><br>A computer typically includes a variety of computer-readable media. Computer-readable media can be any available media that can be accessed by the computer and includes both volatile and nonvolatile media, removable and non-removable media. By way of example, and not limitation, computer-readable media can comprise computer storage media and communication media. Computer storage media includes both volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CD-ROM, digital video disk (DVD) or other optical disk storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the computer.<br><br>Communication media typically embodies computer-readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism, and includes any information delivery media. The term “modulated data signal” means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of the any of the above should also be included within the scope of computer-readable media.” Smith ’558 at [0249]–[0252].<br><br>“When used in a LAN networking environment, the computer 3802 is connected to the local network 3852 through a wired and/or wireless communication network interface or adapter 3856. The adaptor 3856 may facilitate wired or wireless communication to the LAN 3852, which may also include a wireless access point disposed thereon for communicating with the wireless adaptor 3856.” Smith ’558 at [0261]. |

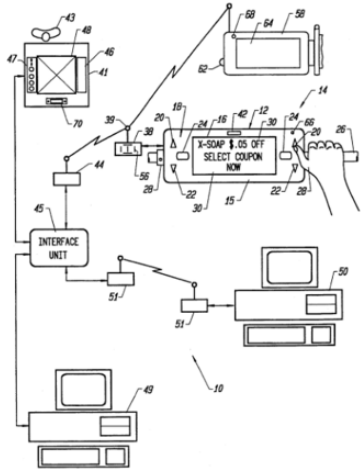
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| | “When used in a WAN networking environment, the computer 3802 can include a modem 3858, or is connected to a communications server on the WAN 3854, or has other means for establishing communications over the WAN 3854, such as by way of the Internet.” Smith ’558 at [0262].<br>  <br><br>FIG. 1<br>Sato ’965 at Fig. 1.<br>  <br><br>FIG. 2<br>Sato ’965 at Fig. 2. |

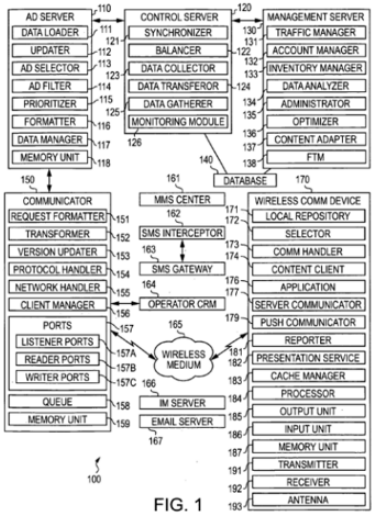
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| | “Terminal apparatus 101 is, for example, a car navigation system with communication function, PDA (Personal Data Assist), notebook personal computer or the like. Further, terminal apparatus 101 may be a portable communication terminal such as a cellular telephone and PHS.” Sato ’965 at [0045].<br><br>“Terminal apparatus 101 is connected to wide-area road information server 102 by wireless communication path 140. Terminal apparatus 101 is further connected to content server 103 by wireless communication path 141.” Sato ’965 at [0049].<br><br>“Wide-area road information server 102 and content server 103 are, for example, server computers with arbitrary configurations.” Sato ’965 at [0050].<br><br>“It is not indispensable that terminal apparatus 101 is directly connected to wide-area road information server 102 via wireless communication path 140. Any network (for example, internet) and/or wired communication path may be present between terminal apparatus 101 and wide-area road information server 102 in addition to wireless communication path 140. The same situation may exist between terminal apparatus 101 and content server 103.” Sato ’965 at [0053].<br><br>“Communication interface 111 communicates with wide-area road information server 102 via wireless communication path 140, and further communicates with content server 103 via wireless communication path 141.” Sato ’965 at [0058].<br><br>  <br><br>Fig. 5<br><br>Begum ’880 at Fig. 5.<br><br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the |

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| | advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br><br>“The electronic shopping cart handle of the preferred embodiment includes an internal operating system that enables the device to incorporate efficient power management in order to maximize the life of the power pack that is provided for each device. ” Begum ’880 at 4:10–14.<br><br>“The invented device is a dedicated appliance computer that is capable of being reprogrammed in order to add additional features to the device as users become more sophisticated. Such features as the automatic display of advertisements at select store locations and the global updating of displayable data by wireless transmissions are described in the referenced application.” Begum ’880 at 4:53–59.<br><br>“The user interface is designed to allow the user to access all of the available data including stored promotional graphics by a control system that is intuitive. Furthermore, the hybrid system devised for automatic display of promotional graphics, is designed to incorporate features that are beneficial in facilitating automatic update of the promotional advertisements.” Begum ’880 at 4:65–5:4.<br><br>“Referring to the schematic illustration of FIG. 5, the display unit 12 contains a central processor 58 which is an integrated circuit chip for programs to control the system operation. The processor receives and directs data for operation of the display unit, and is preferably a state of the art chip, such as an Intel 286 or more expensive 386 chip. Although more advanced logic circuits are not necessary for the contemplated informational and operational tasks involved in the shopping cart handle, advanced state of the art processors can be used to advantage for power management. The processor 58 connects to a standard keyboard chip 60, which as noted, may be integrated into the processor chip. The keyboard chip 60 includes the circuity necessary to interpret signals from the scroll buttons 30 or the selection bar 32.” Begum ’880 at 8:10–24.<br><br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47. |

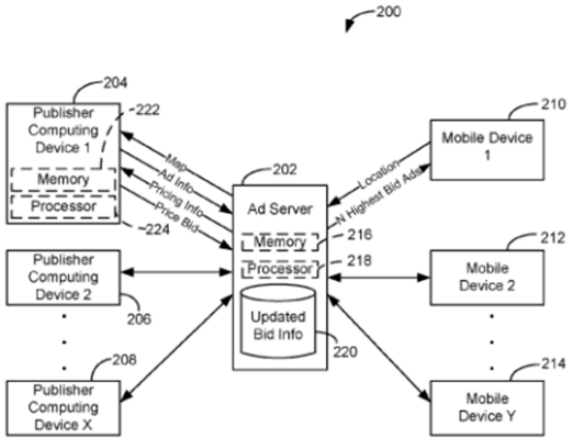
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| | “The trigger and data signals are demodulated in a converter circuit 70 and passed to the central processor 58 for reprogramming the memory or activating retrieval of memory packets for display of advertising information in the display screen 24 under control of the LCD driver and controller circuit 72.” Begum ’880 at 8:48–53.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“The data signal is a digital signal that includes both the product control signals and the screen graphic signal. The product control signals include data about the promotion that is not in the screen graphic and that does not appear on the display screen 24 of the display unit 12. This data may include the universal product identification number, the date or iteration number of the promotional graphic, and, the identification number of the transceiver unit, which is useful in tracking the path of a shopper through the market area. The screen graphic signal contains the digitized data that is received by the display unit 12 and formatted for display on the display screen. For example, a compressed screen graphic signal must be decompressed by the central processor before it is relayed to the LCD controller and driver 72. ” Begum ’880 at 9:16–29.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“The trigger and data signals, together with a converted D.C. power potentials are delivered to the power control circuit for system wakeup, and trickle feed of energy to the battery pack 40. The trigger signal is passed to the cue output circuit 73, which may be one or more of an audible chime, a handle vibration or a light. Certain IR triggers 66 at the store perimeter may not only trigger an audible alarm in the display unit 12, |

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| | but include a sound or ultrasound receiver for activating an alarm in the store office when a select frequency emitted by the display unit is detected.” Begum ’880 at 9:56–65.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>“The product control signals may be utilized in this compare process for rapidly locating the presence or absence of a particular promotional screen graphic in memory and initiating display of either the screen graphic in memory or the screen graphic formatted from the screen graphic signal transmitted by the transceiver unit 65. In this manner, the shopping carts that are in use, are continually updated as they pass a transceiver unit 65, such that even if an outdated ad is stored in memory, the updated ad will be presented once the shopper has arrived at the location of the promoted item. Although this system has the minor drawback of potentially storing an outdated promotional graphic in memory that is accessible by a shopper during review of the product promotion file using the display unit in an interactive mode, the system is self-correcting at the promoted product location.” Begum ’880 at 10:16–31.<br><br>“The random access memory (RAM) 74 and read only memory (ROM) 76 store the systems operations data and reprogrammable user data for displaying store directory and product information in the display screen 24.” Begum ’880 at 10:32–35.<br><br>“Although the devised shopping cart display handle will have the capabilities of a personal computer, a dedicated informational format, as schematically illustrated in FIGS. 6-10, is incorporated to ease user familiarization and encourage adoption as a shopping aid.” Begum ’880 at 10:37–41.<br><br>*See also* Begum ’880 at Abstract, Fig. 1, Fig. 9, 1:60–2:5, 4:33–38, 5:65–6:4, and 9:12–16. |

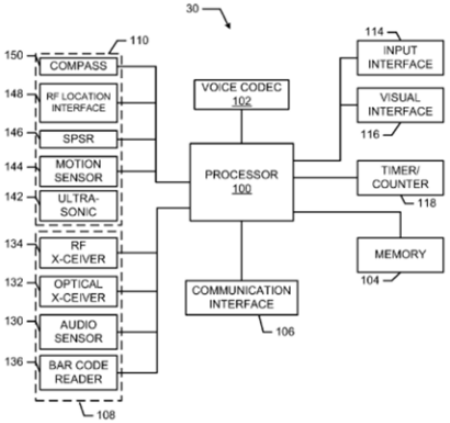
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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“The customer display device 12 is part of a portable communication unit 14 having a control panel 15 with a display screen 16 and easily operated user controls 18, such as complementary up and down scroll buttons 20, 22, and select buttons 24” Begum ’606 at 4:17–21. |

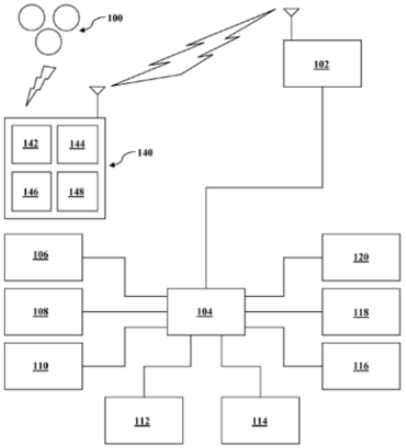
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| |  <br>FIG. 1<br>Levkovitz ’852 at Fig. 1.<br>“In some embodiments, for example, the server may include a memory unit to store a plurality of content items from which the content item is selected.<br>In some embodiments, for example, the memory unit may include a volatile memory or a non-volatile memory.<br>In some embodiments, for example, the server is to periodically copy the content of the volatile memory into a non-volatile memory.” Levkovitz ’852 at [0012]–[0014].<br>“FIG. 1 schematically illustrates a block diagram of a wireless communication system 100 able to deliver content in accordance with an embodiment of the invention. System 100 may include, for example, an ad server 110, a control server 120, a management server 130, a database 140, a communicator 150, and one or more wireless communication devices, e.g., a wireless communication device 170.” Levkovitz ’852 at [0094].<br>“Ad server 110 may include one or more servers, or a “server farm”, which may be operatively connected to communicator 150. Ad server 110 may process content requests stored in the queue 158 of communicator 150, e.g., in accordance with a pre-defined order or algorithm.” Levkovitz ’852 at [0098]. |

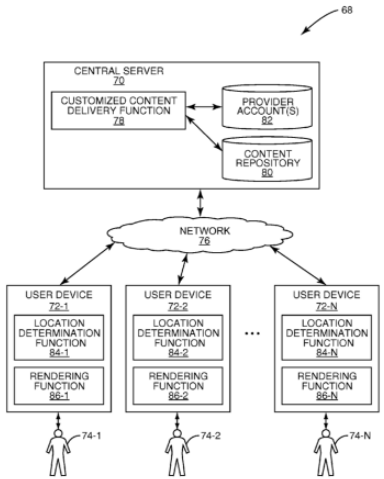
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| | “In one embodiment, memory unit 118 may include a non-volatile memory, for example, a long term memory unit, a disk, a hard disk drive, or the like. In another embodiment, memory unit 118 may include a volatile memory, for example, a Random Access Memory (RAM), a Dynamic RAM (DRAM), a Synchronous DRAM (SD-RAM), a Flash memory, a cache memory, a buffer, a stack, a short term memory unit, or the like.” Levkovitz ’852 at [0125].<br><br>“Management server 130, control server 120, ad server 110, communicator 150, and/or other components of system 100, may be implemented, for example, using one or more computing platforms or computing devices, e.g., one or more computers or servers including a processor, a memory unit, a storage unit, an input unit, an output unit, a transmitter, a receiver, an antenna, a power source, an Operating System, software applications, and/or other suitable software components and/or hardware components.” Levkovitz ’852 at [0173].<br><br>“Device 170 may communicate with communicator 150 and/or ad sever 110 using wireless medium 165, for example, in accordance with one or more standards or protocols, e.g., Transmission Control Protocol (TCP), Internet Protocol (IP), TCP/IP, Session Initiation Protocol (SIP), Signaling System 7 (SS7), Push protocol, SMS protocol, MMS protocol, IM protocol, Code-Division Multiple Access (CDMA), Wideband CDMA (W-CDMA), Time-Division Multiple Access (TDMA), Post Office Protocol 3 (POP3), Internet Message Access Protocol IMAP), Simple Mail Transfer Protocol (SMTP), User Datagram Protocol (UDP), High-Speed Circuit-Switched Data (HSCSD), Wireless Village Protocol, XMPP Protocol, PAM/Parlay Protocol, SMPP Protocol, UCP Protocol, CIMD2 Protocol, CAMEL Protocol, SIGTRAN Protocol, or the like.” Levkovitz ’852 at [0174].<br><br>“The mobile devices 30 within the m-commerce environment 8 can be implemented with any portable communication device capable of over-the-air or through-the-air radio frequency (“RF”) communication, as understood by those skilled in the art, with the m-commerce server 10. For example, the mobile device 30 can be a mobile telephone, an email communication device (e.g., such as those sold under the trademark BLACKBERRY), a personal digital assistant (PDA), or other mobile device. Regardless of the embodiment, each of the mobile devices 30 preferably includes a display 32 (e.g., a liquid crystal display (“LCD”)) capable of displaying the textual and/or graphical e-commerce content distributed by the m-commerce server 10.” Sanctis ’837 at [0030].<br><br>“Also, as shown in FIG. 7, and as will be understood by those skilled in the art, the mobile devices 30 can download client application software 41 to be stored in memory, e.g., flash memory 40, of the mobile device 30 and can include mobile device enhancement program product 42 or software and application program |

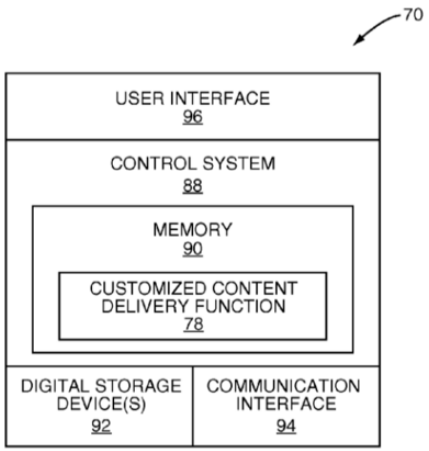
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| | interface program product or software from an input/output having download 48, e.g., wireless or hardwire, capabilities associated with the mobile device 30 via a communication link 26 with another computer or the server 10, or be provided with client application program product or software upon purchase of the mobile device, to enhance client communication capabilities to the m-server 10, to enhance GUI displays to the user, and to enhance other features 44 for the user as a set of program instruction as understood by those skilled in the art and as described herein, such as mobile alerts, make purchase consummation, gathering account information, viewing detail on product, viewing past orders, shipment tracking, and security encryption.” Sanctis ’837 at [0038].<br>  <br><br>FIG. 2<br>Bussmann ’294 at FIG. 2.<br>“FIG. 2 shows an example embodiment of a location-based advertising use environment 200. Use environment 200 comprises an advertising server 202 in communication with a plurality of advertising publisher computing devices 204, 206, 208, and also with a plurality of devices 210, 212, 214 that request and receive advertising content from the advertising server 202. In the depicted embodiment, the number of advertising publisher client computing devices in communication with the advertising server 202 is illustrated as a generic number X, and the number of requesting/receiving devices is illustrated as a generic number Y, |

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| | indicating that any suitable number of advertising publisher client computing devices and requesting/receiving devices may be in communication with the advertising server 202 at any time.<br><br>The advertising server 202 comprises memory 216 and a processor 218, wherein the memory 216 comprises instructions stored thereon that are executable by the processor 218 to perform the various methods of operating an advertising server disclosed herein. The advertising server 202 further comprises a database 220 that stores various items of information related to the provision of location-based advertising services. For example, the database 220 may store user account information related to the advertising publishers and/or consumer devices that utilize the system. The database 220 also may store advertising content provided by each advertising publisher, and bid information related to the advertising content. The term “updated bid information” may be used herein to describe such current bid information, as bids may be submitted and/or modified by advertising publishers on a continuous, rolling basis. The updated bid information may include such information as the geographic locations and time intervals selected by each advertising publisher for the distribution of advertising content, category information related to the type of advertising content provided by each advertising publisher and to the specific distribution services requested by the advertising publisher, pricing information related to the price paid by each advertising publisher for a desired transaction type (per view, per click-through, etc.), payment information related to the method of payment used by each advertising publisher (pre-paid credits, debit/credit card info, etc.), or any other suitable information.” Bussmann ’294 at [0012]–[0013]. |

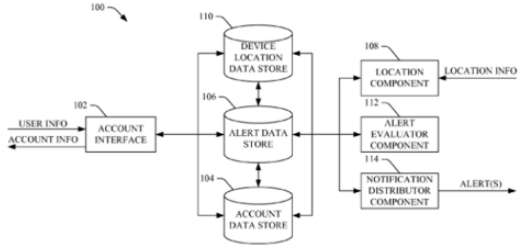
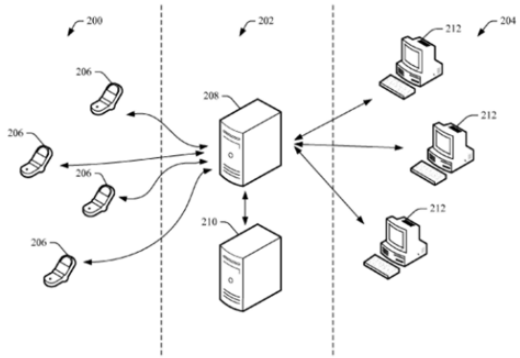
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| | FIG. 2<br>  <br><br>Mello ’479 at FIG. 2.<br>“FIG. 2 is a detailed block diagram of an example implementation of the PPM 30 of FIG. 1. As discussed above, the PPM 30 may be used to monitor the use of a location-based web service application by a monitored person (e.g., the monitored person 32 of FIG. 1). It may also be used to collect location information and/or motion information associated with the use of the location-based web application. In general, the PPM 30 includes electronic components configured to detect and/or collect media monitoring information, location information, and/or motion information, and to communicate the information to the central facility 60 of FIG. 1 for subsequent analyses. As shown in FIG. 2, the PPM 30 includes a processor 100, a voice coder/decoder (CODEC) 102, a memory 104, a communication interface 106, a plurality of media monitoring sensors 108, a plurality of location and motion sensors 110, an input interface 114, a visual interface 116 and a timer/counter 118, all of which are communicatively coupled as shown.” Mello ’479 at [0036].<br>“It is to be understood that the example machine accessible instructions of the flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be executed by a processor, a controller and/or any other suitable processing device. For example, the example machine accessible instructions of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be embodied in coded instructions stored on a tangible medium such as |

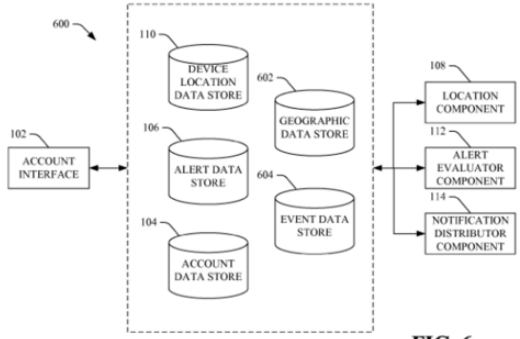
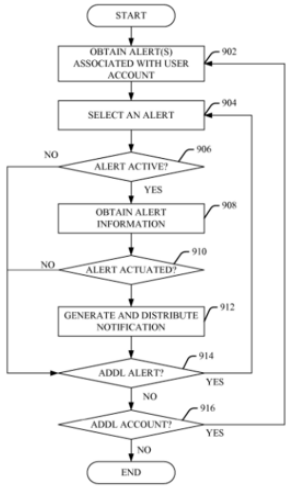
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| | a flash memory, or random access memory (RAM) associated with a processor. Alternatively, some or all of the example flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be implemented using an application specific integrated circuit (ASIC), a programmable logic device (PLD), a field programmable logic device (FPLD), discrete logic, hardware, firmware, etc. ” Mello ’479 at [0118].<br>  <br><br>FIG. 1<br>Busch ’815 at Fig. 1.<br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, integration of location data with customer relationship management systems and systems to determining retail business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br>“With reference to FIG. 1 GPS satellites 100 operate to determine the location of a mobile device 140 that has a number of features available based upon the location data. The mobile device 140 provides a user interface 142, GPS receiver 144, CPU and memory 146, and radio 148. Examples of mobile device 140 include cellular |

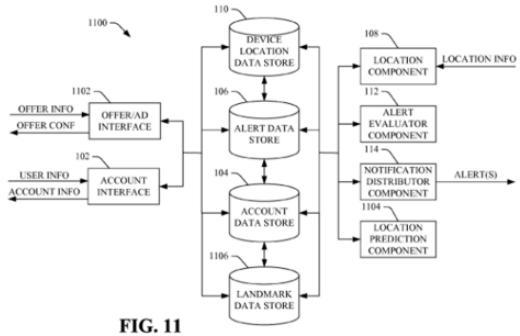
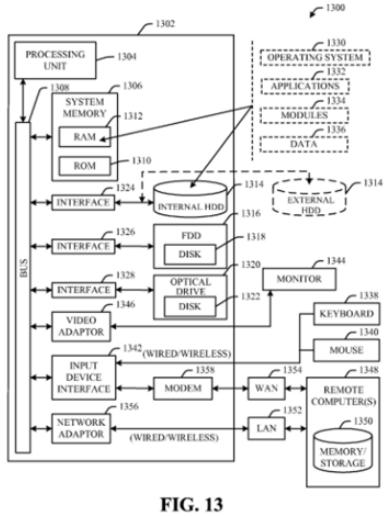
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| | phones, personal digital assistants, pagers, laptop computers, automobile navigation systems, among others. Mobile device 140 receives GPS signals and determines its location. For purposes of illustration and without limitation, this may occur solely through using the GPS system, or may occur by using a filter to combine location data from the GPS system and another system such as cell-tower-triangulation in order to obtain a more accurate location. The mobile device 140 is wirelessly coupled to an access point 102 with a built in radio 148. The access point 102 is coupled to the Internet 104 or other network. A number of other systems or services are available to the device over the Internet 104 or other network optionally including but not limited to an inventory system 106, advertisement system 108, search engine 110, mapping, business location, GIS, and routing database 112, user information database 114, advertiser information database 116, payment system 118, and phone system 120.” Busch ’815 at [0334].<br>  <br><br>FIG. 11<br>Svendsen ’073 at Fig. 11. |

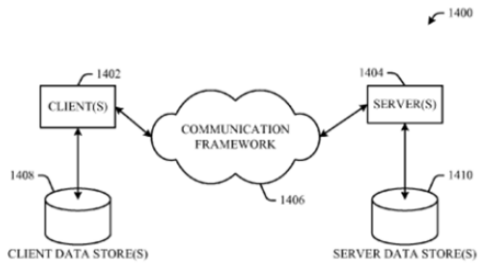
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| |  <br>***FIG. 13***<br>Svendsen ’073 at Fig. 13.<br>“FIG. 11 illustrates a system 68 for customized content delivery according to one embodiment of the present invention. In general, the system 68 includes a central server 70 and a number of user devices 72-1 through 72-N having associated users 74-1 through 74-N. The central server 70 and the user devices 72-1 through 72-N are enabled to communicate via a network 76. The network 76 may be any type of Wide Area Network (WAN), Local Area Network (LAN), or the like, or any combination thereof. In addition, the network 76 may include wired components, wireless components, or both wired and wireless components. As an example, the network 76 may be the Internet.” Svendsen ’073 at 13:27–38.<br>“The central server 70 includes a customized content delivery function 78, which may be implemented in software, hardware, or a combination thereof.” Svendsen ’073 at 13:39–41.<br>“In addition, the central server 70 may include a content repository 80. For each of a number of content providers, the content repository 80 may store the content items or references to the content items provided by each of the content providers. As discussed above, the content providers may be advertisers, media content providers, or the like. As such, the content items provided by the content providers may be advertisements, media items, or the like. Lastly, the central server 70 hosts or otherwise has access to a provider accounts |

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| | repository 82, which includes a provider account, or account, for each of the content providers.” Svendsen ’073 at 13:41–52.<br><br>“FIG. 13 is a block diagram of the central server 70 of FIG. 11 according to one embodiment of the present invention. In general, the central server 70 includes a control system 88 having associated memory 90. In this example, the customized content delivery function 78 is implemented in software and stored in the memory 90. However, the present invention is not limited thereto. The customized content delivery function 78 may be implemented in software, hardware, or a combination thereof. In addition, the central server 70 may include one or more digital storage devices 92 such as one or more hard disk drives or the like. The provider accounts repository 82 and the content repository 80 may be stored in the one or more digital storage devices 92, the memory 90, or a combination thereof. The central server 70 also includes a communication interface 94 communicatively coupling the central server 70 to the network 76 (FIG. 11). Lastly, the central server 70 may include a user interface 96, which may include components such as a display, one or more user input devices, or the like.” Svendsen ’073 at 15:28–46.<br><br>*See also* Svendsen ’073 at Fig. 1 and 4:48–67.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6c] at least one processor operably coupled to the memory and the communications interface, the processor configured to execute a program of instructions, the program of instructions comprising: | The following prior art expressly or inherently discloses and renders obvious “at least one processor operably coupled to the memory and the communications interface, the processor configured to execute a program of instructions, the program of instructions.” For example: |

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| |  <br>**FIG. 1**<br>Hughes ’666 at Fig. 1.<br>  <br>**FIG. 2**<br>Hughes ’666 at Fig. 2. |

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| |  <br>**FIG. 6**<br>Hughes ’666 at Fig. 6.<br>  <br>**FIG. 9**<br>Hughes ’666 at Fig. 9. |

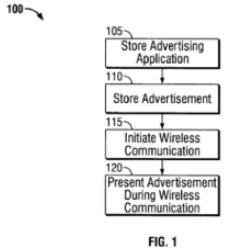
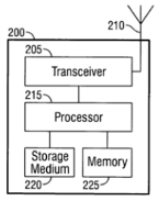
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| |  <br>**FIG. 11**<br>Hughes ’666 at Fig. 11.<br>  <br>**FIG. 13**<br>Hughes ’666 at Fig. 13. |

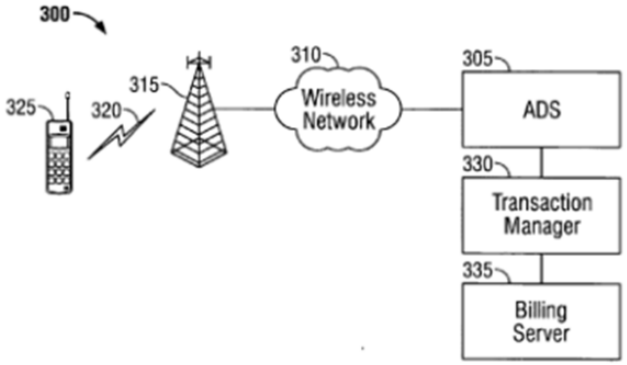
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| |  <br>**FIG. 14**<br>Hughes ’666 at Fig. 14.<br>“As used herein, the terms “component,” “system” and the like are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on computer and the computer can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.” Hughes ’666 at [0028].<br>“Furthermore, the disclosed subject matter may be implemented as a system, method, apparatus, or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof to control a computer or processor based device to implement aspects detailed herein. The term “article of manufacture” (or alternatively, “computer program product”) as used herein is intended to encompass a computer program accessible from any computer-readable device, carrier, or media. For example, computer readable media can include but are not limited to magnetic storage devices |

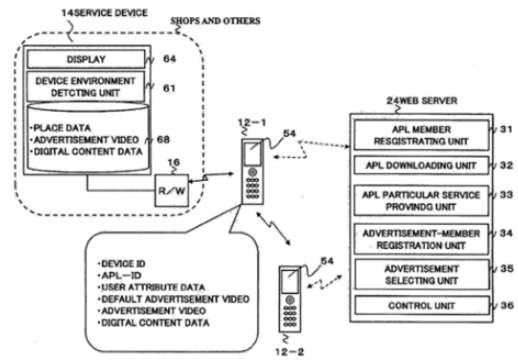
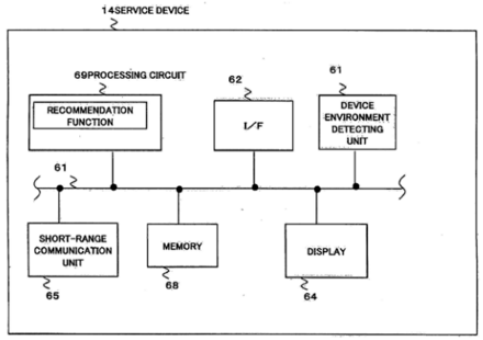
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| | (e.g., hard disk, floppy disk, magnetic strips . . . ), optical disks (e.g., compact disk (CD), digital versatile disk (DVD) . . . ), smart cards, and flash memory devices (e.g., card, stick).” Hughes ’666 at [0030].<br><br>“Location information for enrolled mobile devices can be maintained in a device location data store 110. Alternatively, location information for each mobile device can be stored with account information for the mobile device and maintained in the account data store 104. The device location data store 110 (or account data store 104) can maintain a history of previous location information for the mobile devices. The location information can include a timestamp indicating the time at which the location information was generated or recorded.” Hughes ’666 at [0036].<br><br>“Referring now to FIG. 2, an exemplary system for facilitating provision of location based notifications is illustrated. The system can include a set of mobile devices 200, an alert system 202 that manages alerts for the set of mobile devices and a set of terminals 204 that can connect to the alert system 202 to create and manage accounts and alerts associated with the set of mobile devices 200. The set of mobile devices 200 can include any number of mobile devices 206. Mobile devices 206 can include laptops, personal digital assistants (PDAs), cell phones, smartphones, devices with Wi-Fi and the like. Location information for the mobile devices 206 can be provided to the alert system 202.” Hughes ’666 at [0039].<br><br>“The alert system 202 can include a network server 208 (e.g., a HTTP server) and a data store server 210 (e.g., a database server).” Hughes ’666 at [0040].<br><br>“The data store server 210 can manage and support location, account and alert information. The network server 208 can allow users to access account information maintained in the data store server 210.” Hughes ’666 at [0040].<br><br>“The alert system 1100 can include an offer or advertisement interface 1102 that allows vendors to define and purchase advertisement alerts. Vendors can specify text to be included in the advertisement notification, a geographic location or region associated with the advertisement alert and a category or classification for the advertisement alert. Categories can describe the goods or services offered by the vendor. For example, movie theater advertisements can be classified as entertainment, or more specifically as movies, while an advertisement alert for a restaurant can be classified as dining.” Hughes ’666 at [0088].<br><br>“Additionally, it should be further appreciated that the methodologies disclosed throughout this specification are capable of being stored on an article of manufacture to facilitate transporting and transferring such methodologies to computers. The term article of manufacture, as used, is intended to encompass a computer program accessible from any computer-readable device, carrier, or media.” Hughes ’666 at [0100]. |

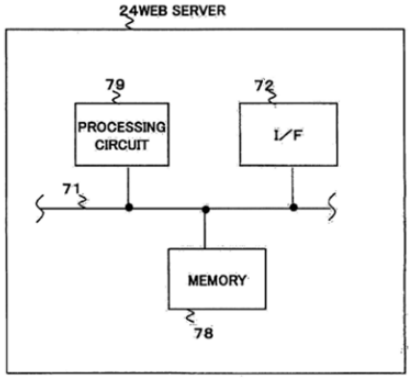
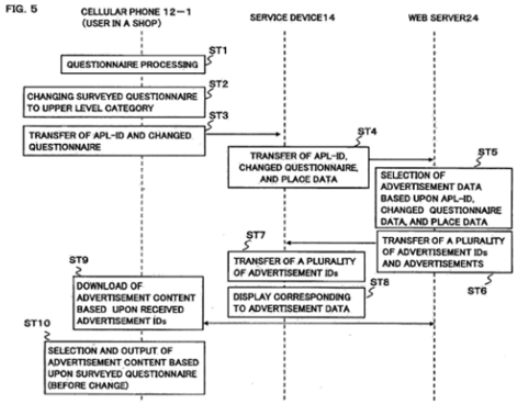
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| | “While the subject matter has been described above in the general context of computer-executable instructions of a computer program that runs on a computer and/or computers, those skilled in the art will recognize that the system and methods disclosed herein also may be implemented in combination with other program modules. Generally, program modules include routines, programs, components, data structures, etc. that perform particular tasks and/or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the inventive methods may be practiced with other computer system configurations, including single-processor or multiprocessor computer systems, mini-computing devices, mainframe computers, as well as personal computers, hand-held computing devices (e.g., personal digital assistant (PDA), phone, watch . . . ), microprocessor-based or programmable consumer or industrial electronics, and the like. The illustrated aspects may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. However, some, if not all aspects of the systems and methods described herein can be practiced on stand-alone computers. In a distributed computing environment, program modules may be located in both local and remote memory storage devices.” Hughes ’666 at [0101].<br><br>“With reference again to FIG. 13, the exemplary environment 1300 for implementing various aspects of the embodiments includes a mobile device or computer 1302, the computer 1302 including a processing unit 1304, a system memory 1306 and a system bus 1308. The system bus 1308 couples system components including, but not limited to, the system memory 1306 to the processing unit 1304. The processing unit 1304 can be any of various commercially available processors. Dual microprocessors and other multi-processor architectures may also be employed as the processing unit 1304.” Hughes ’666 at [0102].<br><br>“The system memory 1306 includes read-only memory (ROM) 1310 and random access memory (RAM) 1312. A basic input/output system (BIOS) is stored in a non-volatile memory 1310 such as ROM, EPROM, EEPROM, which BIOS contains the basic routines that help to transfer information between elements within the computer 1302, such as during start-up. The RAM 1312 can also include a high-speed RAM such as static RAM for caching data.” Hughes ’666 at [0103].<br><br>“The computer or mobile device 1302 further includes an internal hard disk drive (HDD) 1314 (e.g., EIDE, SATA), which internal hard disk drive 1314 may also be configured for external use in a suitable chassis (not shown), a magnetic floppy disk drive (FDD) 1316, (e.g., to read from or write to a removable diskette 1318) and an optical disk drive 1320, (e.g., reading a CD-ROM disk 1322 or, to read from or write to other high capacity optical media such as the DVD). The hard disk drive 1314, magnetic disk drive 1316 and optical disk drive 1320 can be connected to the system bus 1308 by a hard disk drive interface 1324, a magnetic disk drive interface 1326 and an optical drive interface 1328, respectively. The interface 1324 for external drive |

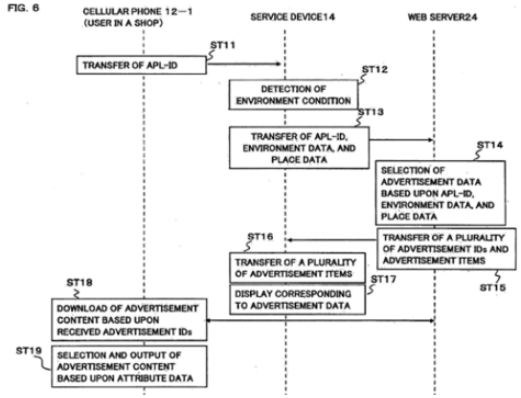
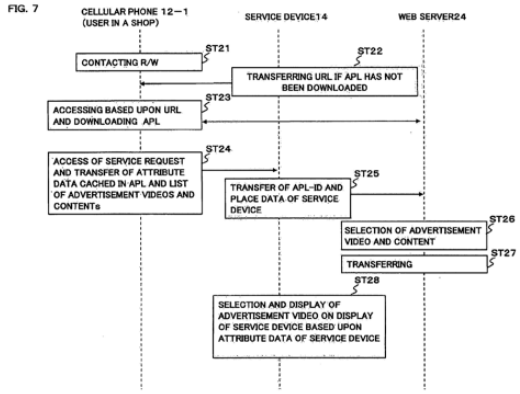
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| | implementations includes at least one or both of Universal Serial Bus (USB) and IEEE 1194 interface technologies. Other external drive connection technologies are within contemplation of the subject systems and methods.” Hughes ’666 at [0104].<br><br>“The drives and their associated computer-readable media provide nonvolatile storage of data, data structures, computer-executable instructions, and so forth. For the computer 1302, the drives and media accommodate the storage of any data in a suitable digital format. Although the description of computer-readable media above refers to a HDD, a removable magnetic diskette, and a removable optical media such as a CD or DVD, it should be appreciated by those skilled in the art that other types of media which are readable by a computer, such as zip drives, magnetic cassettes, flash memory cards, cartridges, and the like, may also be used in the exemplary operating environment, and further, that any such media may contain computer-executable instructions for performing the methods for the embodiments of the data management system described herein.” Hughes ’666 at [0105].<br><br>“A number of program modules can be stored in the drives and RAM 1312, including an operating system 1330, one or more application programs 1332, other program modules 1334 and program data 1336. All or portions of the operating system, applications, modules, and/or data can also be cached in the RAM 1312. It is appreciated that the systems and methods can be implemented with various commercially available operating systems or combinations of operating systems.” Hughes ’666 at [0106].<br><br>“A user can enter commands and information into the computer 1302 through one or more wired/wireless input devices, e.g., a keyboard 1338 and a pointing device, such as a mouse 1340. Other input devices (not shown) may include a microphone, an IR remote control, a joystick, a game pad, a stylus pen, touch screen, or the like. These and other input devices are often connected to the processing unit 1304 through an input device interface 1342 that is coupled to the system bus 1308, but can be connected by other interfaces, such as a parallel port, an IEEE 1194 serial port, a game port, a USB port, an IR interface, etc. A display device 1344 can be used to provide a set of group items to a user. The display devices can be connected to the system bus 1308 via an interface, such as a video adapter 1346.” Hughes ’666 at [0107].<br><br>“FIG. 14 is a schematic block diagram of a sample-computing environment 1400 with which the systems and methods described herein can interact. The system 1400 includes one or more client(s) 1402. The client(s) 1402 can be hardware and/or software (e.g., threads, processes, computing devices). The system 1400 also includes one or more server(s) 1404. Thus, system 1400 can correspond to a two-tier client server model or a multi-tier model (e.g., client, middle tier server, data server), amongst other models. The server(s) 1404 can also be hardware and/or software (e.g., threads, processes, computing devices). One possible communication |

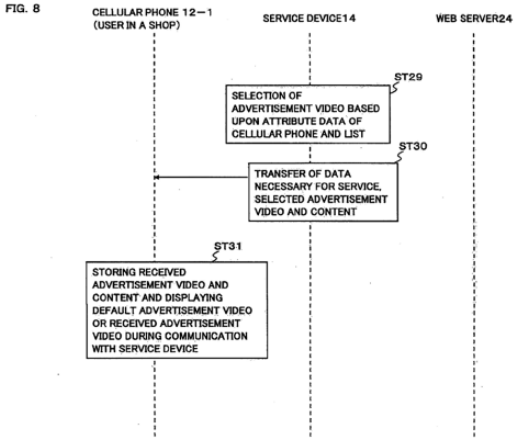
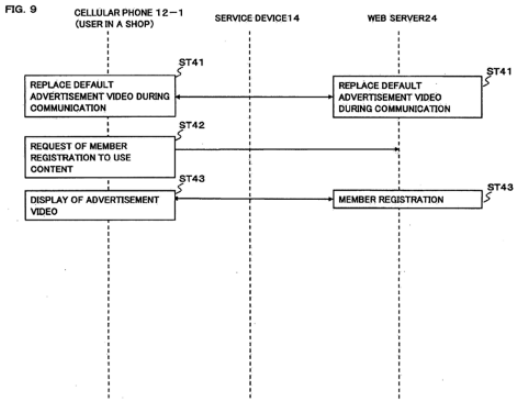
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| | between a client 1402 and a server 1404 may be in the form of a data packet adapted to be transmitted between two or more computer processes. The system 1400 includes a communication framework 1406 that can be employed to facilitate communications between the client(s) 1402 and the server(s) 1404. The client(s) 1402 are operably connected to one or more client data store(s) 1408 that can be employed to store information local to the client(s) 1402. Similarly, the server(s) 1404 are operably connected to one or more server data store(s) 1410 that can be employed to store information local to the servers 1404.” Hughes ’666 at [0113].<br>  <br><br>FIG. 1<br>  <br><br>FIG. 2<br>Macaluso ’238 at FIG. 2. |

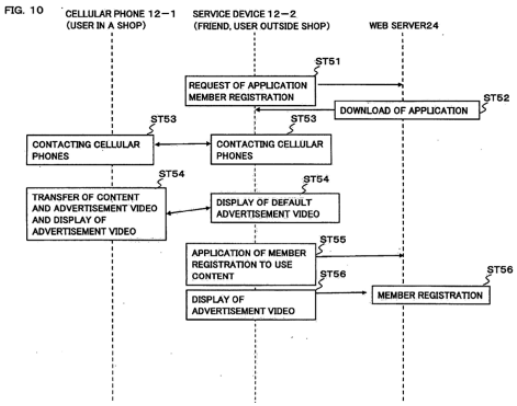
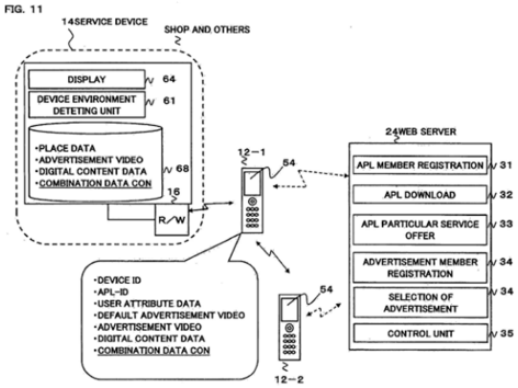
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| |  <br>FIG. 3<br>Macaluso ’238 at FIG. 3.<br>“FIG. 2 is a block diagram of a mobile phone 200 that may be used in connection with the described techniques. The mobile phone 200 includes a transceiver 205 connected to an antenna 210 for communicating voice and data to and from a remote server, wireline telephone connection, and/or another mobile device through a wireless communication system in accordance with conventional techniques. For example, the wireless communication system may be a CDMA, GSM, or UMTS network, or any other type of mobile network. The transceiver 205 is connected to a processor 215 that controls the operation of the mobile phone 200, including the operation of the transceiver 205. A storage medium 220, which may be removable, read-only, or read/write media and may be magnetic-based, optical-based, semiconductor-based media, or a combination of these, may store operating system software for the mobile phone 200. A memory 225 may store additional, less vital information, such as applications that may be loaded into the mobile phone 200, including an application for displaying advertisements on the mobile phone 200. In addition, a cache containing one or more advertisements may be stored in the memory 225. Both the memory 225 and the storage medium 220 are connected to the processor 215. The processor 215 may operate in accordance with software, applications, or other instructions stored in the memory 225 and/or the storage medium 220.” Macaluso ’238 at [0025]. |

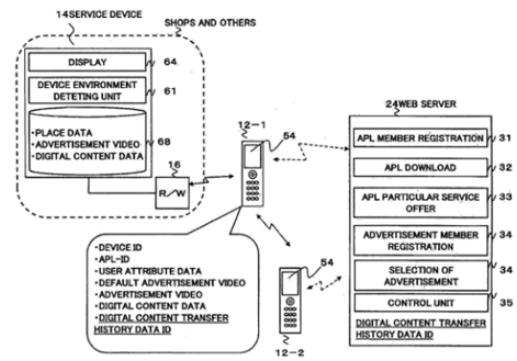
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| | FIG. 1<br>  <br><br>Kinoshita ’866 at Fig. 1.<br>FIG. 3<br>  <br><br>Kinoshita ’866 at Fig. 3. |

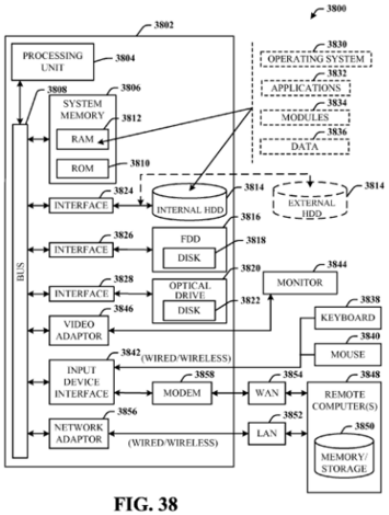
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| | FIG. 4<br>  <br><br>Kinoshita ’866 at Fig. 4.<br>  <br><br>Kinoshita ’866 at Fig. 5. |

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| |  <br>Kinoshita ’866 at Fig. 6.<br>  <br>Kinoshita ’866 at Fig. 7. |

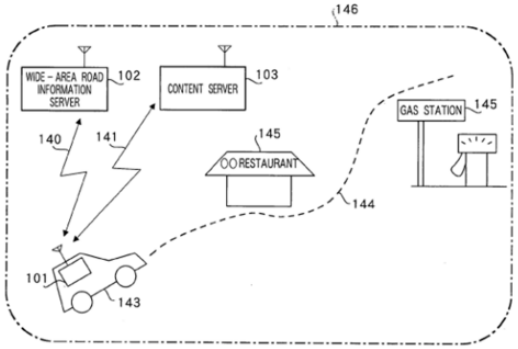
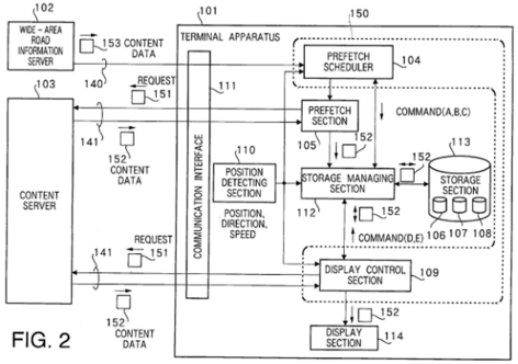
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| |  <br>Kinoshita ’866 at Fig. 8.<br>  <br>Kinoshita ’866 at Fig. 9. |

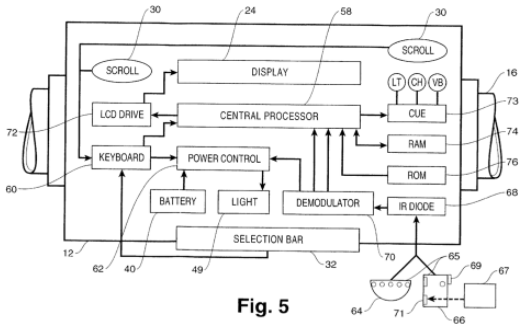
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| |  <br>Kinoshita ’866 at Fig. 10.<br>  <br>Kinoshita ’866 at Fig. 11. |

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| | FIG. 12<br>  <br><br>Kinoshita ’866 at Fig. 12.<br>“The second aspect of the present invention is a service processing device comprising: an interface that performs short-range communication with a mobile communication device directly or indirectly; a memory that stores place data; and a controller that receives attribute data of a user or user's mobile communication device from user's mobile communication device, transfers the attribute data and the place data read out from the memory to the server, and performs announcement based upon recommendation data corresponding to the place data received from the server.” Kinoshita ’866 at [0010].<br>“The fourth aspect of the present invention is a server for providing information associated with a mobile communication device that performs short-range communication with a service processing device installed at a predetermined place, the server comprising: an interface that receives attribute data of a user or his mobile communication device and place data of a place where the service processing device is installed from the mobile communication device or the service processing device; a memory that stores recommendation data which is associated with the attribute data and the place data; and a controller that reads out, from the memory, the recommendation data which is associated with the attribute data received by the interface and the place data, and transfers the recommendation data to the mobile communication device or the service processing device through the interface.” Kinoshita ’866 at [0012].<br>“The service device 14 includes, for example, a device environment detecting unit 61, an interface 62, a display 64, a short-range communication unit 65, a memory 68, and a processing circuit 69. ” Kinoshita ’866 at [0037]. |

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| | “Referring to FIG. 4, the Web server 24 includes, for example, an interface 62, a memory 68, and a processing circuit 69.” Kinoshita ’866 at [0041].<br>  <br><br>**FIG. 38**<br>Smith ’558 at Fig. 38.<br>“As used in this application, the terms “component,” “module,” “system,” and the like are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on a server and the server can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.” Smith ’558 at [0058].<br>“Furthermore, the one or more embodiments may be implemented as a method, apparatus, or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof to control a computer to implement the disclosed embodiments. The term “article of manufacture” (or alternatively, “computer program product”) as used herein is intended to encompass a computer program accessible from any computer-readable device, carrier, or media. For |

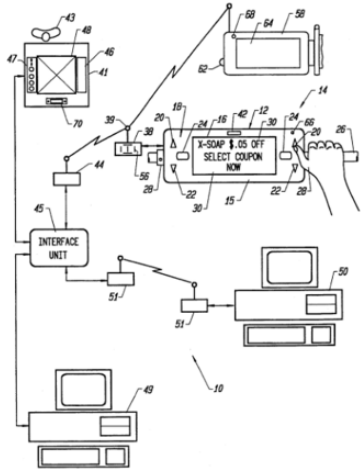
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| | example, computer readable media can include but are not limited to magnetic storage devices (e.g., hard disk, floppy disk, magnetic strips . . . ), optical disks (e.g., compact disk (CD), digital versatile disk (DVD) . . . smart cards, and flash memory devices (e.g., card, stick).” Smith ’558 at [0060].<br><br>“Generally, program modules include routines, programs, components, data structures, etc., that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the inventive methods can be practiced with other computer system configurations, including single-processor or multiprocessor computer systems, minicomputers, mainframe computers, as well as personal computers, hand-held computing devices, microprocessor-based or programmable consumer electronics, and the like, each of which can be operatively coupled to one or more associated devices.<br><br>The illustrated aspects may also be practiced in distributed computing environments where certain tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules can be located in both local and remote memory storage devices.<br><br>A computer typically includes a variety of computer-readable media. Computer-readable media can be any available media that can be accessed by the computer and includes both volatile and nonvolatile media, removable and non-removable media. By way of example, and not limitation, computer-readable media can comprise computer storage media and communication media. Computer storage media includes both volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CD-ROM, digital video disk (DVD) or other optical disk storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the computer.<br><br>Communication media typically embodies computer-readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism, and includes any information delivery media. The term “modulated data signal” means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of the any of the above should also be included within the scope of computer-readable media.” Smith ’558 at [0249]–[0252]. |

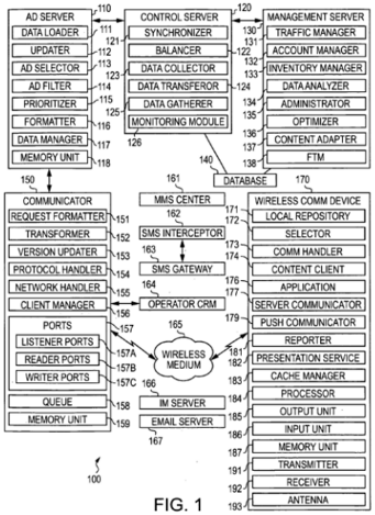
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| |  <br>FIG. 1<br>Sato ’965 at Fig. 1.<br>  <br>FIG. 2<br>Sato ’965 at Fig. 2.<br>“Terminal apparatus 101 is, for example, a car navigation system with communication function, PDA (Personal Data Assist), notebook personal computer or the like. Further, terminal apparatus 101 may be a portable communication terminal such as a cellular telephone and PHS.” Sato ’965 at [0045].<br>“Wide-area road information server 102 and content server 103 are, for example, server computers with arbitrary configurations.” Sato ’965 at [0050]. |

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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“The electronic shopping cart handle of the preferred embodiment includes an internal operating system that enables the device to incorporate efficient power management in order to maximize the life of the power pack that is provided for each device. ” Begum ’880 at 4:10–14.<br>“Because of improved design of compact integrated chip technologies use of an integrated chip incorporating an entire computer on a chip is preferred. This selection allows the essential processor and memory unit to be extremely compact allowing the low-profile configuration of the electronic shopping cart handle described in this specification” Begum ’880 at 4:39–44.<br>“The invented device is a dedicated appliance computer that is capable of being reprogrammed in order to add additional features to the device as users become more sophisticated. Such features as the automatic display of advertisements at select store locations and the global updating of displayable data by wireless transmissions are described in the referenced application.” Begum ’880 at 4:53–59.<br>“The user interface is designed to allow the user to access all of the available data including stored promotional graphics by a control system that is intuitive. Furthermore, the hybrid system devised for |

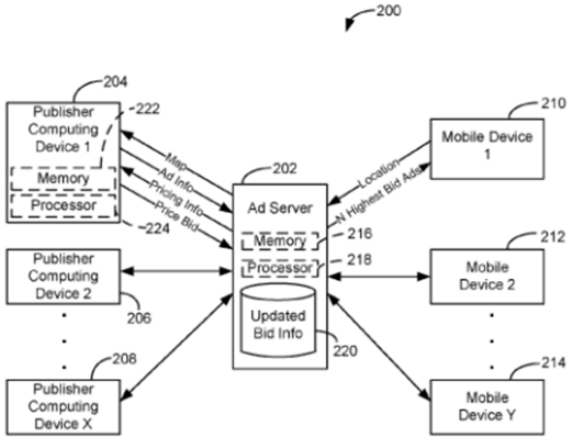
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| | automatic display of promotional graphics, is designed to incorporate features that are beneficial in facilitating automatic update of the promotional advertisements.” Begum ’880 at 4:65–5:4.<br><br>“Referring to the schematic illustration of FIG. 5, the display unit 12 contains a central processor 58 which is an integrated circuit chip for programs to control the system operation. The processor receives and directs data for operation of the display unit, and is preferably a state of the art chip, such as an Intel 286 or more expensive 386 chip. Although more advanced logic circuits are not necessary for the contemplated informational and operational tasks involved in the shopping cart handle, advanced state of the art processors can be used to advantage for power management. The processor 58 connects to a standard keyboard chip 60, which as noted, may be integrated into the processor chip. The keyboard chip 60 includes the circuity necessary to interpret signals from the scroll buttons 30 or the selection bar 32.” Begum ’880 at 8:10–24.<br><br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47.<br><br>“The trigger and data signals are demodulated in a converter circuit 70 and passed to the central processor 58 for reprogramming the memory or activating retrieval of memory packets for display of advertising information in the display screen 24 under control of the LCD driver and controller circuit 72.” Begum ’880 at 8:48–53.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the |

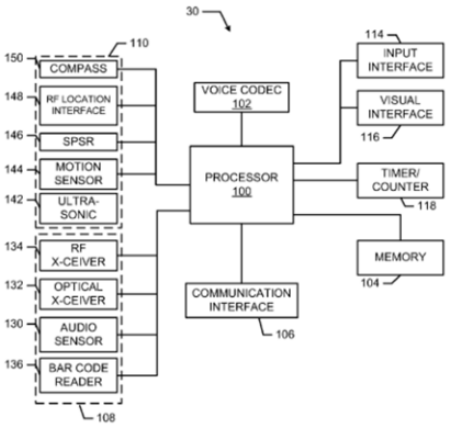
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| | unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>“The product control signals may be utilized in this compare process for rapidly locating the presence or absence of a particular promotional screen graphic in memory and initiating display of either the screen graphic in memory or the screen graphic formatted from the screen graphic signal transmitted by the transceiver unit 65. In this manner, the shopping carts that are in use, are continually updated as they pass a transceiver unit 65, such that even if an outdated ad is stored in memory, the updated ad will be presented once the shopper has arrived at the location of the promoted item. Although this system has the minor drawback of potentially storing an outdated promotional graphic in memory that is accessible by a shopper during review of the product promotion file using the display unit in an interactive mode, the system is self-correcting at the promoted product location.” Begum ’880 at 10:16–31.<br><br>“The random access memory (RAM) 74 and read only memory (ROM) 76 store the systems operations data and reprogrammable user data for displaying store directory and product information in the display screen 24.” Begum ’880 at 10:32–35.<br><br>“Although the devised shopping cart display handle will have the capabilities of a personal computer, a dedicated informational format, as schematically illustrated in FIGS. 6-10, is incorporated to ease user familiarization and encourage adoption as a shopping aid.” Begum ’880 at 10:37–41.<br><br>*See also* Begum ’880 at Abstract, Fig. 1, 1:60–2:5, 4:33–38, 5:65–6:4, 9:12–16, 9:16–29, and 9:56–65. |

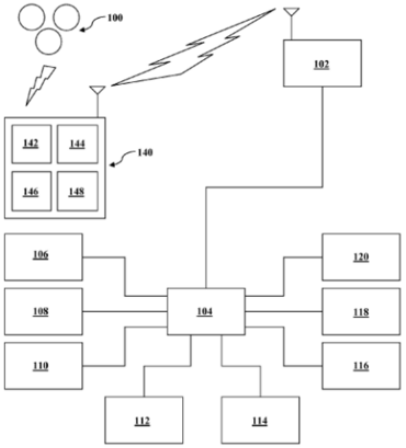
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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“The customer display device 12 is part of a portable communication unit 14 having a control panel 15 with a display screen 16 and easily operated user controls 18, such as complementary up and down scroll buttons 20, 22, and select buttons 24” Begum ’606 at 4:17–21. |

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| |  <br>FIG. 1<br>Levkovitz ’852 at Fig. 1.<br>“In some embodiments, for example, the server may include a memory unit to store a plurality of content items from which the content item is selected.<br>In some embodiments, for example, the memory unit may include a volatile memory or a non-volatile memory.<br>In some embodiments, for example, the server is to periodically copy the content of the volatile memory into a non-volatile memory.” Levkovitz ’852 at [0012]–[0014].<br>“FIG. 1 schematically illustrates a block diagram of a wireless communication system 100 able to deliver content in accordance with an embodiment of the invention. System 100 may include, for example, an ad server 110, a control server 120, a management server 130, a database 140, a communicator 150, and one or more wireless communication devices, e.g., a wireless communication device 170.” Levkovitz ’852 at [0094].<br>“Ad server 110 may include one or more servers, or a “server farm”, which may be operatively connected to communicator 150. Ad server 110 may process content requests stored in the queue 158 of communicator 150, e.g., in accordance with a pre-defined order or algorithm.” Levkovitz ’852 at [0098]. |

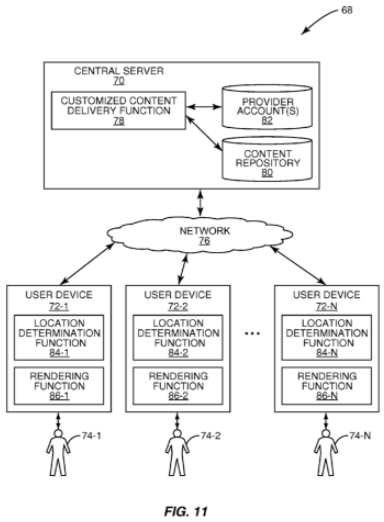
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| | “In one embodiment, memory unit 118 may include a non-volatile memory, for example, a long term memory unit, a disk, a hard disk drive, or the like. In another embodiment, memory unit 118 may include a volatile memory, for example, a Random Access Memory (RAM), a Dynamic RAM (DRAM), a Synchronous DRAM (SD-RAM), a Flash memory, a cache memory, a buffer, a stack, a short term memory unit, or the like.” Levkovitz ’852 at [0125].<br><br>“Management server 130, control server 120, ad server 110, communicator 150, and/or other components of system 100, may be implemented, for example, using one or more computing platforms or computing devices, e.g., one or more computers or servers including a processor, a memory unit, a storage unit, an input unit, an output unit, a transmitter, a receiver, an antenna, a power source, an Operating System, software applications, and/or other suitable software components and/or hardware components.” Levkovitz ’852 at [0173].<br><br>“The mobile devices 30 within the m-commerce environment 8 can be implemented with any portable communication device capable of over-the-air or through-the-air radio frequency (“RF”) communication, as understood by those skilled in the art, with the m-commerce server 10. For example, the mobile device 30 can be a mobile telephone, an email communication device (e.g., such as those sold under the trademark BLACKBERRY), a personal digital assistant (PDA), or other mobile device. Regardless of the embodiment, each of the mobile devices 30 preferably includes a display 32 (e.g., a liquid crystal display (“LCD”)) capable of displaying the textual and/or graphical e-commerce content distributed by the m-commerce server 10.” Sanctis ’837 at [0030].<br><br>“Also, as shown in FIG. 7, and as will be understood by those skilled in the art, the mobile devices 30 can download client application software 41 to be stored in memory, e.g., flash memory 40, of the mobile device 30 and can include mobile device enhancement program product 42 or software and application program interface program product or software from an input/output having download 48, e.g., wireless or hardwire, capabilities associated with the mobile device 30 via a communication link 26 with another computer or the server 10, or be provided with client application program product or software upon purchase of the mobile device, to enhance client communication capabilities to the m-server 10, to enhance GUI displays to the user, and to enhance other features 44 for the user as a set of program instruction as understood by those skilled in the art and as described herein, such as mobile alerts, make purchase consummation, gathering account information, viewing detail on product, viewing past orders, shipment tracking, and security encryption.” Sanctis ’837 at [0038]. |

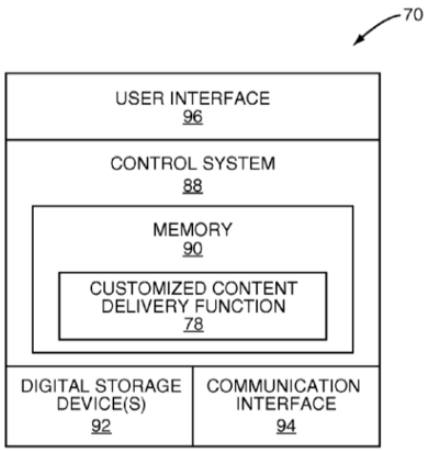
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| |  <br>FIG. 2<br>Bussmann ’294 at FIG. 2.<br>“FIG. 2 shows an example embodiment of a location-based advertising use environment 200. Use environment 200 comprises an advertising server 202 in communication with a plurality of advertising publisher computing devices 204, 206, 208, and also with a plurality of devices 210, 212, 214 that request and receive advertising content from the advertising server 202. In the depicted embodiment, the number of advertising publisher client computing devices in communication with the advertising server 202 is illustrated as a generic number X, and the number of requesting/receiving devices is illustrated as a generic number Y, indicating that any suitable number of advertising publisher client computing devices and requesting/receiving devices may be in communication with the advertising server 202 at any time.<br>The advertising server 202 comprises memory 216 and a processor 218, wherein the memory 216 comprises instructions stored thereon that are executable by the processor 218 to perform the various methods of operating an advertising server disclosed herein. The advertising server 202 further comprises a database 220 that stores various items of information related to the provision of location-based advertising services. For example, the database 220 may store user account information related to the advertising publishers and/or consumer devices that utilize the system. The database 220 also may store advertising content provided by each advertising publisher, and bid information related to the advertising content. The term “updated bid |

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| | information” may be used herein to describe such current bid information, as bids may be submitted and/or modified by advertising publishers on a continuous, rolling basis. The updated bid information may include such information as the geographic locations and time intervals selected by each advertising publisher for the distribution of advertising content, category information related to the type of advertising content provided by each advertising publisher and to the specific distribution services requested by the advertising publisher, pricing information related to the price paid by each advertising publisher for a desired transaction type (per view, per click-through, etc.), payment information related to the method of payment used by each advertising publisher (pre-paid credits, debit/credit card info, etc.), or any other suitable information.” Bussmann ’294 at [0012]–[0013].<br>FIG. 2<br>  <br><br>Mello ’479 at FIG. 2.<br>“FIG. 2 is a detailed block diagram of an example implementation of the PPM 30 of FIG. 1. As discussed above, the PPM 30 may be used to monitor the use of a location-based web service application by a monitored person (e.g., the monitored person 32 of FIG. 1). It may also be used to collect location information and/or motion information associated with the use of the location-based web application. In general, the PPM 30 includes electronic components configured to detect and/or collect media monitoring information, location information, and/or motion information, and to communicate the information to the |

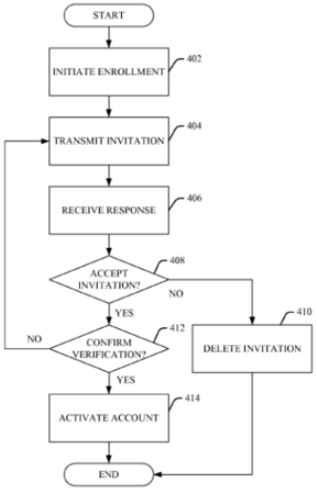
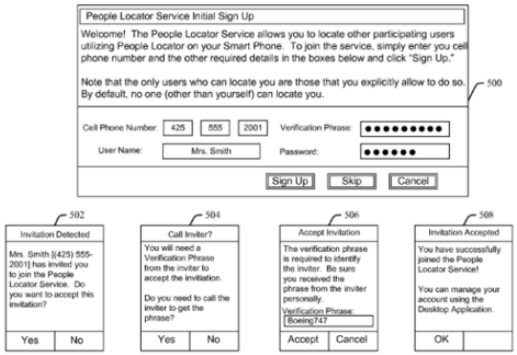
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| | central facility 60 of FIG. 1 for subsequent analyses. As shown in FIG. 2, the PPM 30 includes a processor 100, a voice coder/decoder (CODEC) 102, a memory 104, a communication interface 106, a plurality of media monitoring sensors 108, a plurality of location and motion sensors 110, an input interface 114, a visual interface 116 and a timer/counter 118, all of which are communicatively coupled as shown.” Mello ’479 at [0036].<br><br>“It is to be understood that the example machine accessible instructions of the flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be executed by a processor, a controller and/or any other suitable processing device. For example, the example machine accessible instructions of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be embodied in coded instructions stored on a tangible medium such as a flash memory, or random access memory (RAM) associated with a processor. Alternatively, some or all of the example flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be implemented using an application specific integrated circuit (ASIC), a programmable logic device (PLD), a field programmable logic device (FPLD), discrete logic, hardware, firmware, etc. ” Mello ’479 at [0118].<br><br>  <br><br>FIG. 1<br>Busch ’815 at Fig. 1. |

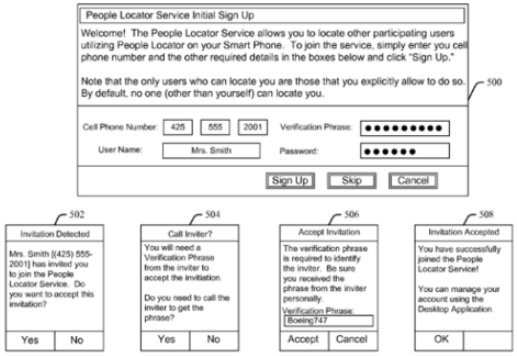
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| | “The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, integration of location data with customer relationship management systems and systems to determining retail business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br><br>“With reference to FIG. 1 GPS satellites 100 operate to determine the location of a mobile device 140 that has a number of features available based upon the location data. The mobile device 140 provides a user interface 142, GPS receiver 144, CPU and memory 146, and radio 148. Examples of mobile device 140 include cellular phones, personal digital assistants, pagers, laptop computers, automobile navigation systems, among others. Mobile device 140 receives GPS signals and determines its location. For purposes of illustration and without limitation, this may occur solely through using the GPS system, or may occur by using a filter to combine location data from the GPS system and another system such as cell-tower-triangulation in order to obtain a more accurate location. The mobile device 140 is wirelessly coupled to an access point 102 with a built in radio 148. The access point 102 is coupled to the Internet 104 or other network. A number of other systems or services are available to the device over the Internet 104 or other network optionally including but not limited to an inventory system 106, advertisement system 108, search engine 110, mapping, business location, GIS, and routing database 112, user information database 114, advertiser information database 116, payment system 118, and phone system 120.” Busch ’815 at [0334].<br><br>“When the user is viewing an area of the map without driving directions, the mapping website or software displays locations of interest in the current view of the map. When the mapping website or software is showing search results, and the user selects a specific business location, locations of other types of businesses of interest appear on the map around the location selected.” Busch ’815 at [0379]. |

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| |  <br>*FIG. 11*<br>Svendsen ’073 at Fig. 11. |

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| |  <br>***FIG. 13***<br>Svendsen ’073 at Fig. 13.<br>“FIG. 11 illustrates a system 68 for customized content delivery according to one embodiment of the present invention. In general, the system 68 includes a central server 70 and a number of user devices 72-1 through 72-N having associated users 74-1 through 74-N. The central server 70 and the user devices 72-1 through 72-N are enabled to communicate via a network 76. The network 76 may be any type of Wide Area Network (WAN), Local Area Network (LAN), or the like, or any combination thereof. In addition, the network 76 may include wired components, wireless components, or both wired and wireless components. As an example, the network 76 may be the Internet.” Svendsen ’073 at 13:27–38.<br>“The central server 70 includes a customized content delivery function 78, which may be implemented in software, hardware, or a combination thereof.” Svendsen ’073 at 13:39–41.<br>“In addition, the central server 70 may include a content repository 80. For each of a number of content providers, the content repository 80 may store the content items or references to the content items provided by each of the content providers. As discussed above, the content providers may be advertisers, media content providers, or the like. As such, the content items provided by the content providers may be advertisements, media items, or the like. Lastly, the central server 70 hosts or otherwise has access to a provider accounts |

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| | repository 82, which includes a provider account, or account, for each of the content providers.” Svendsen ’073 at 13:41–52.<br><br>“FIG. 13 is a block diagram of the central server 70 of FIG. 11 according to one embodiment of the present invention. In general, the central server 70 includes a control system 88 having associated memory 90. In this example, the customized content delivery function 78 is implemented in software and stored in the memory 90. However, the present invention is not limited thereto. The customized content delivery function 78 may be implemented in software, hardware, or a combination thereof. In addition, the central server 70 may include one or more digital storage devices 92 such as one or more hard disk drives or the like. The provider accounts repository 82 and the content repository 80 may be stored in the one or more digital storage devices 92, the memory 90, or a combination thereof. The central server 70 also includes a communication interface 94 communicatively coupling the central server 70 to the network 76 (FIG. 11). Lastly, the central server 70 may include a user interface 96, which may include components such as a display, one or more user input devices, or the like.” Svendsen ’073 at 15:28–46.<br><br>*See also* Svendsen ’073 at Fig. 1 and 4:48–67.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6d] at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type.” For example: |

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| |  <br>**FIG. 4**<br>Hughes ’666 at Fig. 4.<br>  <br>**FIG. 5**<br>Hughes ’666 at Fig. 5. |

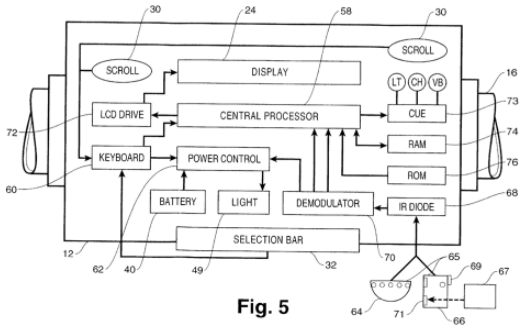
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| |  <br>**FIG. 5**<br>Hughes ’666 at Fig. 5.<br>“Availability of location information can enhance the usability of mobile devices in non-emergency situations as well. Mobile devices can include a variety functions such as cellular phone service, voice over Internet protocol (“VoIP”) phone service, software applications, email access, Internet capabilities, calendar functions, music players and the like. It is likely that functions will continue to be added to mobile devices further increasing device usefulness.” Hughes ’666 at [0006].<br>“An alert system can provide for creation and management of user accounts corresponding to individual mobile devices. Accounts can be used to control access to location information for enrolled mobile devices and to manage a set of alerts.” Hughes ’666 at [0032].<br>“The alert system 100 can include an account interface 102 that allows users to enroll, initialize, manage and maintain user accounts. Users can provide user and mobile device information to the account interface 102 and receive account information. Accounts can be used to manage a set of alerts and to control access to location information for corresponding mobile devices. Each account can represent a separate mobile device.” Hughes ’666 at [0033].<br>“Typically, an alert is associated with a particular user account.” Hughes ’666 at [0034].<br>“The mobile devices 206 can be enrolled and associated with an account of the alert system 202.” Hughes ’666 at [0042]. |

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| | “Referring now to FIG. 3, a detailed diagram of an account interface 102 is illustrated. The account interface 102 can provide a graphical user interface (GUI) that allows users to enroll and initialize an account, modify an account, and manage alerts associated with the accounts. The account interface 102 can include an account manager component 300 that provides mobile device users with the ability to enroll and manage accounts and permissions. Prior to receiving notifications from the alert system, users can enroll their mobile devices, setting up permissions regarding access to location information. The alert manager component 302 allows users to define and manage alerts associated with an account and ensure that the mobile device user has the requisite permissions to create the alerts. Creation of an alert will be discussed in detail below.” Hughes ’666 at [0045].<br><br>“Referring now to FIGS. 4 and 5, FIG. 4 illustrates a methodology for enrolling a mobile device and initializing an account. FIG. 5 illustrates exemplary display screens for the enrollment process. The enrollment process can utilize both a terminal and the mobile device to ensure security and facilitate account configuration. At reference numeral 402, the enrollment process can be initiated. Enrollment of a mobile device can be initiated through a network, such as the Internet, via a terminal, such as a desktop computer. Enrollment and account management through a terminal allows users to view account details. A single user can utilize a terminal and mobile device together to initialize the mobile device account. Alternatively, a user at a terminal can extend an invitation to a mobile device user to create an account.” Hughes ’666 at [0046].<br><br>“At reference numeral 404, an invitation to confirm enrollment in the alert service is transmitted to the mobile device whose identifier was entered during account initialization.” Hughes ’666 at [0048].<br><br>“Referring now to FIG. 5, an exemplary initialization screen 500 can be provided to allow a user to enroll a mobile device and initialize an account.” Hughes ’666 at [0050].<br><br>“An exemplary invitation display screen 502 illustrates the invitation received at the cell phone. The invitation advises the cell phone user that the initialization process is underway and allows the cell phone user to indicate whether they wish to continue with the initialization process. ” Hughes ’666 at [0051].<br><br>“The system can provide multiple types of accounts, such as independent accounts and dependent accounts. Typically, each mobile device can be connected to a single account. However, a single user can control multiple accounts by creating an independent account and one or more related dependent accounts governed, at least in part, by the independent account. ” Hughes ’666 at [0053].<br><br>“The independent account can determine the specific permissions available for any dependent account. Dependent accounts can be useful in situations where individuals should not have control of the full features |

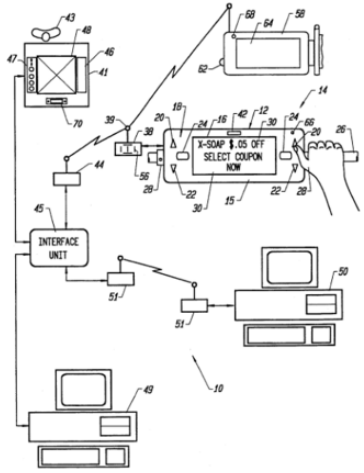
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| | of the alert service. For example, a parent may set up a dependent account for their child or an adult child may set up a dependent account for their elderly parent.” Hughes ’666 at [0054].<br><br>“Alert conditions can be based upon the juxtaposition or proximity of a first entity with a second entity, where an entity can be an individual mobile device, a geographic region, a geographic location or an event. Typically, it is the combination of two or more entities or features that triggers distribution of a notification to a mobile device. For example, an alert can be defined so that a notification is distributed when a first entity is in close, physical proximity to a second entity.” Hughes ’666 at [0059].<br><br>“Notifications can be distributed or delivered to the mobile devices in a variety of forms. A notification can be a simple short message service (SMS) text message delivered to a cell phone. In addition to simple text, a notification can include geographic location information, phone numbers or even an electronic coupon. The alert system can generate a temporary geographic location based upon the alert. For example, if an alert is triggered by an event within a geographic region, the notification received at a mobile device can include not only text describing the location, but location information (e.g., a street address or latitude and longitude) that can be used to retrieve additional information about the location of the event. The user may be able to retrieve a map with the event location highlighted or indicated upon the map. The user can act upon the provided location information rather than simply receiving passive text. The notification can also contain a phone number associated with the alert. For example, the phone number of the user whose location is monitored or a phone number associated with the event can be provided within the notification. By simply selecting the phone number, the user can contact the event and receive additional information.” Hughes ’666 at [0082].<br><br>“The specification can also define the information to be included in the advertisement notification (e.g., text message, coupon and the like) and an alert category (e.g., fast food, electronic equipment, etc.).” Hughes ’666 at [0092].<br><br>*See also* Hughes ’666 at [0040].<br><br>“Implementations may include one or more of the following features. For example, the advertisement may be downloaded to the mobile device over a wireless interface. The wireless communication may include a download of data to the mobile device. The download of data may involve data used by an application running on the mobile device. ” Macaluso ’238 at [0006].<br><br>“Applications stored on the mobile phone 200, such as the advertising application, may be written in Java code, C/C++ code, in accordance with a Binary Runtime Environment for Wireless (BREW) Software Development Kit (SDK), or some other appropriate format. The storage medium 220 in the mobile phone 200 |

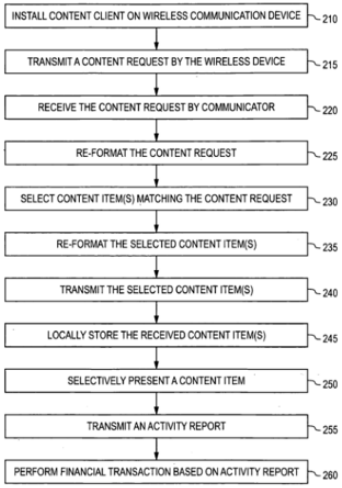
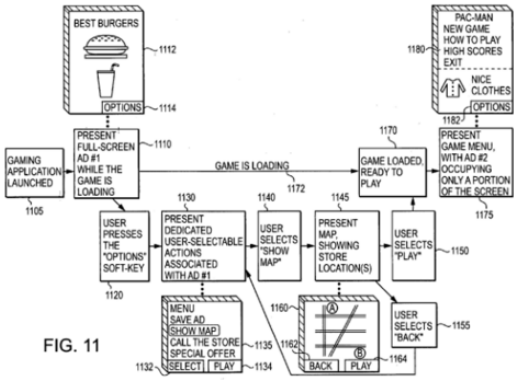
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| | may include a Java virtual machine. Alternatively or in addition, the storage medium 220 may include BREW client software. The BREW platform, which was developed by Qualcomm and is described in greater detail at “www.qualcomm.com/brew,” enables Java and BREW applications to be easily downloaded onto and executed on the mobile phone 200. As another alternative, the storage medium 220 may include software for implementing Motorola's iDEN technology. In general, a Java virtual machine maybe run on top of the BREW client or iDEN technology to support Java applications/applets, and other types of extensions may be run on top of the BREW client to support other types of applications. Applications, such as the advertising application mentioned above, may therefore be easily loaded onto the mobile phone 200.” Macaluso ’238 at [0026].<br><br>“A user can download content data from the R/W device 16.” Kinoshita ’866 at [0029].<br><br>“Referring to FIG. 2, the cellular phones 12-1 and 12-2 include, for example, a communication unit 52, a display 54, an operation unit 56, memory 58, and a processing circuit 59. The cellular phones 12-1 and 12-2 used in the present embodiment are operated by the processing circuit 59 that executes programs stored in the memory 58. At this time, data used in the execution is read out from or written to the memory 58.” Kinoshita ’866 at [0031].<br><br>“As shown in FIG. 1, the Web server 24 includes, for example, an APL member registration unit 31, an APL downloading unit 32, an APL particular service providing unit 33, an advertisement-member registration unit 34, an advertisement selecting unit 35, and a control unit 36. The APL member registration unit 31 performs member registration before an application program APL is downloaded, which will be described later. The APL downloading unit 32 downloads the above-mentioned application program APL.” Kinoshita ’866 at [0041].<br><br>“The APL particular-service providing unit 33 provides services such as content selling service, shop searching service, and photo printing service by using the application program APL.” Kinoshita ’866 at [0042].<br><br>“The advertisement-member registration unit 34 registers members that use digital content data.” Kinoshita ’866 at [0042].<br><br>“The service device 14 determines whether the cellular phone 12-1 has downloaded a predetermined application program APL through the R/W device 16. If the application program APL has not been downloaded, URL for downloading the application program APL is transferred to the cellular phone 12-1. An |

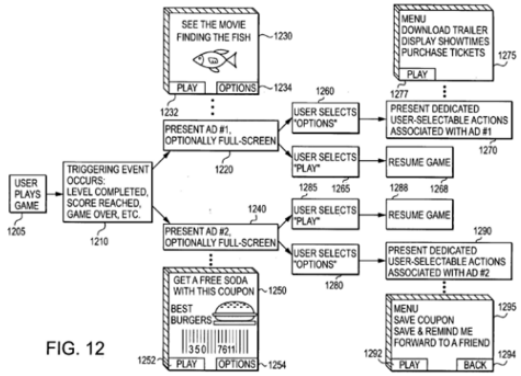
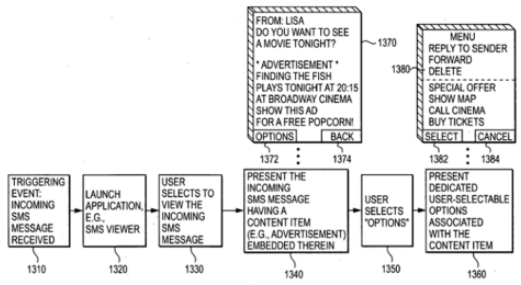
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| | application program APL is, for example, provided to each service of the service device 14.” Kinoshita ’866 at [0091].<br><br>“The cellular phone 12-1 accesses the Web server 24 by using the URL received in the step ST12 and downloads an application program APL. The cellular phone 12-1 transfers the application program APL to the memory 58 of FIG. 2. The application program APL includes a default advertisement video. In the present embodiment, the default advertisement video has no digital content data. In the present embodiment, the number of videos included in the cellular phones 12-1 and 12-2 is not limited.” Kinoshita ’866 at [0093].<br><br>“When a user receives a particular service from the service device 14 by using the cellular phone 12-1, the processing circuit 59 reads out the application program APL from the memory 58 and starts it. Staring the application program APL, the processing circuit 59 reads out an advertisement video from the memory 58 and plays it on the display 54.” Kinoshita ’866 at [0094].<br><br>“The cellular phone 12-1 communicates with the service device 14 via the R/W device 16 by using the function of the application program APL. At this time, the cellular phone 12-1 transfers attribute data and a list of advertisement videos and digital content data, which are stored in the memory 58 of FIG. 2, to the service device 14, as well as given service requests. The service device 14 transfers the above things received from the cellular phone 12-1 to the memory 68 of FIG. 3. The attribute data includes, for example, user's age, gender, and preferences.” Kinoshita ’866 at [0096].<br><br>“The cellular phone 12-1 transfers a member registration request to the Web server 24 in order to use digital content data associated with an advertisement video.” Kinoshita ’866 at [0117].<br><br>“The Web server 24 performs the member registration of the user or his cellular phone 12-1 according to the member registration request sent from the cellular phone 12-1.” Kinoshita ’866 at [0119].<br><br>“In this registration process, the cellular phone 12-1 transfers data such as age, gender, preference, and local information to the Web server 24 to register them.” Kinoshita ’866 at [0119].<br><br>“A user's friend, who is not in a shop, sends a member registration request to the web server 24 by using his cellular phone 12-2 in order to use an application program APL. If the cellular phone 12-2 has already downloaded the application program APL, the present process is not necessary.” Kinoshita ’866 at [0123].<br><br>“The Web server 24 performs member registration according to the above member registration request and uploads the application program APL to the cellular phone 12-2. The cellular phone 12-2 transfers the application program APL to the memory 58 of the FIG. 2.” Kinoshita ’866 at [0125]. |

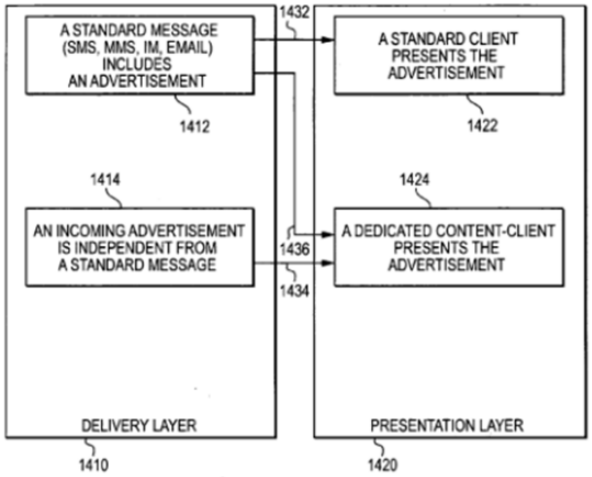
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| | “A user of the cellular phone 12-2 transfers a member registration request to the Web server 24 in order to use the digital video data received in the step ST 25.” Kinoshita ’866 at [0131].<br><br>“The Web server 24 performs member registration of the cellular phone 12-2 or its user according to the request from the cellular phone 12-2.” Kinoshita ’866 at [0133].<br><br>*See also* Kinoshita ’866 at Fig. 1, Fig. 2, Fig. 5, Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, Fig. 11, Fig. 12, [0011], [0028], and [0109].<br><br>“In a further embodiment, system 100 can facilitate real-time advertising and/or on-line advertising to one or more users based on various criteria including a user location, user preference, user request, advertiser location, advertiser rank, advertiser rating, etc.” Smith ’558 at [0073].<br><br>“Many applications can be location-enabled by the disclosed embodiment(s) including news events, office related information, shopping, city guides, vacations. Examples of each type of application and available data are detailed below and the disclosed embodiment(s) are not meant to be limited to the following examples.” Smith ’558 at [0196].<br><br>“Further, display section 114 outputs audio as well as video. In other words, display section 114 is capable of responding to content data including audio, as well as video.” Sato ’965 at [0070].<br><br>  <br><br>**Fig. 5**<br><br>Begum ’880 at Fig. 5.<br><br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart |

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| | display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br><br>“The user interface is designed to allow the user to access all of the available data including stored promotional graphics by a control system that is intuitive. Furthermore, the hybrid system devised for automatic display of promotional graphics, is designed to incorporate features that are beneficial in facilitating automatic update of the promotional advertisements.” Begum ’880 at 4:65–5:4.<br><br>“In the simplest embodiment of the invention, the display screen automatically displays periodic promotional items and the user controlled feature is limited to a categorical product directory. The scroll buttons allow a user to scroll up or down the product category list to find the location of selected items in the product directory.” Begum ’880 at 5:65–6:4.<br><br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>*See also* Begum ’880 at 1:60–2:5, 9:1–7, 9:12–16, and 9:16–29. |

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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“In the preferred embodiment, the communication units are primarily portable and communicate with the coupon interface modules via wireless data transmissions. Furthermore, the discount coupons are preferably activated when the shopper is in the market area proximate the location of the discounted items. In this situation, a local message sending unit proximate the location of the item activates the display of the coupon graphic on the display screen of the communication unit carried by the shopper or mounted on the shopper's cart. ” Begum ’606 at 3:4–14.<br>“As electronic coupon interface module 98 also shown in enlarged detail in FIG. 3 provides the chip set and specialty application programming necessary to adapt to the bar code scanner and checkout terminal at the checkout counter, and communicates with the store computer and systems controller. The central processor 71 utilizes a static 256K RAM 100 for random access memory 106 and a 64K EPROM for read only memory 102 under operation of an application program 105.” Begum ’606 at 8:24–33. |

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| |  <br>FIG. 2<br>Levkovitz ’852 at Fig. 2.<br>  <br>FIG. 11<br>Levkovitz ’852 at Fig. 11. |

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| |  <br>FIG. 12<br>Levkovitz ’852 at Fig. 12.<br>  <br>FIG. 13<br>Levkovitz ’852 at Fig. 13. |

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| |  <br>FIG. 14<br>Levkovitz ’852 at Fig. 14.<br>“In some embodiments, previously-prepared applications, e.g., utilities or games for mobile phones, may be configured or adapted to include or embed a content client, e.g., using a Software Development Kit (SDK) or a Close Class.” Levkovitz ’852 at [0006].<br>“In some embodiments, for example, the plurality of content items may include at least a first version of the content item adapted for presentation using a first type of wireless communication device, and a second version of the content item adapted for presentation using a second type of wireless communication device.” Levkovitz ’852 at [0030].<br>“In some embodiments, for example, the message may include a message selected from a group consisting of: a Short Message Service (SMS) message, a Multimedia Messaging Service (MMS) message, an Instant Messaging (IM) message, and an Electronic Mail (Email) message.” Levkovitz ’852 at [0039].<br>“ In some embodiments, for example, the wireless communication device may include a content client running on the wireless communication device to present the one or more user-selectable operation; and/or a |

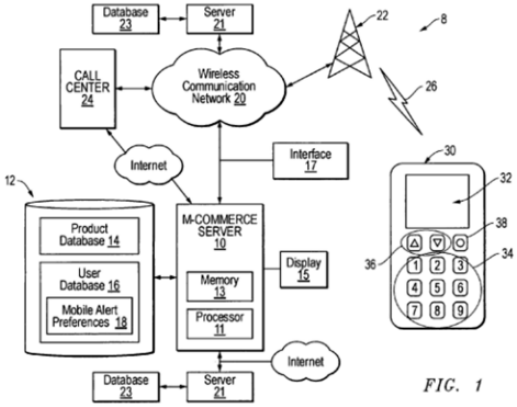
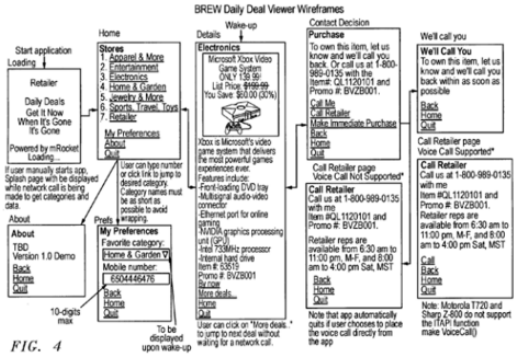
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| | content client to present the one or more user-selectable operations in a context of an application running on the wireless communication device” Levkovitz ’852 at [0064].<br><br>“ In some embodiments, for example, a wireless communication device may include a wireless communication device to receive an advertisement selected in response to an application-initiated content request, to present the advertisement in a context of an application running on the wireless communication device, and to present one or more user-selectable operations selectively associated with the advertisement. The application may be, for example, a gaming application, a utility application, or the like.” Levkovitz ’852 at [0069].<br><br>“In accordance with some embodiments of the invention, device 170 may include an application 176 having a content client 174. The application 176 may be; for example, a game or a software application.” Levkovitz ’852 at [0095].<br><br>“The content client 174 may be a module of application 176, a plug-in of application 176, or an external module operatively associated application 176. Content client 174 may be able to send a wireless signal indicating a request (“content request”) to receive one or more content items, e.g., textual content, audio content, video content, advertisement, informational items, or the like. The content request may include, for example, data indicating properties of device 170, e.g., handset manufacturer, handset model, screen resolution, screen color depth, audio capabilities, total memory, available memory, types of content items which the device 170 is capable to present, or the like; data indicating properties of the user of device 170, e.g., age, age group, gender, occupation, profession, areas of interest, income, usage habits, usage patterns, usage time, or the like; and/or other suitable information, e.g., data indicating the type of application associated with application 176, data identifying application 176, or the like.” Levkovitz ’852 at [0095].<br><br>“ In some embodiments, ad servers 150 may include multiple servers which may be shared among multiple campaigns or may be dedicated for a specific campaign or type of operation. For example, in one embodiment, a first ad server. 150 may serve content items directed for presentation using a first application 176 (e.g., a chess game), whereas a second ad server 150 may serve content items directed for presentation using a second application 176 (e.g., a racing game). In another embodiment, a first ad server 150 may serve content items directed for presentation using a first type of applications 176 (e.g., games), whereas a second ad server 150 may serve content items directed for presentation using a second type of applications 176 (e.g., utility applications). In yet another embodiment, a first ad server 150 may serve content items of a first type (e.g., images in JPG format, images having a first file size, or the like), whereas a second ad server 150 may serve content items of a second type (e.g., images in GIF format, images having a second file size, or the |

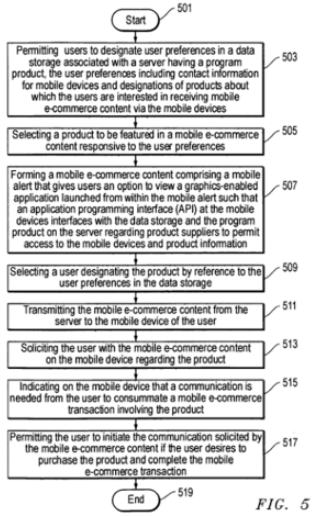
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| | like). In still another embodiment, a first ad server 150 may serve content items for SMS-related applications, a second ad server 150 may serve content items for MMS-related applications, a third ad server 150 may serve content items for IM-related applications, a fourth ad server 150 may serve content items for Email-related applications, and a fifth ad server 150 may serve content items for other types of applications. In some embodiments, a single ad server 150 may serve content items to multiple applications (e.g., SMS-related applications and/or MMS-related applications and/or IM-related applications and/or Email-related applications, or a combination of some of these applications). Other suitable combinations and configurations may be used. In another embodiment, a first ad server 150 may be dedicated to serve content items associated with a first advertiser, whereas a second ad server may be dedicated to serve content items associated with a second advertiser or with a group of multiple advertisers. Other suitable configurations may be used.” Levkovitz ’852 at [0099].<br><br>“A content adapter 137 of management server 140 may create multiple versions of content item, for example, having various dimensions, various color depth, various sizes in bytes, various file formats (e.g., JPG, GIF, TIF, BMP, AVI, MPG, MOV, TXT, or the like), various codec sets, or differing in other properties. In one embodiment, for example, content items may have multiple versions corresponding to a descriptive property of device 170, e.g., a full-size content item which may fill the entire screen of device 170, a half-screen size content item which may occupy approximately one half of the screen of device 170, a quarter-screen size content item which may include a square-shaped or rectangular content item which may occupy approximately one quarter of the screen of device 170, or the like. ” Levkovitz ’852 at [0105].<br><br>“Management server 130 may include one or more modules or components, for example, a traffic manager 131, an account manager 132, an inventory manager 133, a data analyzer 134, an administrator module 135, an optimizer 136, content adapter 137, and a Financial Transactions Module (FTM) 138.” Levkovitz ’852 at [0106].<br><br>“ Inventory manager 133 may estimate or predict usage of content items inventory, and may be used to categorize inventory content items. For example, a gaming content item may be added to an inventory list, stored in database 140, and categorized according to various criteria, e.g., game type, relevant ad types, or the like.” Levkovitz ’852 at [0109].<br><br>“ In some embodiments, a first ad server 110 may be assigned to serve a first content item or a first group of content items (e.g., associated with a first advertiser, or having a first type or size), and a second, different ad server 110 may be assigned to serve a second content item or a second group of content items (e.g., associated with a second advertiser, or having a second type or size).” Levkovitz ’852 at [0120]. |

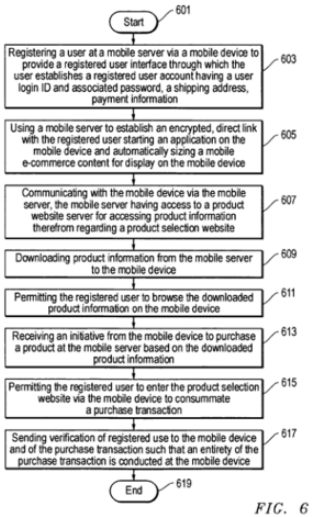
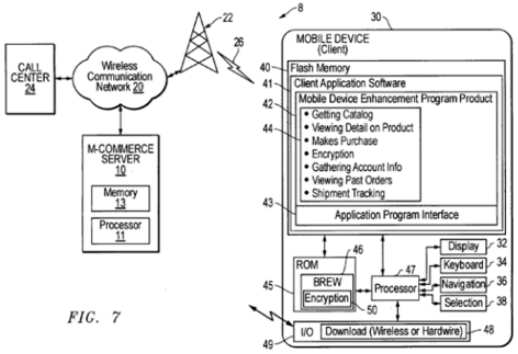
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| | “In accordance with some embodiments of the invention, device 170 may include application 176 having a content client 174. The application 176 may be, for example, a game or a software application. The content client 174 may be a module of application 170, a plug-in of application 170, or an external module operatively associated application 170. Content client 174 may be able to send a wireless signal indicating a request (“content request”) to receive one or more content items, e.g., textual content, audio content, video content, advertisement, informational items, or the like. The content request may be transmitted to communicator 150, for example, using communication handler 173. In one embodiment, transmission of the content request may be triggered by a user command or a user command, e.g., a signal entered by a user utilizing the input unit 186 and indicating that the user requests one or more content items.” Levkovitz ’852 at [0155].<br><br>“System 100 may optionally include other suitable components, for example, an MMS Center (MMSC) 161, an SMS interceptor 162, an SMS gateway 163, an Instant Messaging (IM) server 166, an Email server 167, and/or other servers or components (e.g., touters, switches, gateways, proxies, or the like) which may be operatively associated with communicator 150 and/or ad server 110, and may be used to send and/or receive SMS items and/or MMS items and/or IM items and/or Email items having embedded therein a content item served by ad server 110. For example, in one embodiment, a first wireless communication device 170 may send a SMS or MMS or IM or Email message intended to be received by a second wireless communication device 170; system 100 may intercept the message, and may modify the message, e.g., by adding, inserting, augmenting, appending or embedding into the message a content item stored in ad server 110; and the modified SMS or MMS or IM or Email message may be transmitted to the second wireless communication device 170. In one embodiment, for example, the appended content item may be an selected advertisement which may be added to a user-created SMS or MMS or IM or Email, for example, thereby reducing the cost or price that the sending user and/or the receiving user are required to pay to their service provider(s) in order to send or receive the SMS or MMS or IM or Email message.” Levkovitz ’852 at [0170].<br><br>“In some embodiments, optionally, a content item may be selectively inserted into, or appended to, a SMS or MMS or TM or Email message or other message (e.g., textual message, audio clip, video clip, image, or the like) sent by a first user to a second user. The content item may be selected, for example, based on properties of the sending user and/or based on properties of the receiving party. Additionally or alternatively, in one embodiment, the content item may be selected based on an analysis (e.g., textual analysis, keyword analysis, image recognition analysis, sound recognition analysis, or the like) of the content item; for example, if the sending user sends a textual SMS item containing the word “chocolate” or “love”, then a content item having |

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| | an advertisement for a chocolate product or a flowers delivery service may be selectively added to the SMS item. Other suitable criteria may be used to selectively serve content items.” Levkovitz ’852 at [0171].<br><br>“In some embodiments, optionally, local repository 172 may be shared by multiple applications 176 within device 170. For example, a first application 176 may include a first game, and a second application 176 may include a second game. Device 170 may include the first and second applications 176, having embedded therein first and second content clients 174, respectively. Local repository 172 may optionally be shared by the first and second applications 170 and/or by the first and second content clients 174 of device 170. For example, the first application 176 may be executed and may transmit a content request; in response, multiple content items may be received by receiver 192 and may be stored in local repository 171; one or more content items may be presented by the first application 176. Then, the second application 176 may be executed, and may utilize, e.g., may present, one or more content items which may already be stored in local repository 176. In another embodiment, multiple separate caches or multiple separate local repositories 171 may be used by multiple applications 176 of device 170. In some embodiments, optionally, the second application 176 may report to communicator 150 about presentation performed by the second application and/or the first application, or vice versa Other suitable configurations may be used.” Levkovitz ’852 at [0176].<br><br>“As indicated at box 210, the method may optionally include, for example, installing content client 174 on device 170, e.g., as a stand-alone module or as an embedded part, plug-in or component of application 176. The installing operation may optionally include, for example, downloading the content client 174 from an online source.” Levkovitz ’852 at [0179].<br><br>“Device 1070 may further include a content items browser 1098, for example, a software (e.g., embedded or non-embedded) client application allowing the user to selectively browse and/or view (e.g., present) one or more content items that are stored in content repository 1099, for example, to browse and/or view incoming commercial content item/advertisement/SMS/MMS/IM/Email messages (or portions thereof) that are stored in content repository 1099. In some embodiments, the content items browser 1098 may operate while device 1070 is online and/or while device 1070 is offline, e.g., may allow a user to selectively browse and/or view stored content items without dependence on the operational status or location of device 1070. Content items browser 1098 may further allow the user, for example, to selectively delete one or more content items stored in content repository. Content items browser 1098 may further allow the user, for example, to selectively send (e.g., forward) to another wireless communication device one or more content items stored in content repository.” Levkovitz ’852 at [0262]. |

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| | “As indicated at box 1105, a user may operate the wireless communication device to launch an application, for example, a gaming application.<br><br>As indicated at box 1110, while the gaming application is loading, the wireless communication device may present a first advertisement, for example, a substantially full-screen advertisement or an advertisement occupying more than 80 percent or more than 90 percent of the available screen size. ” Levkovitz ’852 at [0277]–[0278].<br><br>“As indicated at box 1170, the game may be loaded and may be ready for playing by the user. As indicated by arrow 1172, the operations of boxes 1120, 1130, 1140, 1145, 1150 and 1155 may be performed substantially in parallel to the loading process of the gaming application, and may not stop or delay the loading process.” Levkovitz ’852 at [0285].<br><br>“ In some embodiments, for example, if the loading of the gaming application is completed while the user views a presented advertisement, or while the user views a menu of options, the gaming application may wait for the user to select that the user wishes to resume the gaming application and play, and the gaming application need not interrupt the user. In other embodiments, for example, if the loading of the gaming application is completed while the user views a presented advertisement, e.g., if the user does not actively select an option associated with the advertisement but rather views the advertisement passively, then the gaming application may automatically begin. In one embodiment, even if the loading of the application is completed, the gaming application may utilize a delay period before it begins, e.g., to allow a minimum viewing time (e.g., five seconds) of the presented advertisement.” Levkovitz ’852 at [0286].<br><br>“As indicated at box 1175, once the gaming application begins, for example, a game menu may be presented. For example, box 1180 shows a demonstrative screen-shot of the presented game menu. The game menu may include game-related options (e.g., start a new game, view high scores table, read instructions how to play the game, exit the gaming application, or the like). The screen-shot of box 1180 may optionally include a second advertisement, which may occupy only a portion of the screen of the wireless communication device, e.g., approximately 50 percent of the available screen of the wireless communication device. Optionally, a user-selectable “options” action 1182 may be included, for example, to allow presentation of one or more additional user-selectable actions that the user may perform in relation to or in connection with the second advertisement.” Levkovitz ’852 at [0287].<br><br>*See also* Levkovitz ’852 at Fig. 1, [0026], [0147], and [0148]. |

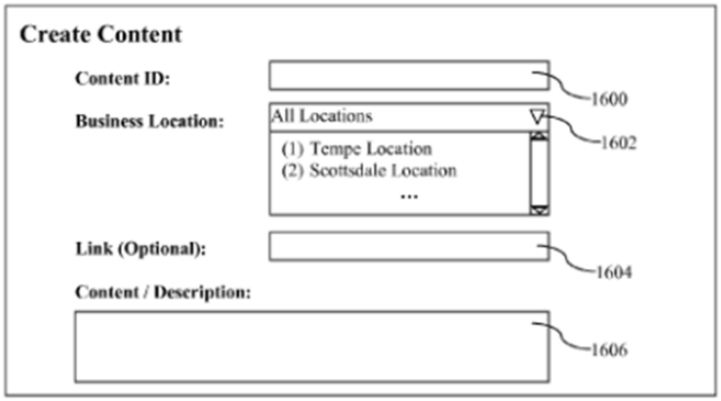
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| |  <br>FIG. 1<br>Sanctis ’837 at Fig. 1.<br>  <br>FIG. 4<br>Sanctis ’837 at Fig. 4. |

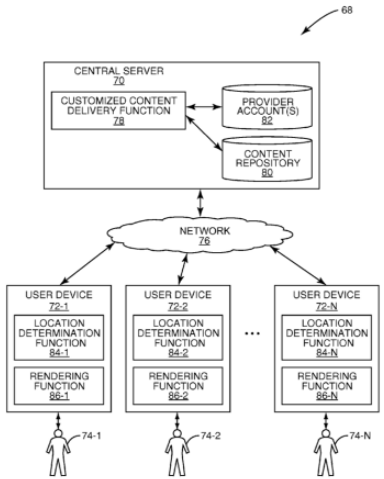
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| |  <br>*FIG. 5*<br>Sanctis ’837 at Fig. 5. |

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| |  <br>*FIG. 6*<br>Sanctis ’837 at Fig. 6.<br>  <br>*FIG. 7*<br>Sanctis ’837 at Fig. 7.<br>“The mobile alert preferences 18 include at least contact information for at least one registered mobile device (e.g., a telephone number or email address of the mobile device) and can further include a designation of at |

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| | least one individual or group of products or services about which the user is interested in receiving alerts via the registered mobile device. The m-commerce server 10 accordingly preferably provides a subscriber interface through which the user can utilize a mobile device 30 and/or a conventional computer to designate a product or service of interest to that user. The designation can specify a range or group of products or services (e.g., automobiles, golf clubs, or discounted items) or can identify a specific product or service, for example, by catalog number, SKU, model number, or simply by description. The m-commerce server 10 can also store one or more designations individually for each user or can store such designations for groups of users.” Sanctis ’837 at [0028].<br><br>“Optionally, the account information stored within the user database 16 for each user can additionally include, for example, a user's login ID and associated password, physical mailing address, e-mail address, and payment information (e.g., bank account or credit card information). In addition, the account information can describe the hardware, software, and/or program products within the user's registered mobile device and a commerce history indicating what products and services have been advertised to the user via the registered mobile device and the user's previous m-commerce purchases.” Sanctis ’837 at [0029].<br><br>“Also, as shown in FIG. 7, and as will be understood by those skilled in the art, the mobile devices 30 can download client application software 41 to be stored in memory, e.g., flash memory 40, of the mobile device 30 and can include mobile device enhancement program product 42 or software and application program interface program product or software from an input/output having download 48, e.g., wireless or hardwire, capabilities associated with the mobile device 30 via a communication link 26 with another computer or the server 10, or be provided with client application program product or software upon purchase of the mobile device, to enhance client communication capabilities to the m-server 10, to enhance GUI displays to the user, and to enhance other features 44 for the user as a set of program instruction as understood by those skilled in the art and as described herein, such as mobile alerts, make purchase consummation, gathering account information, viewing detail on product, viewing past orders, shipment tracking, and security encryption.” Sanctis ’837 at [0038].<br><br>“Because this embodiment of the invention only transmits mobile alerts to users that have subscribed to the mobile alert service and have indicated a preference for receiving information about the featured product(s), user response to receipt of the mobile alert is likely to be favorable.” Sanctis ’837 at [0039].<br><br>“Application programming interfaces (APIs) to existing relational database and mass email sender of product or service suppliers can allow the Mobile Alert system to get subscriber email addresses and product information. Features Consumer Features” Sanctis ’837 at [0058]. |

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| | “After subscribing for mobile alerts, members can be sent the next regularly scheduled alert(s). Subscription cancellations can be processed as quickly as possible. Members, however, can receive that day's alert, depending on the time of the cancellation relative to the when the mailing list is collected.” Sanctis ’837 at [0061].<br><br>“As shown in FIG. 5, one embodiment of a method of facilitating wireless mobile e-commerce constructed in accordance with the present invention starts as indicated at step 501, and permits users to designate user preferences in a data storage (e.g., having one or more databases 14) associated with a server 10 having a program product, as depicted at step 503. ” Sanctis ’837 at [0112].<br><br>“The method yet further can include utilizing the server 10 to provide a user interface through which the user can utilize the mobile device 30 to establish a user account having a user login ID and associated password, a shipping address, and payment information, and storing commerce history of the user indicating what products have been solicited to and purchased by the user via the mobile device 30.” Sanctis ’837 at [0116].<br><br>“FIG. 6 illustrates another embodiment of a method of facilitating wireless mobile e-commerce. The method, for example, starts as indicated at step 601, and includes registering a user (step 603) at a mobile server 10 via a mobile device 30 to provide a registered user interface through which the user establishes a registered user account having a user login ID and associated password, a shipping address, payment information. As illustrated at step 605, a mobile server 10 is used to establish an encrypted, direct link with the registered user starting an application on the mobile device 30 and automatically sizing a mobile e-commerce content for display on the mobile device 30.” Sanctis ’837 at [0117].<br><br>“Step 605 may include utilizing an application programming interface at the mobile device 30 and encrypting the mobile e-commerce content, while step 609 can include browsing images, data, and pricing for products.” Sanctis ’837 at [0118].<br><br>“The wireless carrier can further incentivize its customers to subscribe to the Mobile Alert service by offering discounted communication services for subscribers to the Mobile Alert service.” Sanctis ’837 at [0120].<br><br>*See also* Sanctis ’837 at [0032], [0036], [0040], and [0044]. |

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| |  <br>FIG. 16A<br>Busch ’815 at Fig. 16A.<br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br>“For purposes of illustration and without limitation, if the mobile device is interfaced with Starbucks'® payment system or if the mobile device recently visited the Starbucks® website (or a computer operated by the user under an account associated with the mobile device) and subsequently it appears that the mobile device's location may correspond to Starbucks® or one of several stores adjacent to the particular Starbucks® location, it may be determined that the user is currently visiting the Starbucks® near their reported location. Alternatively, the system may provide increased weighting to Starbucks® when determining the location of the mobile device.” Busch ’815 at [0348]. |

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| |  <br>*FIG. 11*<br>Svendsen ’073 at Fig. 11.<br>“In another exemplary embodiment, the user device 72-1 may be a set-top box, and the request may be an automatic request by the user device 72-1 for advertisements to late-bind to video content being viewed or requested by the user 74-1. The customized content delivery function 78 may then select one or more advertisements and deliver or cause delivery of the advertisements to the user device 72-1. The rendering function 86-1 may then perform a late-binding process to insert the advertisements into the video content presented to the user 74-1. In this example, the advertisements may be commercials such as those included in traditional television programming. Note that these two exemplary embodiments are illustrative and not intended to limit the scope of the present invention. ” Svendsen ’073 at 14:44–57.<br>*See also* Svendsen ’073 at Fig. 14, 3:64–4:23, 14:10–17, 14:35–39, and 15:47–67.<br>“The Xtify API provides a simple interface for a web content provider to access a user's location. This API uses a REST interface and XML as the message format. The method for querying a user's location requires the content provider to include two parameters, one identifying the application and the other identifying the particular user associated with the location query.” Xtify - API Overview at 1. |

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| | “The API allows a web application to query Xtify for a particular user's location. Therefore, there are two preparatory steps to use the API: register an application and add users to that application.” Xtify - API Overview at 1.<br><br>“Profiles and App Registration<br><br>The very first step is to provide an email address and create an Xtify account. Doing so activates the fifth link of the top navigation bar: My Profile. This page is the central repository of all your information: any detail you provide about yourself and a list of your registered applications. You can add, delete, edit, or just track any of those applications from within your profile.<br><br>Of course, the application listing will be empty at the start. So the next step is to register your first web app. We ask for a handful of identifying items of information: the application's name, its URL, the IP range from which all queries will be made, and any description you want to add. Here the fields we require and the reasons for each.<br><br>As soon as the registration goes through, the application appears in your profile listing with all its info and one more line: the Application Key. This is a string of alphanumeric characters that uniquely identifies your application and is crucial in using the API — our next topic.” Xtify - Xtify Overview at 1.<br><br>“Xtify is a REST web service, so you can access its functionality with a single URL query. You provide just two identifiers: the Application Key we provided and an ID for the user whose location you need. And in keeping with the goal of simplicity, you get to define every user ID. If your site already maintains unique login names, there is no reason to add another layer of data; just use those.” Xtify - Xtify Overview at 1.<br><br>“With all their troubles, mobile software has at least one advantage over its web-based brethren: desktop presence. That is, a mobile program has an icon right on each phone's screen, giving it a visual presence far stronger than any web application that depends on a browser. When you register your application for Xtify, though, you can also upload an icon of your own. When your users download the Xtify client (that tracks location), they also receive your icon on their phone's desktop as a mobile bookmark to your web application. The result is that the download appears branded as your application, not ours. We give you the Xtify software, and you get to wrap it as your own.” Xtify - Why Xtify at 1.<br><br>“Step 2: Register Your Application<br><br>Once you register your application, you will be given a unique key that you will use to query the Xtify Location API.” Xtify - QuickStart at 1. |

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| | “Step 3: Provide a link for users to download the Xtify client.<br><br>You will place a special download link on your website that includes your Application ID and a UNIQUE identifier you provide for each user download. Be sure not to use the same user key for every download as this will disable all previous users with that key.” Xtify - QuickStart at 1.<br><br>“Last week, Steve Jobs announced that 60 million iPhone apps had been downloaded, averaging 2 million per day. While there are questions of whether these stratospheric download numbers translate to equally impressive usage numbers, some wondered how those apps will monetize (particularly the very popular free ones). The overwhelming case for most online applications, whether those featured on Facebook, or those syndicated through widgets throughout the blogosphere, is through ads. So how exactly do ads on iPhone apps work?” Menayan 2008 at 1.<br><br>“There are already several ad network/platforms available for iPhone apps. Here’s the current list of offerings:<br><br>• Crisp Wireless - currently creates banners + microsites; used by the New York Times and Washington Post apps<br><br>• PurpleTalk - allows creation of customizable text banners; features ad exchange “Partner Network”<br><br>• AppLoop - claims to be the first real-time, location-based mobile advertising network<br><br>• Pinch Media - widely-used ad network on dozens of iPhone apps<br><br>• Medialets - offers CPM, CPC and CPA advertising run natively through iPhone apps<br><br>• AdMob -offers rich-media (video-, map- and Apple App Store-integrated) banner ads on iPhone apps; also has an impressive list of signed clients” Menayan 2008 at 1.<br><br>“Here’s an example of Crisp Wireless’s ad for Westin Hotels on the New York Times app:<br><br>[Image]<br><br>The banner shows up towards the bottom of the front page of the app, and 1s, at least in this case, visually contrastive.” Menayan 2008 at 1–2. |

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| |  <br>Menayan 2008 at 2.<br>“About AppLoop<br>AppLoop is an advertising and analytics solution for mobile iPhone applications. Founded by two regular guys in the Silicon Valley, AppLoop provides a rich, analytics-based service for advertisers and developers looking to engage with mobile platforms.<br>AppLoop was founded in June of 2008 by Eric Kerr and Jacob Eiting with one simple goal in mind: Make advertising not suck.<br>Our blog is a great way to keep updated on AppLoop as we continually grow and add new features.” AppLoop.com: About at 1.<br>“• Precisely Target your ads based on location and context.<br>• Advanced Statistics report the performance of all your advertising campaigns.<br>• Engage dedicated, valuable, and near-by users from the palm of their hand.<br>Get Started |

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| | • Bring your advertising strategy to the next level with location-based mobile advertising, Why spend money advertising to people sitting on their couch or at a computer desk? Mobile application users are active and ready to spend money.” AppLoop.com: Advertisers at 1.<br><br>“AppLoop. On a phone near you.<br><br>Posted by eric on Tuesday, July 15, 2008 at 5:39 AM<br><br>It is with great pleasure that I announce our public launch on the iPhone. We have been hard at work since our announcement on TechCrunch. Today, we’re ready for business:Advertise in iPhone applications today.” AppLoop.com: Blog at 2.<br><br>“Application Developers<br><br>AppLoop Analytics<br><br>The analytics service allows you to to track precisely where, when, and how your applications are being used. Track your earnings, growth, and engagement over time.” AppLoop.com: Developers at 1.<br><br>“For Advertisers<br><br>• Precisely Target your ads based on location and context to reach the most relevant users, and maximize click through rates.<br><br>• Advanced Statistics report the performance of your advertising campaigns, keeping you informed.<br><br>• Engage dedicated, valuable, near-by customers most relevant to your business.” AppLoop.com: Home at 1.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

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| [6e] at least one instruction to establish a plurality of perimeters defining a plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to establish a plurality of perimeters defining a plurality of geographic areas.” For example:<br>*See* above at row [1b].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6f] at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application program types and at least one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application program types and at least one of the plurality of geographic areas.” For example:<br>*See* above at row [1c].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6g] at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas.” For example:<br>*See* above at row [1d]. |

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| | To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6h] at least one instruction to provide the sponsor a response to the request; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to provide the sponsor a response to the request.” For example:<br>*See* above at row [1e].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6i] at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas.” For example:<br>*See* above at row [1f].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

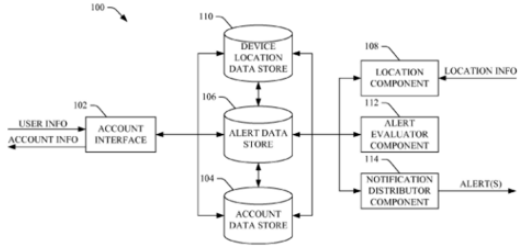
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| [6j] at least one instruction to receive, from the sponsor, content to be delivered to registered application programs having target locations contained within the selected one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to receive, from the sponsor, content to be delivered to registered application programs having target locations contained within the selected one of the plurality of geographic areas.” For example:<br><br>*See* above at row [1g].<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6k] at least one instruction to receive a request from a registered application program for content to be used within the registered application program; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to receive a request from a registered application program for content to be used within the registered application program.” For example:<br><br>*See* above at row [1h].<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6l] at least one instruction to select content associated with at least one of the plurality of sponsors, to be delivered to the registered application program of a specific type, in accordance with a | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to select content associated with at least one of the plurality of sponsors, to be delivered to the registered application program of a specific type, in accordance with a content delivery reservation associating the at least one sponsor with a geographic area and a registered application program type.” For example:<br><br>*See* above at row [1j]. |

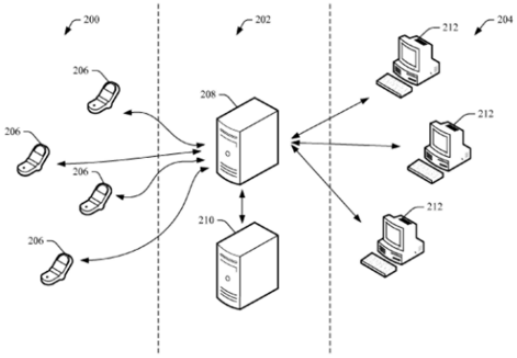
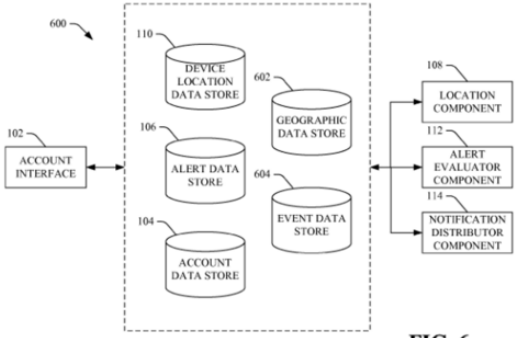
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| content delivery reservation associating the at least one sponsor with a geographic area and a registered application program type; and | To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [6m] at least one instruction to provide the selected content to the registered application program. | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to provide the selected content to the registered application program.” For example:<br>*See* above at row [1k].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 7[pre]. The system of claim 6, wherein the program of instructions further comprises: | The following prior art expressly or inherently discloses and renders obvious “[t]he system of claim 6.” *See* claim 6 limitations above.<br>*See* above at row 1[pre]. |
| [7a] at least one instruction to record a request identifier associated with the request; and | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to record a request identifier associated with the request.” For example:<br>*See* above at row [2a].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity |

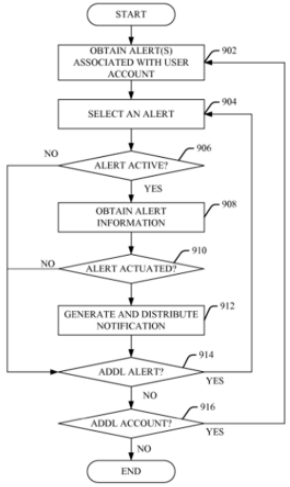
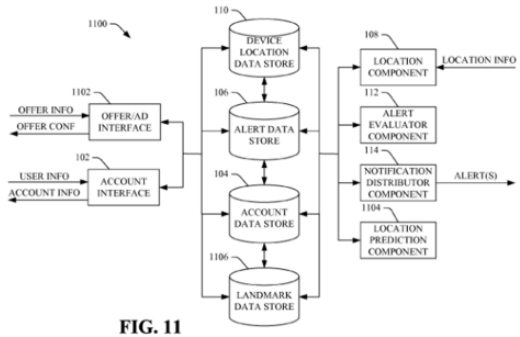
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| | contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [7b] at least one instruction to provide the request identifier to the registered application program. | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to provide the request identifier to the registered application program.” For example:<br>*See* above at row [2b].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 8[pre]. The system of claim 7, wherein the program of instructions further comprises: | The following prior art expressly or inherently discloses and renders obvious “[t]he system of claim 7.” *See* claim 7 limitations above.<br>*See* above at row 1[pre]. |
| [8a] at least one instruction to receive information related to user interaction with the provided content, the information including the request identifier; and | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to receive information related to user interaction with the provided content, the information including the request identifier.” For example:<br>*See* above at row [3a].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been |

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| | within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [8b] at least one instruction to provide additional content to the registered application in response to the received information. | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to provide additional content to the registered application in response to the received information.” For example:<br>*See* above at row [3b].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 9[pre]. The system of claim 6, wherein the program of instructions further comprises: | The following prior art expressly or inherently discloses and renders obvious “[t]he system of claim 6.” *See* claim 6 limitations above.<br>*See* above at row 1[pre]. |
| [9a] at least one instruction to determine whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location; and | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to determine whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location.” For example:<br>*See* above at row [4a].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, |

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| | would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [9b] at least one instruction to increase the predetermined radial distance in response to the at least one instruction to determine. | The following prior art expressly or inherently discloses and renders obvious "at least one instruction to increase the predetermined radial distance in response to the at least one instruction to determine." For example:<br>*See* above at row [4b].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 10[pre]. The system of claim 6, wherein the program of instructions further comprises: | The following prior art expressly or inherently discloses and renders obvious "[t]he system of claim 6." *See* claim 6 limitations above.<br>*See* above at row 1[pre]. |
| [10a] at least one instruction to reserve a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to registered application programs and having a target location contained within the specific one of the plurality of geographic areas. | The following prior art expressly or inherently discloses and renders obvious "at least one instruction to reserve a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to registered application programs and having a target location contained within the specific one of the plurality of geographic areas." For example:<br>*See* above at row [5a].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, |

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| | would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 11[pre]. A non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising: | To the extent the preamble is limiting, the following prior art expressly or inherently discloses and renders obvious “[a] non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions.” See limitations [11a] – [11j] below. Also, for example:<br>“The subject disclosure pertains to systems and methods for facilitating provision of location based alerts or notifications to a plurality of mobile devices. An alert system can manage a set of accounts corresponding to the plurality of mobile devices. User accounts can include permissions controlling access to location information for the corresponding mobile devices. A single user can control multiple accounts by creating an independent account and one or more related dependent accounts controlled by the independent account. A user account can include a set of user-defined alerts triggered by the juxtaposition of users, geographic locations and/or events. Alerts delivered to a mobile device can include a simple text message and/or actionable data, such as location information, phone numbers and the like.” Hughes ’666 at Abstract.<br>  <br><br>FIG. 1<br>Hughes ’666 at Fig. 1. |

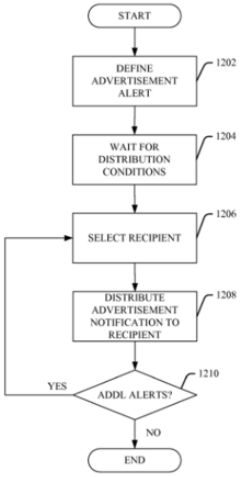
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| |  <br><br>FIG. 2<br>Hughes ’666 at Fig. 2.<br>  <br><br>FIG. 6<br>Hughes ’666 at Fig. 6. |

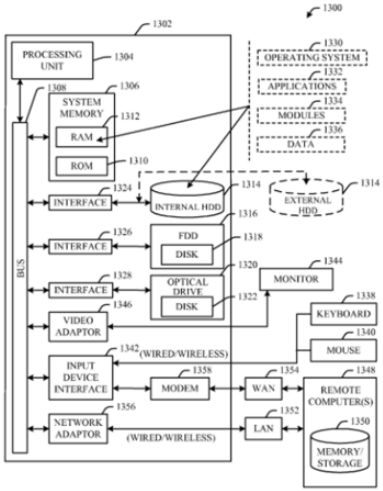
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| |  <br>**FIG. 9**<br>Hughes ’666 at Fig. 9.<br>  <br>**FIG. 11**<br>Hughes ’666 at Fig. 11. |

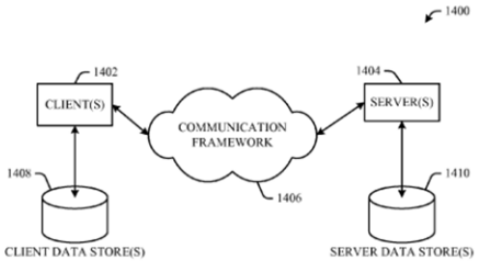




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| |  <br>**FIG. 12**<br>Hughes ’666 at Fig. 12. |

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| |  <br>**FIG. 13**<br>Hughes ’666 at Fig. 13. |

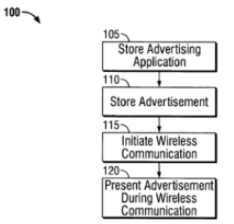
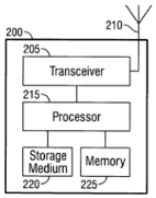
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| |  <br>**FIG. 14**<br>Hughes ’666 at Fig. 14.<br>“An alert for an individual account can be defined based upon location information including, but not limited to, location of the mobile device corresponding to the account, location of other enrolled mobile devices, location of an event and combinations thereof.” Hughes ’666 at [0009].<br>“As used herein, the terms “component,” “system” and the like are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on computer and the computer can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.” Hughes ’666 at [0028].<br>“Furthermore, the disclosed subject matter may be implemented as a system, method, apparatus, or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof to control a computer or processor based device to implement aspects detailed herein. The term “article of manufacture” (or alternatively, “computer program product”) as used |

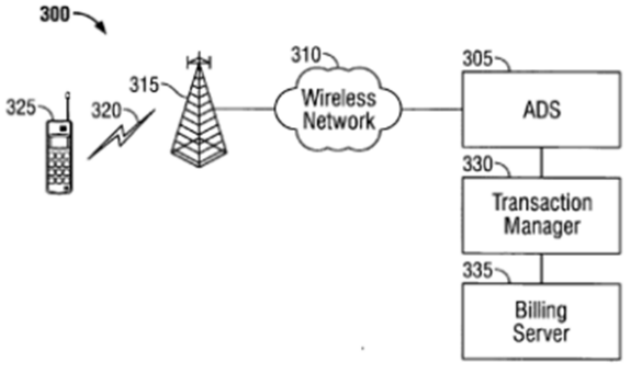
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| | herein is intended to encompass a computer program accessible from any computer-readable device, carrier, or media. For example, computer readable media can include but are not limited to magnetic storage devices (e.g., hard disk, floppy disk, magnetic strips . . . ), optical disks (e.g., compact disk (CD), digital versatile disk (DVD) . . . ), smart cards, and flash memory devices (e.g., card, stick).” Hughes ’666 at [0030].<br><br>“Referring now to FIG. 1, a system 100 for facilitating provision of location based alerts is illustrated.” Hughes ’666 at [0033].<br><br>“Location information for enrolled mobile devices can be maintained in a device location data store 110. Alternatively, location information for each mobile device can be stored with account information for the mobile device and maintained in the account data store 104. The device location data store 110 (or account data store 104) can maintain a history of previous location information for the mobile devices. The location information can include a timestamp indicating the time at which the location information was generated or recorded.” Hughes ’666 at [0036].<br><br>“Referring now to FIG. 2, an exemplary system for facilitating provision of location based notifications is illustrated. The system can include a set of mobile devices 200, an alert system 202 that manages alerts for the set of mobile devices and a set of terminals 204 that can connect to the alert system 202 to create and manage accounts and alerts associated with the set of mobile devices 200. The set of mobile devices 200 can include any number of mobile devices 206. Mobile devices 206 can include laptops, personal digital assistants (PDAs), cell phones, smartphones, devices with Wi-Fi and the like. Location information for the mobile devices 206 can be provided to the alert system 202.” Hughes ’666 at [0039].<br><br>“The alert system 202 can include a network server 208 (e.g., a HTTP server) and a data store server 210 (e.g., a database server).” Hughes ’666 at [0040].<br><br>“The data store server 210 can manage and support location, account and alert information. The network server 208 can allow users to access account information maintained in the data store server 210.” Hughes ’666 at [0040].<br><br>“Referring now to FIG. 6, an exemplary alert system 600 is illustrated.” Hughes ’666 at [0066].<br><br>“FIG. 8 is an exemplary display screen 800 for defining an alert. Here, a user has elected to create an alert defined by proximity of a person to a particular type of place. ” Hughes ’666 at [0078]. |

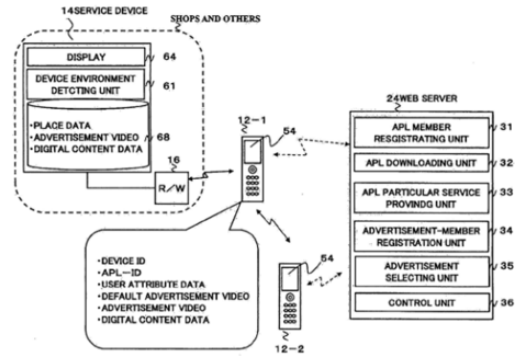
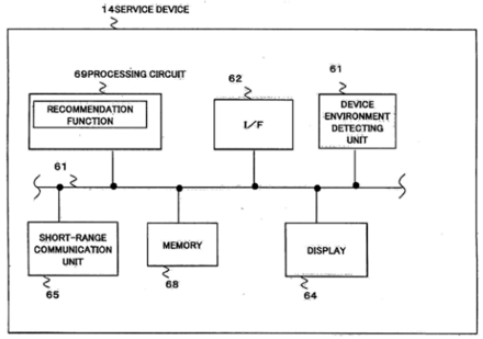
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| | “Alerts can also be used in an advertising context. Typically, notifications generated by advertisement alerts are distributed as mobile devices approach a location, generally the location of the vendor. ” Hughes ’666 at [0083].<br><br>“In one case, the system can automatically send advertisements to users based upon the conditions of the advertisement alert and without allowing users to opt out of receiving the advertisement. In this case, the alert system may be provided to users without charge. The system provider can receive fees from vendors in return for distributing advertisements. The total number and/or type of advertisement notifications a user receives can be limited to avoid excessive distractions.” Hughes ’666 at [0084].<br><br>“Referring now to FIG. 10, an exemplary display screen for defining an advertisement alert is illustrated.” Hughes ’666 at [0087].<br><br>“Referring now to FIG. 11, an alert system 1100 is illustrated that allows vendors to purchase advertisements.” Hughes ’666 at [0088].<br><br>“The alert system 1100 can include an offer or advertisement interface 1102 that allows vendors to define and purchase advertisement alerts. Vendors can specify text to be included in the advertisement notification, a geographic location or region associated with the advertisement alert and a category or classification for the advertisement alert. Categories can describe the goods or services offered by the vendor. For example, movie theater advertisements can be classified as entertainment, or more specifically as movies, while an advertisement alert for a restaurant can be classified as dining.” Hughes ’666 at [0088].<br><br>“Referring now to FIG. 12, a methodology for creating advertisement alerts and distributing advertisement notifications is illustrated.” Hughes ’666 at [0092].<br><br>“Additionally, it should be further appreciated that the methodologies disclosed throughout this specification are capable of being stored on an article of manufacture to facilitate transporting and transferring such methodologies to computers. The term article of manufacture, as used, is intended to encompass a computer program accessible from any computer-readable device, carrier, or media.” Hughes ’666 at [0100].<br><br>“While the subject matter has been described above in the general context of computer-executable instructions of a computer program that runs on a computer and/or computers, those skilled in the art will recognize that the system and methods disclosed herein also may be implemented in combination with other program modules. Generally, program modules include routines, programs, components, data structures, etc. that perform particular tasks and/or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the inventive methods may be practiced with other computer system configurations, |

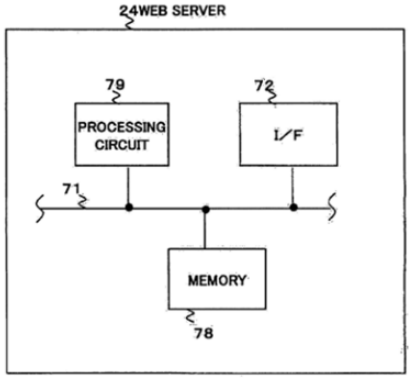
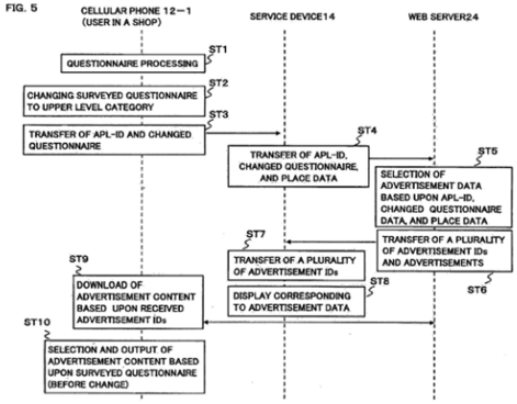
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| | including single-processor or multiprocessor computer systems, mini-computing devices, mainframe computers, as well as personal computers, hand-held computing devices (e.g., personal digital assistant (PDA), phone, watch . . . ), microprocessor-based or programmable consumer or industrial electronics, and the like. The illustrated aspects may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. However, some, if not all aspects of the systems and methods described herein can be practiced on stand-alone computers. In a distributed computing environment, program modules may be located in both local and remote memory storage devices.” Hughes ’666 at [0101].<br><br>“With reference again to FIG. 13, the exemplary environment 1300 for implementing various aspects of the embodiments includes a mobile device or computer 1302, the computer 1302 including a processing unit 1304, a system memory 1306 and a system bus 1308. The system bus 1308 couples system components including, but not limited to, the system memory 1306 to the processing unit 1304. The processing unit 1304 can be any of various commercially available processors. Dual microprocessors and other multi-processor architectures may also be employed as the processing unit 1304.” Hughes ’666 at [0102].<br><br>“The system memory 1306 includes read-only memory (ROM) 1310 and random access memory (RAM) 1312. A basic input/output system (BIOS) is stored in a non-volatile memory 1310 such as ROM, EPROM, EEPROM, which BIOS contains the basic routines that help to transfer information between elements within the computer 1302, such as during start-up. The RAM 1312 can also include a high-speed RAM such as static RAM for caching data.” Hughes ’666 at [0103].<br><br>“The computer or mobile device 1302 further includes an internal hard disk drive (HDD) 1314 (e.g., EIDE, SATA), which internal hard disk drive 1314 may also be configured for external use in a suitable chassis (not shown), a magnetic floppy disk drive (FDD) 1316, (e.g., to read from or write to a removable diskette 1318) and an optical disk drive 1320, (e.g., reading a CD-ROM disk 1322 or, to read from or write to other high capacity optical media such as the DVD). The hard disk drive 1314, magnetic disk drive 1316 and optical disk drive 1320 can be connected to the system bus 1308 by a hard disk drive interface 1324, a magnetic disk drive interface 1326 and an optical drive interface 1328, respectively. The interface 1324 for external drive implementations includes at least one or both of Universal Serial Bus (USB) and IEEE 1194 interface technologies. Other external drive connection technologies are within contemplation of the subject systems and methods.” Hughes ’666 at [0104].<br><br>“The drives and their associated computer-readable media provide nonvolatile storage of data, data structures, computer-executable instructions, and so forth. For the computer 1302, the drives and media accommodate |

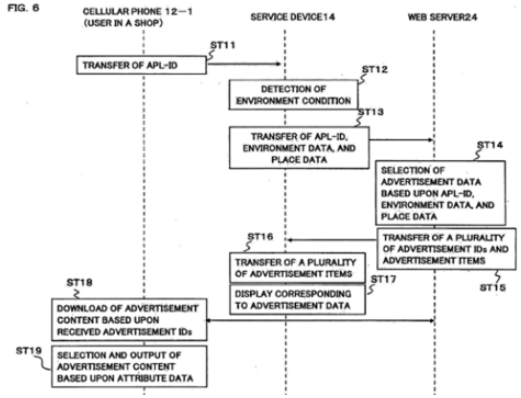
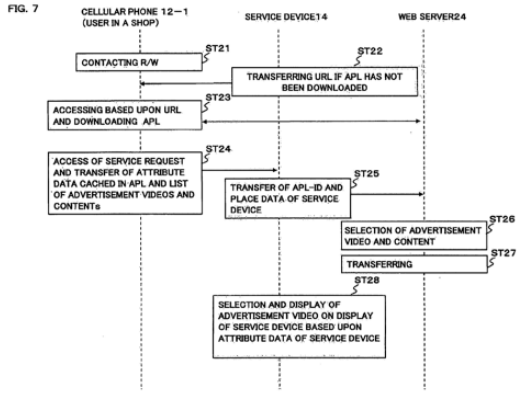
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| | the storage of any data in a suitable digital format. Although the description of computer-readable media above refers to a HDD, a removable magnetic diskette, and a removable optical media such as a CD or DVD, it should be appreciated by those skilled in the art that other types of media which are readable by a computer, such as zip drives, magnetic cassettes, flash memory cards, cartridges, and the like, may also be used in the exemplary operating environment, and further, that any such media may contain computer-executable instructions for performing the methods for the embodiments of the data management system described herein.” Hughes ’666 at [0105].<br><br>“A number of program modules can be stored in the drives and RAM 1312, including an operating system 1330, one or more application programs 1332, other program modules 1334 and program data 1336. All or portions of the operating system, applications, modules, and/or data can also be cached in the RAM 1312. It is appreciated that the systems and methods can be implemented with various commercially available operating systems or combinations of operating systems.” Hughes ’666 at [0106].<br><br>“A user can enter commands and information into the computer 1302 through one or more wired/wireless input devices, e.g., a keyboard 1338 and a pointing device, such as a mouse 1340. Other input devices (not shown) may include a microphone, an IR remote control, a joystick, a game pad, a stylus pen, touch screen, or the like. These and other input devices are often connected to the processing unit 1304 through an input device interface 1342 that is coupled to the system bus 1308, but can be connected by other interfaces, such as a parallel port, an IEEE 1194 serial port, a game port, a USB port, an IR interface, etc. A display device 1344 can be used to provide a set of group items to a user. The display devices can be connected to the system bus 1308 via an interface, such as a video adapter 1346.” Hughes ’666 at [0107].<br><br>“FIG. 14 is a schematic block diagram of a sample-computing environment 1400 with which the systems and methods described herein can interact. The system 1400 includes one or more client(s) 1402. The client(s) 1402 can be hardware and/or software (e.g., threads, processes, computing devices). The system 1400 also includes one or more server(s) 1404. Thus, system 1400 can correspond to a two-tier client server model or a multi-tier model (e.g., client, middle tier server, data server), amongst other models. The server(s) 1404 can also be hardware and/or software (e.g., threads, processes, computing devices). One possible communication between a client 1402 and a server 1404 may be in the form of a data packet adapted to be transmitted between two or more computer processes. The system 1400 includes a communication framework 1406 that can be employed to facilitate communications between the client(s) 1402 and the server(s) 1404. The client(s) 1402 are operably connected to one or more client data store(s) 1408 that can be employed to store information local to the client(s) 1402. Similarly, the server(s) 1404 are operably connected to one or more |

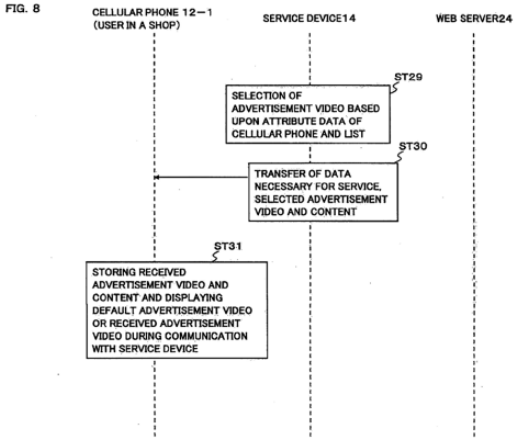
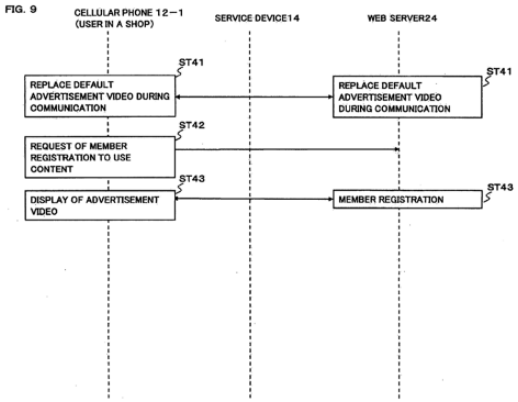
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| | server data store(s) 1410 that can be employed to store information local to the servers 1404.” Hughes ’666 at [0113].<br>  <br><br>FIG. 1<br>  <br><br>FIG. 2<br>Macaluso ’238 at FIG. 2. |

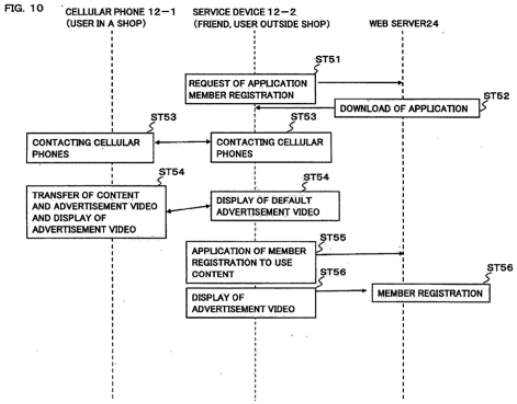
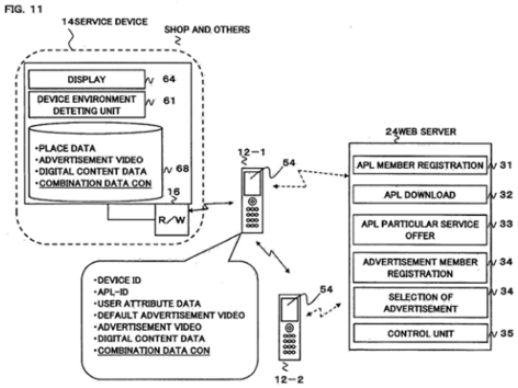
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| |  <br>FIG. 3<br>Macaluso ’238 at FIG. 3.<br>“FIG. 2 is a block diagram of a mobile phone 200 that may be used in connection with the described techniques. The mobile phone 200 includes a transceiver 205 connected to an antenna 210 for communicating voice and data to and from a remote server, wireline telephone connection, and/or another mobile device through a wireless communication system in accordance with conventional techniques. For example, the wireless communication system may be a CDMA, GSM, or UMTS network, or any other type of mobile network. The transceiver 205 is connected to a processor 215 that controls the operation of the mobile phone 200, including the operation of the transceiver 205. A storage medium 220, which may be removable, read-only, or read/write media and may be magnetic-based, optical-based, semiconductor-based media, or a combination of these, may store operating system software for the mobile phone 200. A memory 225 may store additional, less vital information, such as applications that may be loaded into the mobile phone 200, including an application for displaying advertisements on the mobile phone 200. In addition, a cache containing one or more advertisements may be stored in the memory 225. Both the memory 225 and the storage medium 220 are connected to the processor 215. The processor 215 may operate in accordance with software, applications, or other instructions stored in the memory 225 and/or the storage medium 220.” Macaluso ’238 at [0025].<br>“A service providing method, wherein a mobile communication device changes surveyed questionnaire data to upper level category data and transfers the changed data to service processing device and Web server, the service processing device transfers place data around the service processing device to the Web server, the |

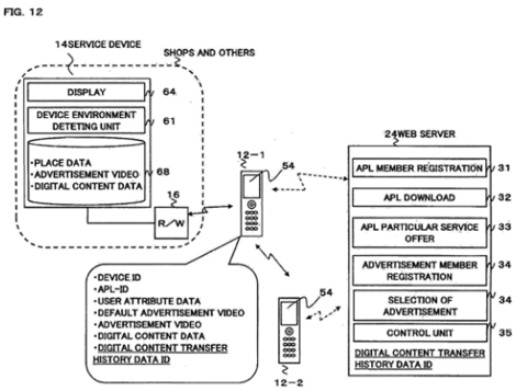
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| | Web server selects advertisement data that matches user's attitudes and the place, based upon the surveyed questionnaire data and the place data, and the service processing device and the mobile communication device displays advertisement images corresponding to the advertisement data received from the Web server on a display.” Kinoshita ’866 at Abstract.<br>FIG. 1<br>  <br><br>Kinoshita ’866 at Fig. 1.<br>FIG. 3<br>  <br><br>Kinoshita ’866 at Fig. 3. |

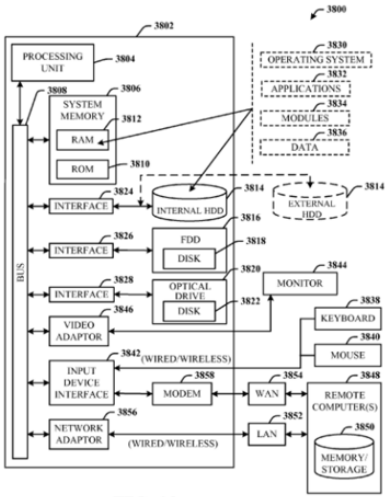
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| | FIG. 4<br>  <br><br>Kinoshita ’866 at Fig. 4.<br>  <br><br>Kinoshita ’866 at Fig. 5. |

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| |  <br>Kinoshita ’866 at Fig. 6.<br>  <br>Kinoshita ’866 at Fig. 7. |

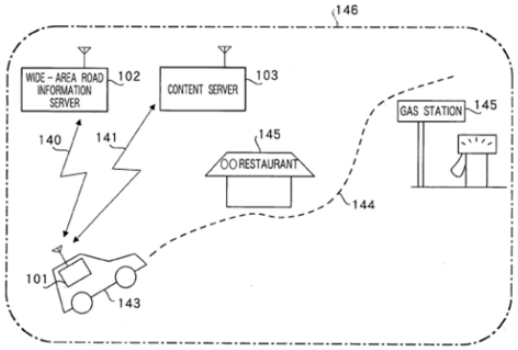
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| |  <br>Kinoshita ’866 at Fig. 8.<br>  <br>Kinoshita ’866 at Fig. 9. |

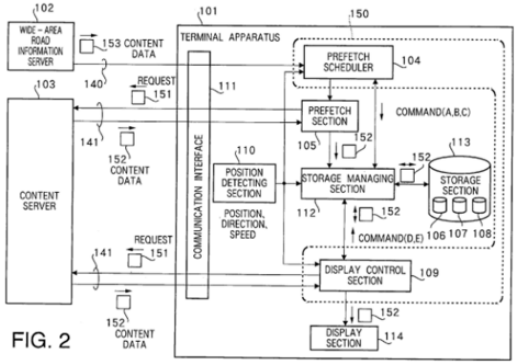
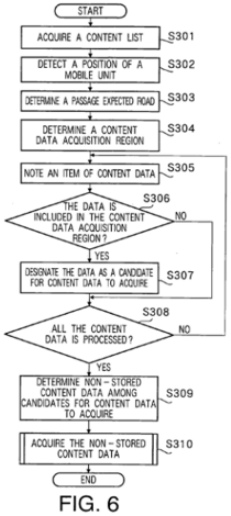
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| |  <br>Kinoshita ’866 at Fig. 10.<br>  <br>Kinoshita ’866 at Fig. 11. |

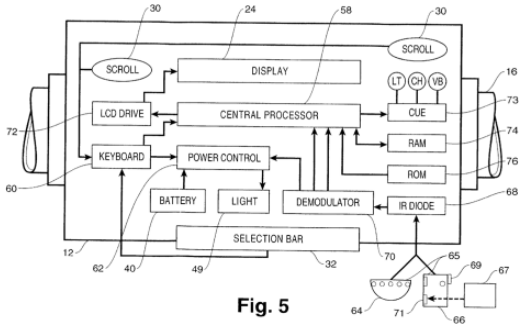
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| | FIG. 12<br>  <br><br>Kinoshita ’866 at Fig. 12.<br>“The present invention relates to a service providing method, a service processing device, and a mobile communication device that are used in a system to provide recommendation data such as advertisement data.” Kinoshita ’866 at [0002].<br>“The second aspect of the present invention is a service processing device comprising: an interface that performs short-range communication with a mobile communication device directly or indirectly; a memory that stores place data; and a controller that receives attribute data of a user or user's mobile communication device from user's mobile communication device, transfers the attribute data and the place data read out from the memory to the server, and performs announcement based upon recommendation data corresponding to the place data received from the server.” Kinoshita ’866 at [0010].<br>“The fourth aspect of the present invention is a server for providing information associated with a mobile communication device that performs short-range communication with a service processing device installed at a predetermined place, the server comprising: an interface that receives attribute data of a user or his mobile communication device and place data of a place where the service processing device is installed from the mobile communication device or the service processing device; a memory that stores recommendation data which is associated with the attribute data and the place data; and a controller that reads out, from the memory, the recommendation data which is associated with the attribute data received by the interface and the place data, and transfers the recommendation data to the mobile communication device or the service processing device through the interface.” Kinoshita ’866 at [0012]. |

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| | “FIG. 1 is a schematic view of a communication system 1 in accordance with the first embodiment of the present invention.” Kinoshita ’866 at [0025].<br><br>“The service device 14 includes, for example, a device environment detecting unit 61, an interface 62, a display 64, a short-range communication unit 65, a memory 68, and a processing circuit 69. ” Kinoshita ’866 at [0037].<br><br>“Referring to FIG. 4, the Web server 24 includes, for example, an interface 62, a memory 68, and a processing circuit 69.” Kinoshita ’866 at [0041].<br><br>“This embodiment will explain processes in which advertisement video is displayed on the displays of the cellular phone 12-1 and the service device 14 while they are communicating with each other.” Kinoshita ’866 at [0085].<br><br>“In the second process, the cellular phone 12-1 communicates with the Web server 24 after completion of the above-mentioned first process. FIG. 9 is a flowchart of a second process of a communication system 1 in accordance with a second embodiment of the present invention.” Kinoshita ’866 at [0113].<br><br>  <br><br>**FIG. 38**<br>Smith ’558 at Fig. 38. |

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| | “As used in this application, the terms “component,” “module,” “system,” and the like are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on a server and the server can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.” Smith ’558 at [0058].<br><br>“Furthermore, the one or more embodiments may be implemented as a method, apparatus, or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof to control a computer to implement the disclosed embodiments. The term “article of manufacture” (or alternatively, “computer program product”) as used herein is intended to encompass a computer program accessible from any computer-readable device, carrier, or media. For example, computer readable media can include but are not limited to magnetic storage devices (e.g., hard disk, floppy disk, magnetic strips . . . ), optical disks (e.g., compact disk (CD), digital versatile disk (DVD) . . . smart cards, and flash memory devices (e.g., card, stick).” Smith ’558 at [0060].<br><br>“Generally, program modules include routines, programs, components, data structures, etc., that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the inventive methods can be practiced with other computer system configurations, including single-processor or multiprocessor computer systems, minicomputers, mainframe computers, as well as personal computers, hand-held computing devices, microprocessor-based or programmable consumer electronics, and the like, each of which can be operatively coupled to one or more associated devices.<br><br>The illustrated aspects may also be practiced in distributed computing environments where certain tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules can be located in both local and remote memory storage devices.<br><br>A computer typically includes a variety of computer-readable media. Computer-readable media can be any available media that can be accessed by the computer and includes both volatile and nonvolatile media, removable and non-removable media. By way of example, and not limitation, computer-readable media can comprise computer storage media and communication media. Computer storage media includes both volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other |

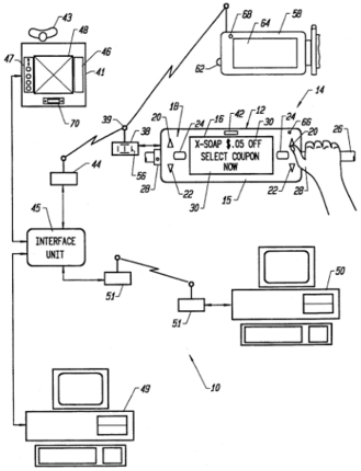
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| | memory technology, CD-ROM, digital video disk (DVD) or other optical disk storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the computer.<br><br>Communication media typically embodies computer-readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism, and includes any information delivery media. The term “modulated data signal” means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of the any of the above should also be included within the scope of computer-readable media.” Smith ’558 at [0249]–[0252].<br><br>  <br>FIG. 1<br>Sato ’965 at Fig. 1. |

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| |  <br>FIG. 2<br>Sato ’965 at Fig. 2.<br>  <br>FIG. 6<br>Sato ’965 at Fig. 6. |

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| | “Terminal apparatus 101 is, for example, a car navigation system with communication function, PDA (Personal Data Assist), notebook personal computer or the like. Further, terminal apparatus 101 may be a portable communication terminal such as a cellular telephone and PHS.” Sato ’965 at [0045].<br><br>“Wide-area road information server 102 and content server 103 are, for example, server computers with arbitrary configurations.” Sato ’965 at [0050].<br><br>“Systems and methods are described for managing geographically referenced data (GRD). The systems and methods are configured to receive a search request that includes a defined search area. An extended map is provided based on the search request. The extended map includes geographic areas within the defined search area and outside the defined search area. The systems and methods provide the GRD, which includes advertisements, contact information, review information for one or more entities, and the like. Map reference information of the GRD is provided on the extended map.” Ahn ’281 at Abstract.<br><br>  <br><br>Fig. 5<br><br>Begum ’880 at Fig. 5.<br><br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22. |

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| | “The electronic shopping cart handle of the preferred embodiment includes an internal operating system that enables the device to incorporate efficient power management in order to maximize the life of the power pack that is provided for each device. ” Begum ’880 at 4:10–14.<br><br>“Because of improved design of compact integrated chip technologies use of an integrated chip incorporating an entire computer on a chip is preferred. This selection allows the essential processor and memory unit to be extremely compact allowing the low-profile configuration of the electronic shopping cart handle described in this specification” Begum ’880 at 4:39–44.<br><br>“The invented device is a dedicated appliance computer that is capable of being reprogrammed in order to add additional features to the device as users become more sophisticated. Such features as the automatic display of advertisements at select store locations and the global updating of displayable data by wireless transmissions are described in the referenced application.” Begum ’880 at 4:53–59.<br><br>“The user interface is designed to allow the user to access all of the available data including stored promotional graphics by a control system that is intuitive. Furthermore, the hybrid system devised for automatic display of promotional graphics, is designed to incorporate features that are beneficial in facilitating automatic update of the promotional advertisements.” Begum ’880 at 4:65–5:4.<br><br>“Referring to the schematic illustration of FIG. 5, the display unit 12 contains a central processor 58 which is an integrated circuit chip for programs to control the system operation. The processor receives and directs data for operation of the display unit, and is preferably a state of the art chip, such as an Intel 286 or more expensive 386 chip. Although more advanced logic circuits are not necessary for the contemplated informational and operational tasks involved in the shopping cart handle, advanced state of the art processors can be used to advantage for power management. The processor 58 connects to a standard keyboard chip 60, which as noted, may be integrated into the processor chip. The keyboard chip 60 includes the circuity necessary to interpret signals from the scroll buttons 30 or the selection bar 32.” Begum ’880 at 8:10–24.<br><br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47. |

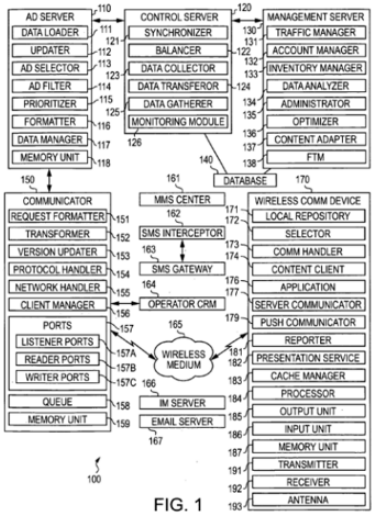
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| | “The trigger and data signals are demodulated in a converter circuit 70 and passed to the central processor 58 for reprogramming the memory or activating retrieval of memory packets for display of advertising information in the display screen 24 under control of the LCD driver and controller circuit 72.” Begum ’880 at 8:48–53.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>“The product control signals may be utilized in this compare process for rapidly locating the presence or absence of a particular promotional screen graphic in memory and initiating display of either the screen graphic in memory or the screen graphic formatted from the screen graphic signal transmitted by the |

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| | transceiver unit 65. In this manner, the shopping carts that are in use, are continually updated as they pass a transceiver unit 65, such that even if an outdated ad is stored in memory, the updated ad will be presented once the shopper has arrived at the location of the promoted item. Although this system has the minor drawback of potentially storing an outdated promotional graphic in memory that is accessible by a shopper during review of the product promotion file using the display unit in an interactive mode, the system is self-correcting at the promoted product location.” Begum ’880 at 10:16–31.<br><br>“The random access memory (RAM) 74 and read only memory (ROM) 76 store the systems operations data and reprogrammable user data for displaying store directory and product information in the display screen 24.” Begum ’880 at 10:32–35.<br><br>“Although the devised shopping cart display handle will have the capabilities of a personal computer, a dedicated informational format, as schematically illustrated in FIGS. 6-10, is incorporated to ease user familiarization and encourage adoption as a shopping aid.” Begum ’880 at 10:37–41.<br><br>*See also* Begum ’880 at Abstract, Fig. 1, 1:18–38, 1:57–59, 1:60–2:5, 2:6–12, 4:33–38, 5:65–6:4, 9:12–16, 9:16–29, and 9:56–65.<br><br>  <br><br>FIG. 1 |



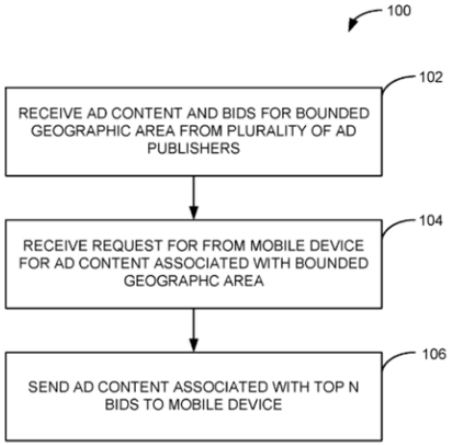


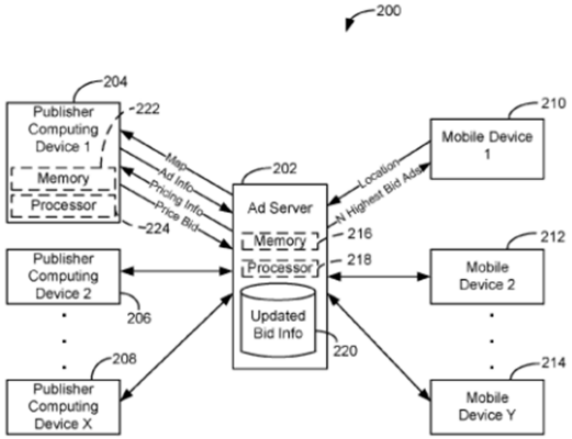
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| | Begum ’606 at FIG. 1.<br><br>“The customer display device 12 is part of a portable communication unit 14 having a control panel 15 with a display screen 16 and easily operated user controls 18, such as complementary up and down scroll buttons 20, 22, and select buttons 24” Begum ’606 at 4:17–21.<br><br>  <br><br>FIG. 1<br>Levkovitz ’852 at Fig. 1.<br><br>“In some embodiments, for example, the server may include a memory unit to store a plurality of content items from which the content item is selected.<br><br>In some embodiments, for example, the memory unit may include a volatile memory or a non-volatile memory.<br><br>In some embodiments, for example, the server is to periodically copy the content of the volatile memory into a non-volatile memory.” Levkovitz ’852 at [0012]–[0014].<br><br>“FIG. 1 schematically illustrates a block diagram of a wireless communication system 100 able to deliver content in accordance with an embodiment of the invention. System 100 may include, for example, an ad |

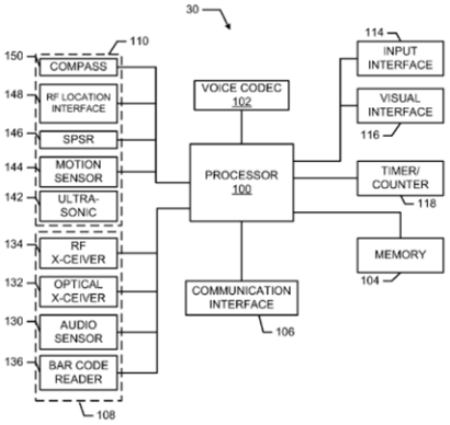
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| | server 110, a control server 120, a management server 130, a database 140, a communicator 150, and one or more wireless communication devices, e.g., a wireless communication device 170.” Levkovitz ’852 at [0094].<br><br>“Ad server 110 may include one or more servers, or a “server farm”, which may be operatively connected to communicator 150. Ad server 110 may process content requests stored in the queue 158 of communicator 150, e.g., in accordance with a pre-defined order or algorithm.” Levkovitz ’852 at [0098].<br><br>“In one embodiment, memory unit 118 may include a non-volatile memory, for example, a long term memory unit, a disk, a hard disk drive, or the like. In another embodiment, memory unit 118 may include a volatile memory, for example, a Random Access Memory (RAM), a Dynamic RAM (DRAM), a Synchronous DRAM (SD-RAM), a Flash memory, a cache memory, a buffer, a stack, a short term memory unit, or the like.” Levkovitz ’852 at [0125].<br><br>“Management server 130, control server 120, ad server 110, communicator 150, and/or other components of system 100, may be implemented, for example, using one or more computing platforms or computing devices, e.g., one or more computers or servers including a processor, a memory unit, a storage unit, an input unit, an output unit, a transmitter, a receiver, an antenna, a power source, an Operating System, software applications, and/or other suitable software components and/or hardware components.” Levkovitz ’852 at [0173].<br><br>“FIG. 2 is a schematic flow-chart of a method of wireless content delivery in accordance with an embodiment of the invention. Operations of the method may be implemented, for example, by system 100 of FIG. 1, by ad server 110 of FIG. 1, by communicator 150 of FIG. 1, by device 170 of FIG. 1, by control server 120 of FIG. 1, and/or by other suitable devices and/or systems.” Levkovitz ’852 at [0178].<br><br>“FIG. 10 is a schematic illustration of a wireless communication device 1070 in accordance with some embodiments of the invention.” Levkovitz ’852 at [0259].<br><br>“FIG. 11 is a schematic flow-chart of a method of content delivery and presentation in accordance with some embodiments of the invention.” Levkovitz ’852 at [0276].<br><br>*See also* Levkovitz ’852 at Abstract.<br><br>“Product or service information in the form of selected wireless e-commerce content is transmitted from a server to a mobile device, such as mobile telephone or personal digital assistant. The e-commerce content is transmitted either in response to an explicit user request for communication of the e-commerce content, or, in the alternative, is “pushed” to the mobile device as permitted by a user but in the absence of a specific |

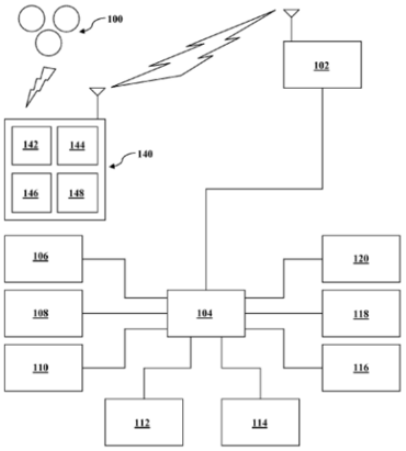
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| | request. The e-commerce content received at the mobile device is presented to a user by the mobile device in textual or graphical format in conjunction with an indication of a communication needed to consummate an e-commerce transaction. If the user desires to purchase the good or service represented by the e-commerce content, the user initiates the communication indicated by the e-commerce content.” Sanctis ’837 at Abstract.<br><br>“ In view of the foregoing and in accordance with various embodiments of the present invention, selected wireless mobile e-commerce (hereinafter, “m-commerce”) content, such as product or service information, is transmitted from a server to a mobile device, such as a mobile telephone or personal digital assistant (“PDA”). In one embodiment, for example, the m-commerce content is transmitted in response to an explicit user request for communication of the m-commerce content. The user is permitted to view an item on his or her mobile device and prompted to make a purchase (e.g., via a “buy” key or selecting an icon or toolbar on the mobile device). In another embodiment, the m-commerce content is “pushed” to the mobile device in the absence of a specific request. For example, such solicitations may occur multiple times per day, prompt the user to browse various “departments” or categories of goods or services, walk a user through a form for shopping, or combinations thereof.” Sanctis ’837 at [0008].<br><br>“The mobile devices 30 within the m-commerce environment 8 can be implemented with any portable communication device capable of over-the-air or through-the-air radio frequency (“RF”) communication, as understood by those skilled in the art, with the m-commerce server 10. For example, the mobile device 30 can be a mobile telephone, an email communication device (e.g., such as those sold under the trademark BLACKBERRY), a personal digital assistant (PDA), or other mobile device. Regardless of the embodiment, each of the mobile devices 30 preferably includes a display 32 (e.g., a liquid crystal display (“LCD”)) capable of displaying the textual and/or graphical e-commerce content distributed by the m-commerce server 10.” Sanctis ’837 at [0030].<br><br>“Also, as shown in FIG. 7, and as will be understood by those skilled in the art, the mobile devices 30 can download client application software 41 to be stored in memory, e.g., flash memory 40, of the mobile device 30 and can include mobile device enhancement program product 42 or software and application program interface program product or software from an input/output having download 48, e.g., wireless or hardwire, capabilities associated with the mobile device 30 via a communication link 26 with another computer or the server 10, or be provided with client application program product or software upon purchase of the mobile device, to enhance client communication capabilities to the m-server 10, to enhance GUI displays to the user, and to enhance other features 44 for the user as a set of program instruction as understood by those skilled in the art and as described herein, such as mobile alerts, make purchase consummation, gathering account |

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| | information, viewing detail on product, viewing past orders, shipment tracking, and security encryption.” Sanctis ’837 at [0038].<br>  <br><br>FIG. 1<br>Bussmann ’294 at FIG. 1. |

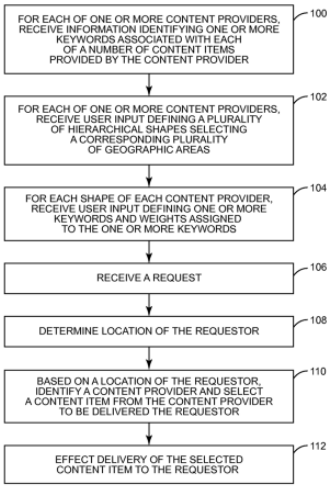
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| |  <br>FIG. 2<br>Bussmann ’294 at FIG. 2.<br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. |

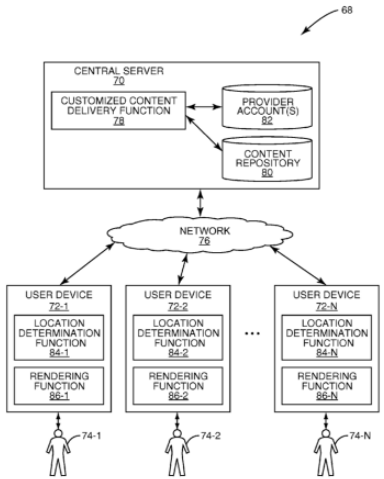
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| | Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“FIG. 2 shows an example embodiment of a location-based advertising use environment 200. Use environment 200 comprises an advertising server 202 in communication with a plurality of advertising publisher computing devices 204, 206, 208, and also with a plurality of devices 210, 212, 214 that request and receive advertising content from the advertising server 202. In the depicted embodiment, the number of advertising publisher client computing devices in communication with the advertising server 202 is illustrated as a generic number X, and the number of requesting/receiving devices is illustrated as a generic number Y, indicating that any suitable number of advertising publisher client computing devices and requesting/receiving devices may be in communication with the advertising server 202 at any time.<br><br>The advertising server 202 comprises memory 216 and a processor 218, wherein the memory 216 comprises instructions stored thereon that are executable by the processor 218 to perform the various methods of operating an advertising server disclosed herein. The advertising server 202 further comprises a database 220 that stores various items of information related to the provision of location-based advertising services. For example, the database 220 may store user account information related to the advertising publishers and/or consumer devices that utilize the system. The database 220 also may store advertising content provided by each advertising publisher, and bid information related to the advertising content. The term “updated bid information” may be used herein to describe such current bid information, as bids may be submitted and/or modified by advertising publishers on a continuous, rolling basis. The updated bid information may include such information as the geographic locations and time intervals selected by each advertising publisher for the distribution of advertising content, category information related to the type of advertising content provided by each advertising publisher and to the specific distribution services requested by the advertising publisher, |

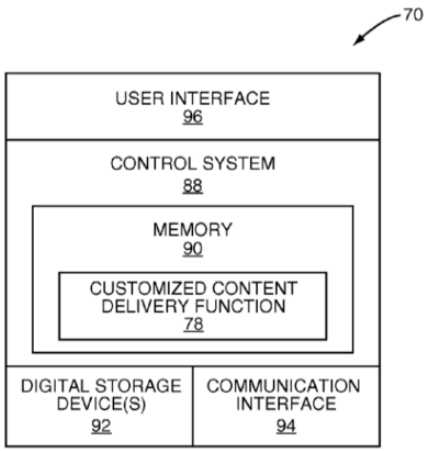
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| | pricing information related to the price paid by each advertising publisher for a desired transaction type (per view, per click-through, etc.), payment information related to the method of payment used by each advertising publisher (pre-paid credits, debit/credit card info, etc.), or any other suitable information.” Bussmann ’294 at [0012]–[0013].<br><br>FIG. 2<br><br>  <br>Mello ’479 at FIG. 2.<br><br>“FIG. 2 is a detailed block diagram of an example implementation of the PPM 30 of FIG. 1. As discussed above, the PPM 30 may be used to monitor the use of a location-based web service application by a monitored person (e.g., the monitored person 32 of FIG. 1). It may also be used to collect location information and/or motion information associated with the use of the location-based web application. In general, the PPM 30 includes electronic components configured to detect and/or collect media monitoring information, location information, and/or motion information, and to communicate the information to the central facility 60 of FIG. 1 for subsequent analyses. As shown in FIG. 2, the PPM 30 includes a processor 100, a voice coder/decoder (CODEC) 102, a memory 104, a communication interface 106, a plurality of media monitoring sensors 108, a plurality of location and motion sensors 110, an input interface 114, a visual |

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| | interface 116 and a timer/counter 118, all of which are communicatively coupled as shown.” Mello ’479 at [0036].<br><br>“It is to be understood that the example machine accessible instructions of the flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be executed by a processor, a controller and/or any other suitable processing device. For example, the example machine accessible instructions of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be embodied in coded instructions stored on a tangible medium such as a flash memory, or random access memory (RAM) associated with a processor. Alternatively, some or all of the example flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be implemented using an application specific integrated circuit (ASIC), a programmable logic device (PLD), a field programmable logic device (FPLD), discrete logic, hardware, firmware, etc. ” Mello ’479 at [0118].<br><br>  <br><br>FIG. 1<br>Busch ’815 at Fig. 1.<br><br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, |

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| | integration of location data with customer relationship management systems and systems to determining retail business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br><br>“With reference to FIG. 1 GPS satellites 100 operate to determine the location of a mobile device 140 that has a number of features available based upon the location data. The mobile device 140 provides a user interface 142, GPS receiver 144, CPU and memory 146, and radio 148. Examples of mobile device 140 include cellular phones, personal digital assistants, pagers, laptop computers, automobile navigation systems, among others. Mobile device 140 receives GPS signals and determines its location. For purposes of illustration and without limitation, this may occur solely through using the GPS system, or may occur by using a filter to combine location data from the GPS system and another system such as cell-tower-triangulation in order to obtain a more accurate location. The mobile device 140 is wirelessly coupled to an access point 102 with a built in radio 148. The access point 102 is coupled to the Internet 104 or other network. A number of other systems or services are available to the device over the Internet 104 or other network optionally including but not limited to an inventory system 106, advertisement system 108, search engine 110, mapping, business location, GIS, and routing database 112, user information database 114, advertiser information database 116, payment system 118, and phone system 120.” Busch ’815 at [0334].<br><br>“When the user is viewing an area of the map without driving directions, the mapping website or software displays locations of interest in the current view of the map. When the mapping website or software is showing search results, and the user selects a specific business location, locations of other types of businesses of interest appear on the map around the location selected.” Busch ’815 at [0379].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract. |

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| |  <br>*FIG. 1*<br>Svendsen ’073 at Fig. 1. |

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| |  <br>*FIG. 11*<br>Svendsen ’073 at Fig. 11. |

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| |  <br>***FIG. 13***<br>Svendsen ’073 at Fig. 13.<br>“The present invention relates to providing customized content to users based on their location.” Svendsen ’073 at 1:22–23.<br>“FIG. 1 is a flow chart illustrating a process for delivering customized content, or data, based on the location of a requestor according to one embodiment of the present invention.” Svendsen ’073 at 2:61–64.<br>“FIG. 11 illustrates a system 68 for customized content delivery according to one embodiment of the present invention. In general, the system 68 includes a central server 70 and a number of user devices 72-1 through 72-N having associated users 74-1 through 74-N. The central server 70 and the user devices 72-1 through 72-N are enabled to communicate via a network 76. The network 76 may be any type of Wide Area Network (WAN), Local Area Network (LAN), or the like, or any combination thereof. In addition, the network 76 may include wired components, wireless components, or both wired and wireless components. As an example, the network 76 may be the Internet.” Svendsen ’073 at 13:27–38.<br>“The central server 70 includes a customized content delivery function 78, which may be implemented in software, hardware, or a combination thereof.” Svendsen ’073 at 13:39–41. |

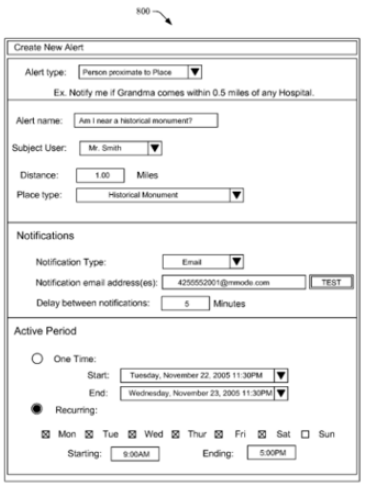
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| | “In addition, the central server 70 may include a content repository 80. For each of a number of content providers, the content repository 80 may store the content items or references to the content items provided by each of the content providers. As discussed above, the content providers may be advertisers, media content providers, or the like. As such, the content items provided by the content providers may be advertisements, media items, or the like. Lastly, the central server 70 hosts or otherwise has access to a provider accounts repository 82, which includes a provider account, or account, for each of the content providers.” Svendsen ’073 at 13:41–52.<br><br>“The system 68 of FIG. 11 may also be used for embodiments where the content providers are one or more media content providers or include both one or more advertisers and one or more media content providers.” Svendsen ’073 at 14:63–67.<br><br>“FIG. 13 is a block diagram of the central server 70 of FIG. 11 according to one embodiment of the present invention. In general, the central server 70 includes a control system 88 having associated memory 90. In this example, the customized content delivery function 78 is implemented in software and stored in the memory 90. However, the present invention is not limited thereto. The customized content delivery function 78 may be implemented in software, hardware, or a combination thereof. In addition, the central server 70 may include one or more digital storage devices 92 such as one or more hard disk drives or the like. The provider accounts repository 82 and the content repository 80 may be stored in the one or more digital storage devices 92, the memory 90, or a combination thereof. The central server 70 also includes a communication interface 94 communicatively coupling the central server 70 to the network 76 (FIG. 11). Lastly, the central server 70 may include a user interface 96, which may include components such as a display, one or more user input devices, or the like.” Svendsen ’073 at 15:28–46.<br><br>“FIG. 14 is a block diagram of the user device 72-1 of FIG. 11 according to one embodiment of the present invention. This discussion is equally applicable to the other user devices 72-2 through 72-N. In general, the user device 72-1 includes a control system 98 having associated memory 100. In this example, the rendering function 86-1 is implemented in software and stored in the memory 100. However, the present invention is not limited thereto. The rendering function 86-1 may be implemented in software, hardware, or a combination thereof. In this example, the location determination function 84-1 is implemented in hardware. For example, the location determination function 84-1 may be a GPS receiver associated with the control system 98. However, the present invention is not limited thereto. The location determination function 84-1 may be implemented in software, hardware, or a combination thereof. The user device 72-1 also includes a communication interface 102 communicatively coupling the user device 72-1 to the network 76 (FIG. 11). |

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| | Lastly, the user device 72-1 includes a user interface 104, which may include components such as, for example, a display, one or more user input devices, or the like.” Svendsen ’073 at 15:47–67.<br><br>*See also* Svendsen ’073 at 4:48–67.<br><br>“Last week, Steve Jobs announced that 60 million iPhone apps had been downloaded, averaging 2 million per day. While there are questions of whether these stratospheric download numbers translate to equally impressive usage numbers, some wondered how those apps will monetize (particularly the very popular free ones). The overwhelming case for most online applications, whether those featured on Facebook, or those syndicated through widgets throughout the blogosphere, is through ads. So how exactly do ads on iPhone apps work?” Menayan 2008 at 1.<br><br>“There are already several ad network/platforms available for iPhone apps. Here’s the current list of offerings:<br><br>• Crisp Wireless - currently creates banners + microsites; used by the New York Times and Washington Post apps<br><br>• PurpleTalk - allows creation of customizable text banners; features ad exchange “Partner Network”<br><br>• AppLoop - claims to be the first real-time, location-based mobile advertising network<br><br>• Pinch Media - widely-used ad network on dozens of iPhone apps<br><br>• Medialets - offers CPM, CPC and CPA advertising run natively through iPhone apps<br><br>• AdMob -offers rich-media (video-, map- and Apple App Store-integrated) banner ads on iPhone apps; also has an impressive list of signed clients” Menayan 2008 at 1.<br><br>“Here’s an example of Crisp Wireless’s ad for Westin Hotels on the New York Times app:<br><br>[Image]<br><br>The banner shows up towards the bottom of the front page of the app, and 1s, at least in this case, visually contrastive.” Menayan 2008 at 1–2. |

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| |  <br>Menayan 2008 at 2.<br>“About AppLoop<br>AppLoop is an advertising and analytics solution for mobile iPhone applications. Founded by two regular guys in the Silicon Valley, AppLoop provides a rich, analytics-based service for advertisers and developers looking to engage with mobile platforms.<br>AppLoop was founded in June of 2008 by Eric Kerr and Jacob Eiting with one simple goal in mind: Make advertising not suck.<br>Our blog is a great way to keep updated on AppLoop as we continually grow and add new features.” AppLoop.com: About at 1.<br>“• Precisely Target your ads based on location and context.<br>• Advanced Statistics report the performance of all your advertising campaigns.<br>• Engage dedicated, valuable, and near-by users from the palm of their hand.<br>Get Started |

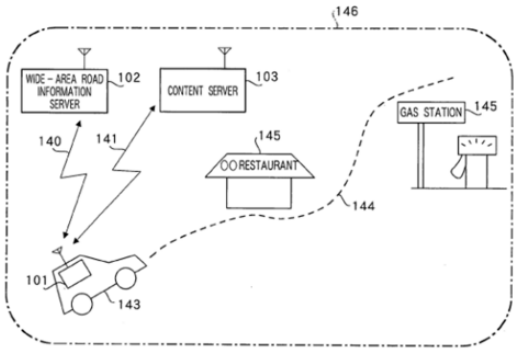
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| | • Bring your advertising strategy to the next level with location-based mobile advertising, Why spend money advertising to people sitting on their couch or at a computer desk? Mobile application users are active and ready to spend money.” AppLoop.com: Advertisers at 1.<br>“AppLoop. On a phone near you.<br>Posted by eric on Tuesday, July 15, 2008 at 5:39 AM<br>It is with great pleasure that I announce our public launch on the iPhone. We have been hard at work since our announcement on TechCrunch. Today, we’re ready for business:Advertise in iPhone applications today.” AppLoop.com: Blog at 2.<br>“Application Developers<br>AppLoop Analytics<br>The analytics service allows you to to track precisely where, when, and how your applications are being used. Track your earnings, growth, and engagement over time.” AppLoop.com: Developers at 1.<br>“For Advertisers<br>• Precisely Target your ads based on location and context to reach the most relevant users, and maximize click through rates.<br>• Advanced Statistics report the performance of your advertising campaigns, keeping you informed.<br>• Engage dedicated, valuable, near-by customers most relevant to your business.” AppLoop.com: Home at 1.<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

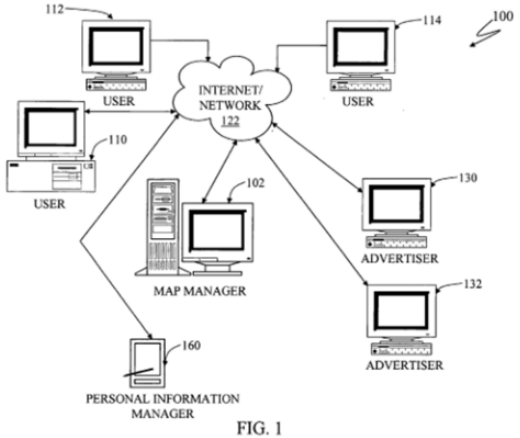
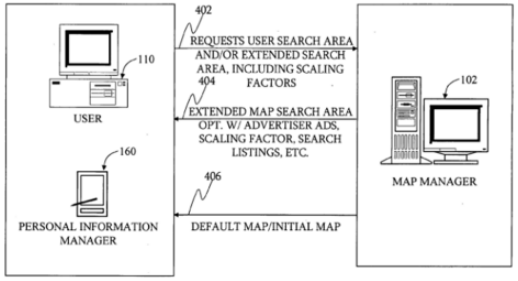
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| [11a] at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type; | The following prior art expressly expressly or inherently discloses and renders obvious “at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type.” For example:<br><br>*See* above at row [6d].<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11b] at least one instruction to establish a plurality of perimeters defining respective geographic areas; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to establish a plurality of perimeters defining respective geographic areas.” For example:<br><br>*See* above at row [1b].<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11c] at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application program | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application program types and at least one of the plurality of geographic areas.” For example: |

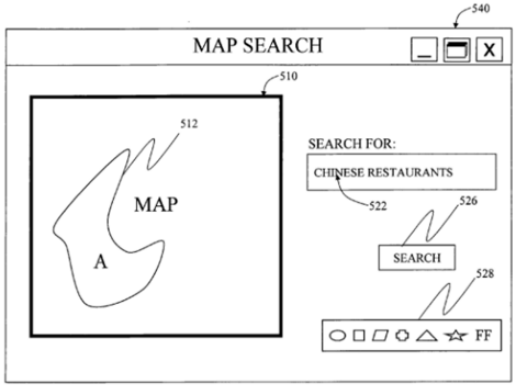
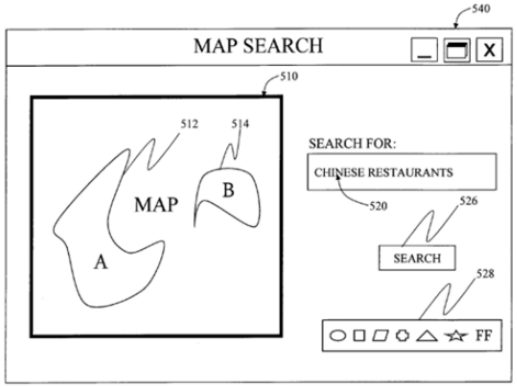
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| types and at least one of the plurality of geographic areas; |  <br>**FIG. 8**<br>Hughes ’666 at Fig. 8.<br>“Events can be created and shared by the system operators, businesses and by individual users. Users can create and share events with a subset of system enrollees, (e.g., family members only) or with the general public. For instance, a user can create a public garage sale event scheduled for Saturday morning at a specific address. Unrelated users can receive alerts regarding the garage sale, if they have created alerts conditioned upon garage sale events within a region that includes the garage sale address. This event sharing capability can be used to create a virtual community bulletin board, where individuals can create events and post events.” Hughes ’666 at [0075].<br>“Referring now to FIG. 7, a methodology for defining an alert is illustrated. At reference numeral 702, the type of alert to be created is selected. To facilitate alert creation, a user interface can provide users with a set of templates for generating valid alert types. Upon selection of a type of alert, the user interface can be populated and the user prompted for information required to define the alert at reference numeral 704. Such information can include the persons, geographic locations, events and time constraints for the alert. User can also be prompted to enter information regarding the mobile device or method by which the alert is to be |

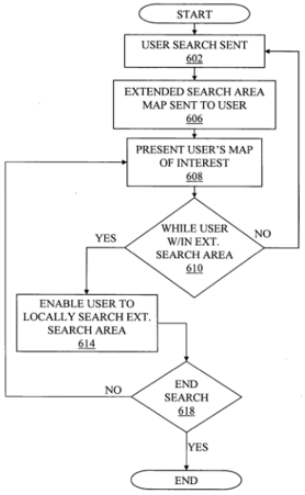
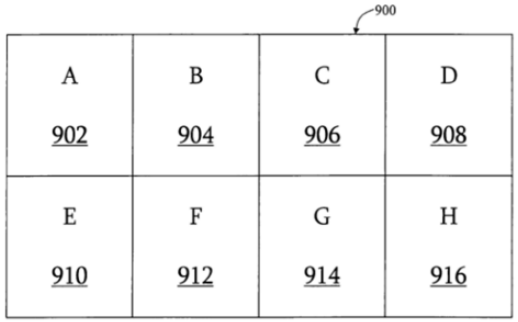
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| | provided. For example, the user can provide the address of the device to which the alert is to be delivered.” Hughes ’666 at [0076].<br><br>“Alerts can also be used in an advertising context. Typically, notifications generated by advertisement alerts are distributed as mobile devices approach a location, generally the location of the vendor. ” Hughes ’666 at [0083].<br><br>“The alert system 1100 can include an offer or advertisement interface 1102 that allows vendors to define and purchase advertisement alerts. Vendors can specify text to be included in the advertisement notification, a geographic location or region associated with the advertisement alert and a category or classification for the advertisement alert. Categories can describe the goods or services offered by the vendor. For example, movie theater advertisements can be classified as entertainment, or more specifically as movies, while an advertisement alert for a restaurant can be classified as dining.” Hughes ’666 at [0088].<br><br>“The alert system operator can sell exclusive advertisement rights for a particular advertisement category to vendors for defined regions or specified periods of time. For example, a restaurant owner can purchase the exclusive rights for food advertisements within two blocks of the restaurant during the lunch hours. Alternatively, the owner of a first restaurant can purchase the exclusive advertisement alert rights for a region proximate to a competing restaurant. The system operator can auction off advertisement rights, requiring vendors to bid for particularly popular advertising categories, regions or times.” Hughes ’666 at [0089].<br><br>“The time and location sensitive nature of advertisements distributed through the alert system 1100 provides increased flexibility for vendors. For example, a particular restaurant may be having a slow lunch crowd. The owner of the restaurant can contact the alert system 1100 and purchase a specific number of advertisements (e.g., fifty ads) including a coupon. The fixed number of advertisement notifications would be distributed to users within a specified distance of the restaurant. After all of the fixed number of ads has been distributed, the alert system would cease to distribute the advertisement. If the number of customers in the restaurant has been sufficiently increased by the issued advertisements, the process ends. Alternatively, the owner can elect to purchase additional advertisements, which can be issued almost immediately. The alert system 1100 can effectively create an advertisement that reaches a predetermined number of people, within a defined geographic area.” Hughes ’666 at [0091].<br><br>“At reference numeral 1202, an advertisement alert is defined for a specific geographic region. The specification can include an active period of time during which the advertisement is to be distributed and/or a maximum number of advertisement notifications to distribute. ” Hughes ’666 at [0092]. |

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| | *See also* Hughes ’666 at [0040], [0042], and [0066].<br><br>*See also* Kinoshita ’866 at Fig. 1, Fig. 3, Fig. 4, Fig. 5, Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, Fig. 11, Fig. 12, and [0043].<br><br>“Data communicated to the receiver component 102 from a user generally is associated with a particular entity or object (e.g., building, landscape, house, street corner, landmark, . . . ) or a specific geographic location (address, geographic coordinates).” Smith ’558 at [0069].<br><br>“Other information can be provided from commercial organizations, such as shopping malls that upload mall layout information and individual stores that provide information about sales or other relevant data. It should be noted that this information can be collected worldwide and the data associated with the disclosed embodiments is not limited to one area or country. Additionally or alternatively, the information relating to the businesses can be presented to the user based on the user's actual location or based on a mapping area viewed by the user. In such a manner, a user can receive business information for a geographic region of interest to the user (e.g., planning a vacation or business trip).” Smith ’558 at [0079].<br><br>“Overwrite component 604 might further be configured to modify map features based on advertiser information 610. Advertisers can purchase advertisements in the display space utilizing a per diem scheme, a click through scheme, any other scheme or combination of schemes. Advertisements can also be purchased based on geographic location. Such geographic location can be the actual physical location of the user or alternatively can be the geographic area that the user is viewing, which may not be the same as the physical location of the user.” Smith ’558 at [0117].<br><br>“With reference now to FIG. 36, illustrated is a system 3600 that facilitates on-line or real-time advertising and can also be referred to as geo-diluted advertising. Geo-diluted advertising is geared toward commercial establishments or others that desire to advertise using the map features and associated geographic area(s), which might be at an extreme the entire world or more focused, such as two city blocks.” Smith ’558 at [0236].<br><br>“An advertiser may want to advertise in a specific area and is willing to spend a particular amount of money (e.g., $2.00, $4.00, $10.00, . . . ) per click-through by a user, for example. A coverage component 3602 can be a tool or wizard that creates a layer for the desired geography. The coverage component 3602 receives information relating to advertisement coverage desired by advertisers for a particular geographic location or area 3604.” Smith ’558 at [0236]. |

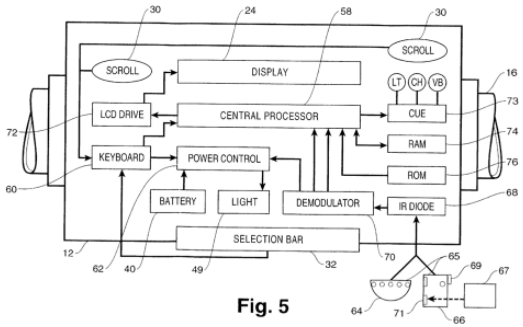
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| |  <br>FIG. 1<br>Sato ’965 at Fig. 1.<br>““Position” field 202 stores a position inside region 146 (see FIG. 1) to which is related the content expressed by content data 152.” Sato ’965 at [0079].<br>“In the example as shown in FIG. 3, the position inside region 146 is represented by the latitude and longitude. In addition, a mode for representing a position inside region 146 is not limited to the foregoing. Further, a position inside region 146 to which content is related is called a “content position” in this specification.” Sato ’965 at [0080].<br>“The content of content data 152 is displayed in region 1108. In the example as shown in FIG. 20, content data 152 is advertising information of a restaurant.” Sato ’965 at [0240].<br>*See also* Sato ’965 at Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, [0054], and [0284]. |

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| |  <br>FIG. 1<br>Ahn ’281 at Fig. 1.<br>  <br>FIG. 4<br>Ahn ’281 at Fig. 4. |

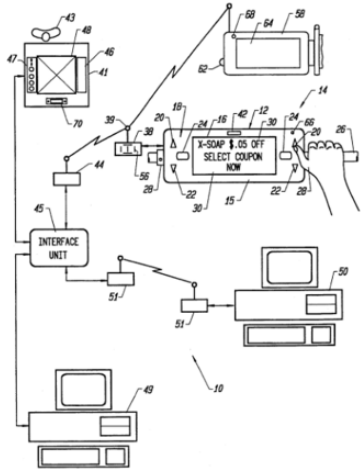
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| |  <br>FIG. 5C<br>Ahn ’281 at Fig. 5C.<br>  <br>FIG. 5D<br>Ahn ’281 at Fig. 5D. |

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| |  <br>FIG. 6<br>Ahn ’281 at Fig. 6.<br>  <br>FIG. 9<br>Ahn ’281 at Fig. 9. |

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| | “In addition to the extended map sent back to the user, map-advertising information is also sent back in accordance with an embodiment of the invention. The map-advertising information is a set of information that generally is used by the local map handler 302 to decide which set of advertisements is presented to the user.” Ahn ’281 at [0055].<br><br>“FIG. 10 is an example flowchart of a method by which the advertising feature of the present invention is provided, according to an embodiment of the invention. In the first operation, an advertising scheme is defined which is based on the association of advertising regions of a map to advertisements (step 1002). Next, the map presented to the user and, optionally, the cursor position, (step 1004) is used to determine the one or more advertisements to be displayed or presented to the user (step 1006). Marketing-related information, such as the advertisements presented and whether there was a click through, and other information are captured and stored (step 1014). This is captured on the client device 110 and alternatively also sent to the map manager 102 (step 1020). This marketing-related information may be used to help in soliciting more advertising revenues or to tailor the advertising scheme to obtain a better stream of revenue.” Ahn ’281 at [0095].<br><br>“The geographic information knowledge (GIK) systems of an embodiment include a method for managing geographically referenced data (GRD). The method of an embodiment includes receiving a search request that includes a defined search area. The method of an embodiment includes providing an extended map based on the search request. The extended map includes geographic areas within the defined search area and outside the defined search area. The method of an embodiment includes providing the GRD. The GRD includes one or more of advertisements, contact information, and review information for one or more entities. The method of an embodiment includes providing map reference information of the GRD on the extended map.” Ahn ’281 at [0178].<br><br>“The GIK systems of an embodiment include computer readable medium including executable instructions which, when executed in a processing system, manage geographically referenced data (GRD), by receiving a search request that includes a defined search area. The computer readable medium of an embodiment provides an extended map based on the search request. The extended map of an embodiment includes geographic areas within the defined search area and outside the defined search area. The computer readable medium of an embodiment provides the GRD. The GRD includes one or more of advertisements, contact information, and review information for one or more entities. The computer readable medium of an embodiment provides map reference information of the GRD on the extended map.” Ahn ’281 at [0205]. |

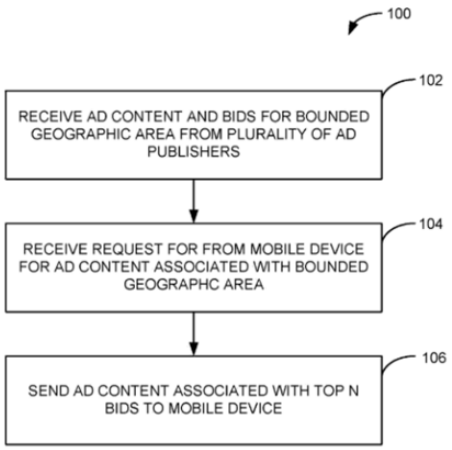
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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“Since the point of purchase promotion is most effective when the customer is at ground zero, that is, proximate the shelf location of the promoted item, the graphic must be transmitted, received and formatted for display in the brief time that the shopper is strolling past the promoted item.” Begum ’880 at 4:33–38.<br>“The infrared or radio frequency receiver in the handle, used for an alarm when the cart or handle leaves a prescribed area, also be used to receive an advertisement signal by appropriate programming as described.” Begum ’880 at 4:59–63.<br>“The user interface is designed to allow the user to access all of the available data including stored promotional graphics by a control system that is intuitive. Furthermore, the hybrid system devised for automatic display of promotional graphics, is designed to incorporate features that are beneficial in facilitating automatic update of the promotional advertisements.” Begum ’880 at 4:65–5:4.<br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power |

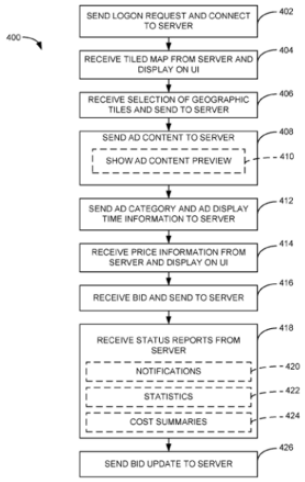
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| | transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>*See also* Begum ’880 at 1:60–2:5, 5:65–6:4, 6:18–37, 9:12–16, 9:16–29, 9:56–65, 10:16–31, and 10:41–51. |

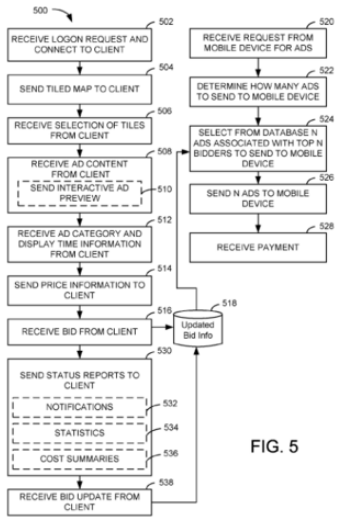
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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“In the preferred embodiment, the communication units are primarily portable and communicate with the coupon interface modules via wireless data transmissions. Furthermore, the discount coupons are preferably activated when the shopper is in the market area proximate the location of the discounted items. In this situation, a local message sending unit proximate the location of the item activates the display of the coupon graphic on the display screen of the communication unit carried by the shopper or mounted on the shopper's cart. ” Begum ’606 at 3:4–14.<br>“In addition to the remote loading and discontinuance, the use of a transceiver enables the display of coupons to be generated proximate the store location of the item that is the subject of the coupon. ” Begum ’606 at 5:56–59.<br>“Each message sending unit 58 is locationally identified and loaded with locationally specific data by the storewide systems controller 50 that remotely transmits storewide transmission signals. In this embodiment, the product control data accompanying the coupon display data includes the identity, hence location, of the transmitting message sending unit 58. T” Begum ’606 at 5:63–6:2. |

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| | “In some embodiments, previously-prepared applications, e.g., utilities or games for mobile phones, may be configured or adapted to include or embed a content client, e.g., using a Software Development Kit (SDK) or a Close Class.” Levkovitz ’852 at [0006].<br><br>“ In some embodiments, for example, the application-initiated content request may include a data item selected, e.g., taking into account the capabilities of the device, from a group consisting of: a data item representing an available memory of the wireless communication device, a data item representing an audio capability of the wireless communication device, a data item representing a video capability of the wireless communication device, a data item representing a screen size of the wireless communication device, a data item representing a content item type that the wireless communication device is able to present, and a data item representing a location of the wireless communication device.” Levkovitz ’852 at [0010].<br><br>“In some embodiments, for example, the modifier is to select the advertisement based on a location of the second wireless communication device.” Levkovitz ’852 at [0045].<br><br>“For example, ad selector 113 may determine that the content request originates from device 170 associated with user who is a 22 year old male student who lives in London and is interested in sports, and may select content items intended to be presented to such user, e.g., an advertisement of a sporting event in London.” Levkovitz ’852 at [0131].<br><br>“A fifth presentation rule may require, for example, that a certain content item, e.g., an advertisement for a certain shop, be presented when device 170 is geographically located within a pre-defined distance (e.g., 300 meters) of the address of that shop.” Levkovitz ’852 at [0159].<br><br>“The SMSC 311 may utilize a Home Location Register (HLR) 313 to determine (e.g., using interrogation) whether recipient device 302 is active, and/or to determine the roaming location of recipient device 302; and may deliver the modified SMS message to recipient device 302, e.g., optionally utilizing a Mobile Switching Center (MSC) 312.” Levkovitz ’852 at [0195].<br><br>“In some embodiments, the system may map SMS/MMS/IM/Email context text to keywords. For example, a user may create and send a textual message “How about we see The Last Samurai tonight?”. Based on textual analysis, and/or identification of the phrase “The Last Samurai”, the system may map the textual message to a “movies” category, and/or to an “action movies” sub-category, thereby selecting advertisement that are related to this category or sub-category. Additionally or alternatively, based on identification of the word “tonight”, the advertisement selection process may be further fined-tuned, e.g., to select an advertisement for an action movie which is expected to play tonight (e.g., in the night-time of the current date), optionally in the |

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| | geographical region in which the user is currently located and/or in the geographical region in which the user resides (e.g., based on subscriber's personal information). For example, the user may be presented with the message, or the original message may be modified to include the message, “See this movie tonight at 19:30 at the Paragon Theater in Times Square”. Optionally, the embedded message may include a reward or an incentive for the user, e.g., to act on the presented message, for example, by adding the message “Get free popcorn”.” Levkovitz ’852 at [0223].<br><br>“In some embodiments, user-selectable operations may be associated with an incoming content item based on one or more properties or characteristics, for example, of the device 1070 and/or its user, and/or other data or parameters (e.g., date, time, location, or the like).” Levkovitz ’852 at [0272].<br><br>“a fourth user-selectable operation may be available only when the user or the device 1070 meets certain conditions, e.g., if the device 1070 is within a certain location (e.g., in proximity to a certain restaurant)” Levkovitz ’852 at [0272].<br><br>“For example, a first user-selectable action associated with a first incoming content item, may be available only during a certain time and/or while the recipient device is within a certain geographical location.” Levkovitz ’852 at [0273].<br><br>*See also* Levkovitz ’852 at [0026]. |

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| |  <br>FIG. 1<br>Bussmann ’294 at FIG. 1. |

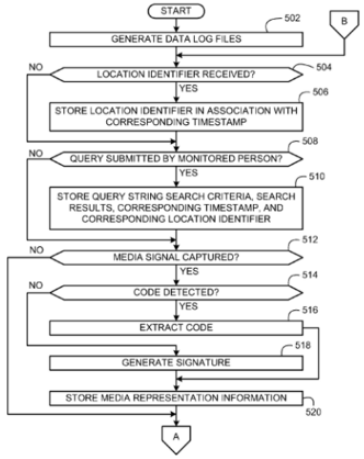
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| |  <br>FIG. 4<br>Bussmann ’294 at FIG. 4. |

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| |  <br>FIG. 5<br>Bussmann ’294 at FIG 5.<br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. |

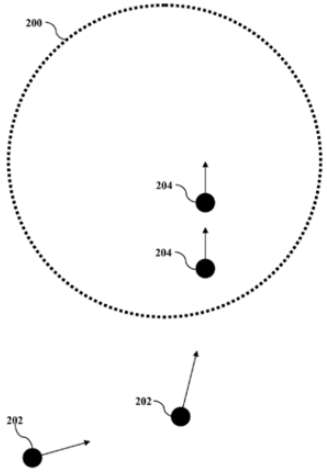
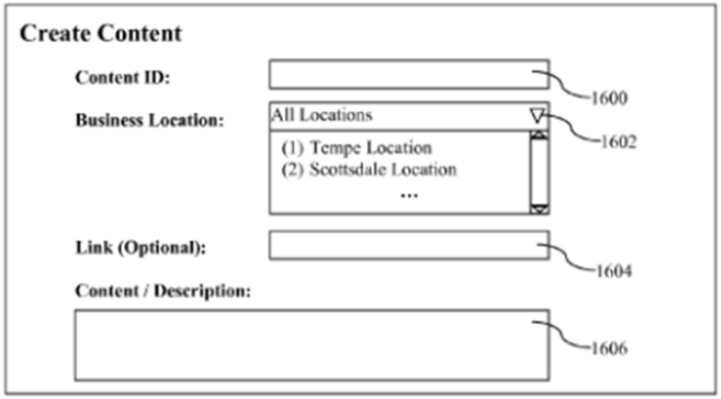
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| | Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“Upon receipt of such a map, an advertising publisher computing device 204 may receive an input of a selection of one or more tiles in which the publisher wishes to have its advertising content distributed, and then send the selection to the advertising server along with the item or items of advertising content the publisher wishes to distribute. The advertising publisher computing device 204 also may send other advertising information, such as advertising category information and desired advertising times, to the advertising server 202. This information is collectively referred to as “ad info” in FIG. 2. Upon receipt of this information, the advertising server 202 may provide pricing information to the advertising publisher computing device 204. In some embodiments, the pricing information may comprise a “future price”, as opposed to the current price reflected by the map, and may be determined by a highest existing bid or bids for each selected tile over the requested time interval in light of the category information provided by the advertising publisher. In some embodiments, the total price for a multi-tile area may be lower than a sum of the highest bids for each requested tile for the requested time interval, while in other embodiments, the price for a multi-tile area may have any other suitable relationship to the sum of the individual tile pricings. As described below, the pricing information may be continuously updated as bids are received from various users and demand for the tiles increases or decreases. Further, where no bids have been made on a selected tile, the pricing information may comprise a preselected minimum price for a tile.” Bussmann ’294 at [0017].<br><br>“Continuing with FIG. 2, the advertising server 202 is also configured to provide advertising content to devices 210, 212, 214 that request content for specified locations. When requesting advertising content, a device (such as device 210) sends information regarding its geographic location to the advertising server 202. The device 210 also may send other information. For example, the device 210 may send information |

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| | regarding its type, manufacturer and/or model identity. Such information may allow the advertising server 202 to select items of advertising content intended for that type of device. The device 210 also may send information regarding a current zoom level at which the display on the device is currently being viewed. Such information may allow the advertising server to select items of advertising content configured to trigger at the specified level of zoom, and/or to determine how many items of advertising content can be viewed at one time on the device display and therefore to select how many advertising content items to send to the device.” Bussmann ’294 at [0023].<br><br>“Next, method 400 comprises, at 404, receiving a tiled map from the server and displaying the tiled map on a graphical user interface, wherein the tiled map shows an N-dimensional view of a geographic region divided into one or more tiles. In this manner, an advertising publisher may select tiles corresponding to geographic areas in which (or in connection with which) the publisher wishes to have an item of advertising content displayed. As described above, each tile may have any suitable shape and size. For example, dense urban areas may be divided into more tiles than less dense rural areas. Further, each tile may have a size and shape similar to the other tiles, or one or more tiles may have different sizes and shapes compared to the other tiles. In some embodiments, the tiles may have arbitrary polygonal (or polycurved, etc.) shapes that do not correspond to geographic features of the region represented by the map. In other embodiments, the tiles may have boundaries that follow geographic features of the region represented by the map. Further, the map may be displayed in colors or other visual indicators of the relative demand and/or cost of each tile displayed.” Bussmann ’294 at [0026].<br><br>“Method 400 next comprises, at 406, receiving a selection of tiles from a user via the graphical user interface, and then sending the selection of tiles to the advertising server. In addition to the selection of tiles, advertising content for the selection of tiles also may be sent to the advertising server, as indicated at 408. In some embodiments, as indicated at 410, the advertising content may then be viewed in a preview feature offered by the advertising content server. Such a preview may allow an advertising publisher to view a representation of how advertising content may appear to users of different types of devices, at different levels of zoom and/or panning, etc. In this manner, an advertising publisher may use the preview process as an aid to developing effective advertising content for specific devices, locations, etc.” Bussmann ’294 at [0027].<br><br>“Continuing with the figures, FIG. 5 shows a method 500 of operating an advertising server. Method 500 illustrates various details of method 400 from the advertising server's point of view, where communications with an advertising publisher client are shown in a left-hand side of the figure and communications with a device are shown in a right-hand side of the figure. Method 500 first comprises, at 502, receiving a logon request from an advertising publisher client, and connecting to the client. Next, at 504, a tiled map is sent to |

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| | the client to allow the advertising publisher to select tiles in which it is interested in having its advertising content distributed.<br><br>After sending the tiled map, a selection of tiles on the map is received from the client at 506, and advertising content is received from the client at 508. As described above, in some embodiments, an advertising server may be configured to allow an advertising publisher to view a preview of advertising content in the tiles selected by the advertising publisher. Therefore, method 500 comprises, at 510, sending an advertising content preview to the client. In some embodiments, the advertising content preview may be an interactive preview configured to allow an advertising publisher to view an item of advertising content on different types of devices, at different levels of zoom, panning, etc. to see how the item of advertising content will appear to a user in various specific geographic locations. In this manner, an advertising publisher may be able to tailor an appearance of an item of advertising content to a desired appearance in a specific device and/or location.<br><br>Method 500 next comprises, at 512, receiving advertising category and advertising display time information from the client. Examples of category and display time information are discussed in detail above. While the depicted embodiment shows the category and time information appearing in a later step than the receipt of the ad content and selection of tiles, it will be understood that these items may be received in any suitable order.<br><br>Upon receipt of the selection of tiles, ad content, and category and time information, method 500 comprises, at 514, sending price information to the client, and then at 516, receiving a bid from a client. The bid is then stored in an updated bid information database, as indicated at 518. It will be understood that processes 502-518 may be performed by a plurality of different publishers on a continuous, rolling basis as clients wish to submit bid information. Further, the advertising server also may interact with requesting devices on a continuous, rolling basis to provide items of advertising content to the devices. An example of a transaction with a device such as a PND or the like is shown in FIG. 5 at 520-526. First, at 520, method 500 comprises receiving from a device a request for advertising content. Upon receipt of this request, it is determined, at 522, a number N of items of advertising content to send to the device. The number N of items of advertising content may vary depending upon a number of factors, including but not limited to, a type/brand/model of device that sent the request, a current level of zoom currently shown on the device display, and/or whether any advertising publishers have paid for exclusive advertising rights to a tile that is within the relevant geographic area.” Bussmann ’294 at [0035]–[0038]. |

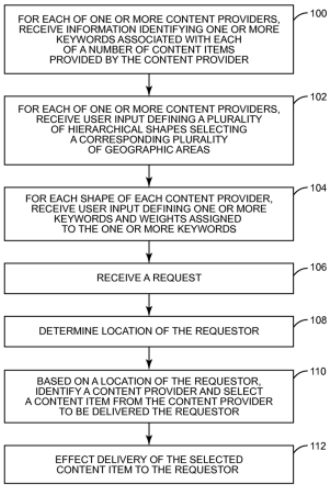
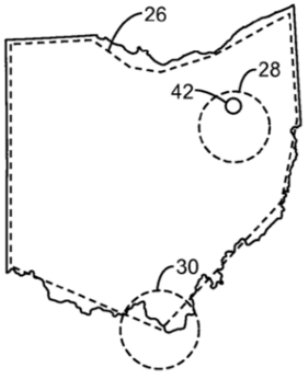
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| |  <br>FIG. 5A<br>Mello ’479 at FIG. 5A.<br>“After the web event data collector 166 stores the query string search criteria and associated information (block 510) or if the web event data collector 166 determines that a query has not been submitted (block 508), the media capture data collector 168 (FIG. 3) determines whether a media signal (e.g., an audio signal, a video signal, an RF signal, etc.) has been captured (block 512). For example, the media signal may be an audio signal associated with an advertisement presented by the audio device 16 or the video device 18 (FIG. 1), a video signal presented by the video device 18 (FIG. 1), or an RF signal emitted by the RF transceiver 22 of the billboard 20 (FIG. 1).<br>The media capture data collector 168 then determines whether the captured media signal includes a code (block 514). If the captured media signal includes a code, the media capture data collector 168 extracts (or creates a copy of) the code (block 516). If the captured media signal does not include a code (block 514), the media capture data collector 168 generates a signature of the captured media signal (block 518). Alternatively, a signature can always be collected regardless of whether a code was collected. After the media capture data collector 168 extracts a code (block 516) and/or generates a signature (block 518), the media |

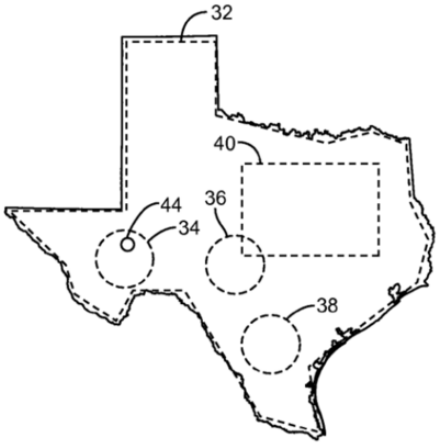
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| | capture data collector 168 stores the media representation information (e.g., the code and/or the signature) (block 520) in the media data log file 184 (FIG. 3).<br><br>After the media capture data collector 168 stores the media representation information (block 520) or if the media capture data collector 168 determines that a media signal has not been captured (block 512), the consumer purchase data collector 170 determines whether any input data relating to potential purchases have been received (block 522) (FIG. 5B). In the illustrated example, the potential purchase data is data indicative of a product or a service such as, for example, bar code information read using the bar code reader 136 (FIG. 2) or RFID information received via the RF transceiver 134 (FIG. 2) in response to the monitored person 32 scanning a product or a service document. If the consumer purchase data collector 170 determines that potential purchase data has been received (block 522), the consumer purchase data collector 170 determines whether the monitored person 32 purchased the product or service corresponding to the received potential purchase data (block 524). For example, the consumer purchase data collector 170 may receive subsequent information or the potential purchase information received at block 522 may have a corresponding purchase confirmation flag indicating that the monitored person 32 purchased the related product or service. If the consumer purchase data collector 170 determines that the monitored person 32 made the purchase (block 524), the consumer purchase data collector 170 stores the purchase information (block 526) in association with a corresponding timestamp and location identifier in the purchase data log file 186 (FIG. 3).” Mello ’479 at [0082]–[0084]. |

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| |  <br><br>FIG. 2A<br>Busch ’815 at Fig. 2A.<br>  <br><br>FIG. 16A |

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| | Busch ’815 at Fig. 16A.<br><br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br><br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, integration of location data with customer relationship management systems and systems to determining retail business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br><br>“Then the mobile device may be configured to report the information describing whether or not the user responded to the content by going to the geographic location indicated back to the advertiser associated with corresponding element of the content result set. The system may also report the duration or period of time the geographic location of the mobile device corresponded to the geographic location corresponding to the element of the content result set, or a business location of the advertiser. This allows advertisers to see the different periods of time people spend at their business locations.” Busch ’815 at [0278].<br><br>“Alternatively, one or more destinations may be determined and the current geographic location information along with a proposed destination is routed to a routing program to obtain a path of travel. Next, a content result set is obtained that contains one or more elements selected based upon at least the likely course or area of travel, specific destination, or specific destinations so that information pertaining to businesses along the course of travel are available to the user. Any number of these results are displayed on the mobile device at appropriate times (e.g., when the user is approaching a business location along a path, when a user is walking around a shopping area, when the user is driving along a highway, when the user performs a search for content or a business, when a user requests route guidance, not when the user is in a movie theater, not when the user is eating dinner, not when the user is at work, etc.).” Busch ’815 at [0280]. |

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| | “In some forms of the invention, location information describing the perimeters of business locations are sent to the mobile device and the mobile device communicates with the server if the location of the mobile device is located within the perimeter of the business location. In other forms of the invention, the location information of the mobile device is sent to the system and compared with information describing the perimeters of business locations. Alternatively, the business locations may be defined by a point and radius, or mathematical formula. This is exemplary and is not intended to limit the scope of the invention. As shown and described, a person having ordinary skill in the art is able to implement the invention in any number of varying forms.” Busch ’815 at [0338].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract. |

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| |  <br>*FIG. 1*<br>Svendsen ’073 at Fig. 1.<br>  <br>***FIG. 4A***<br>Svendsen ’073 at Fig. 4A. |

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| |  <br>***FIG. 4B***<br>Svendsen ’073 at Fig. 4B. |

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| SHAPE | Z-ORDER | KEYWORDS |
|---|---|---|
| 26 | 0 | Change = 80, NAFTA = 30, election = 100, experience = 20 |
| 28 | 1 | job loss = 50, trade deficit |
| 30 | 2 | Iraq = 90, oil prices = 70 |
| 32 | 0 | Change = 80, NAFTA = 30, election = 100, experience = 20 |
| 34 | 1 | trade deficit = 80 |
| 36 | 2 | Iraq = 90 |
| 38 | 3 | job loss = 50 |
| 40 | 4 | oil prices = 70 |

***FIG. 4C***

Svendsen ’073 at Fig. 4C.

| POINT | INTERSECTING SHAPES | KEYWORDS | BID |
|---|---|---|---|
| 42 | 26, 28 | Change = 80, NAFTA = 30, election = 100, experience = 20, job loss = 50, trade deficit = 25 | 305 |
| 44 | 32, 34 | Change = 80, NAFTA = 30, election = 100, experience = 20, trade deficit = 80 | 310 |

***FIG. 4D***

Svendsen ’073 at Fig. 4D.

“For each content provider, the central custom content delivery function also receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. For each geographic shape, the content provider defines one or more tags for the geographic shape, or the geographic area selected by the geographic shape, and assigns a weight to each of the one or more tags. Like the tags

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| | assigned to the content items of the content provider, the tags assigned to the geographic shapes defined by the content provider may each be, for example, a keyword, a demographic criterion, or the like.” Svendsen ’073 at 1:31–41.<br><br>“In addition, for each content provider, information defining a number of geographic shapes selecting corresponding geographic areas is received from the content provider (step 102). Preferably, the geographic shapes are user-defined shapes defined by a user associated with the content provider. For example, a user associated with a content provider may provide a center point and radius defining a circle that selects a desired geographic area; four points defining a square or rectangular shape that selects a desired geographic area; a number of points, curves, or lines defining an arbitrary shape that selects a desired geographic area; or the like. As another example, the user may provide a line or curve and a distance (d) defining a shape selecting a geographic area within the distance (d) from the line or curve. Preferably, each of the geographic shapes defined by a content provider completely or partially overlaps at least one other of the geographic shapes. In addition, the geographic shapes defined for a content provider are preferably hierarchical in that the geographic shapes are assigned importance levels, which are referred to herein as z-order values. For each geographic shape of each content provider, information is received from the content provider defining one or more keywords and corresponding weights assigned to the geographic shape (step 104).” Svendsen ’073 at 3:11–34.<br><br>“As an example, FIG. 2A illustrates exemplary geographic shapes 10 through 16 defined by a content provider according to one embodiment of the present invention. While not shown, the geographic shapes 10 through 16 are combined with or overlaid upon a map or similar data structure to identify the corresponding geographic areas. Each one of the geographic shapes 10 through 16 overlaps or intersects at least one other one of the geographic shapes 10 through 16, and each one of the geographic shapes 10 through 16 is assigned an importance level, or z-order value. In this example, the content provider has assigned the keyword Red with a weight of 80 and the keyword Blue with a weight of 30 to the geographic shape 10, which is also referred to as Shape A. In other words, the content provider has tagged the geographic shape 10 with the keywords Red and Blue. The content provider has assigned the geographic shape 10 a z-order value of 0, thereby setting the geographic shape 10 to a lowest importance level. Likewise, the content provider has assigned the keyword White with a weight of 50 to the geographic shape 12, which is also referred to herein as Shape B, and assigned the geographic shape 12 a z-order value of 1. The content provider has assigned the keyword Blue with a weight of 90 to the geographic shape 14, which is also referred to herein as Shape C, and assigned the geographic shape 14 a z-order value of 2. Lastly, the content provider has assigned the keyword Green with a weight of 10 and the keyword Red with a weight of 20 to the geographic shape 16, |

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| | which is also referred to herein as Shape D, and assigned the geographic shape 16 a z-order value of 3.” Svendsen ’073 at 3:35–63.<br><br>“FIGS. 6A through 6C graphically illustrate the process of FIG. 5 according to one embodiment of the present invention. FIG. 6A illustrates geographic shapes defined by a content provider to select geographic areas of interest to the content provider.” Svendsen ’073 at 9:62–66.<br><br>“More specifically, as illustrated in FIG. 6A, the audio provider has defined a geographic shape 46 selecting the state of North Carolina and geographic shapes 48 through 56 selecting corresponding geographic areas within the state of North Carolina. FIG. 6B illustrates keywords and corresponding weights assigned to each of the geographic areas 46 through 56 by the audio provider as well as z-order values, or importance levels, assigned to the geographic shapes 46 through 56 by the audio provider. Note that in this example, the keywords are music genres.” Svendsen ’073 at 10:3–12.<br><br>“As discussed above, an account of a content provider includes information defining geographic shapes defined by the content provider and, for each content item of the content provider, one or more keywords assigned to the content item. In addition, for each geographic shape defined by the content provider, the account of the content provider includes keywords assigned to the geographic shape as well as weights for those keywords. Lastly, the account may include a z-order, or importance level, for each of the geographic shapes.” Svendsen ’073 at 13:52–60.<br><br>“Using advertisers as an example, in operation, one or more advertisers register with the customized content delivery function 78. As discussed above, each advertiser defines a number of geographic shapes selecting corresponding geographic areas.” Svendsen ’073 at 14:19–23.<br><br>*See also* Svendsen ’073 at 4:48–67, 7:63–8:4, and 13:41–52.<br><br>“There are already several ad network/platforms available for iPhone apps. Here’s the current list of offerings:<br><br>• Crisp Wireless - currently creates banners + microsites; used by the New York Times and Washington Post apps<br><br>• PurpleTalk - allows creation of customizable text banners; features ad exchange “Partner Network”<br><br>• AppLoop - claims to be the first real-time, location-based mobile advertising network<br><br>• Pinch Media - widely-used ad network on dozens of iPhone apps |

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| | • Medialets - offers CPM, CPC and CPA advertising run natively through iPhone apps<br>• AdMob -offers rich-media (video-, map- and Apple App Store-integrated) banner ads on iPhone apps; also has an impressive list of signed clients” Menayan 2008 at 1.<br>“• Precisely Target your ads based on location and context.<br>• Advanced Statistics report the performance of all your advertising campaigns.<br>• Engage dedicated, valuable, and near-by users from the palm of their hand.<br>Get Started<br>• Bring your advertising strategy to the next level with location-based mobile advertising, Why spend money advertising to people sitting on their couch or at a computer desk? Mobile application users are active and ready to spend money.” AppLoop.com: Advertisers at 1.<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11d] at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas.” For example:<br>*See* above at row [1d].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, |

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| | would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11e] at least one instruction to provide the sponsor a response to the request; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to provide the sponsor a response to the request.” For example:<br>*See* above at row [1e].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11f] at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas.” For example:<br>*See* above at row [1f].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11g] at least one instruction to receive, from the sponsor, content to be delivered to application programs having target locations contained within the selected one | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to receive, from the sponsor, content to be delivered to application programs having target locations contained within the selected one of the plurality of geographic areas.” For example:<br>*See* above at row [1g]. |

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| of the plurality of geographic areas; | To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11h] at least one instruction to receive a request from a registered application program for content to be used within the registered application program; | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to receive a request from a registered application program for content to be used within the registered application program.” For example:<br>*See* above at row [1h].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11i] at least one instruction to select content associated with at least one of the plurality of sponsors to be delivered to the registered application program of a specific type, in accordance with a content delivery reservation associating the at least one sponsor with a geographic area and a | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to select content associated with at least one of the plurality of sponsors to be delivered to the registered application program of a specific type, in accordance with a content delivery reservation associating the at least one sponsor with a geographic area and a registered application program type.” For example:<br>*See* above at row [1j].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been |

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| registered application program type; and | within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [11j] at least one instruction to provide the selected content to the registered application program. | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to provide the selected content to the registered application program.” For example:<br>*See* above at row [1k].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 12[pre]. The non-transitory computer readable medium of claim 11, wherein the program of instructions further comprises: | The following prior art expressly or inherently discloses and renders obvious “[t]he non-transitory computer readable medium of claim 11.” *See* claim 11 limitations above.<br>*See* above at row 1[pre]. |
| [12a] at least one instruction to record a request identifier associated with the request; and | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to record a request identifier associated with the request.” For example:<br>*See* above at row [2a].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

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| [12b] at least one instruction to provide the request identifier to the registered application program. | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to provide the request identifier to the registered application program.” For example:<br>*See* above at row [2b].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 13[pre]. The non-transitory computer readable medium of claim 12, wherein the program of instructions further comprises: | The following prior art expressly or inherently discloses and renders obvious “[t]he non-transitory computer readable medium of claim 12.” *See* claim 12 limitations above.<br>*See* above at row 1[pre]. |
| [13a] at least one instruction to receive information related to user interaction with the provided content, the information including the request identifier; and | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to receive information related to user interaction with the provided content, the information including the request identifier.” For example:<br>*See* above at row [3a].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

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| [13b] at least one instruction to provide additional content to the registered application in response to the received information. | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to provide additional content to the registered application in response to the received information.” For example:<br>*See* above at row [3b].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 14[pre]. The non-transitory computer readable medium of claim 11, wherein the program of instructions further comprises: | The following prior art expressly or inherently discloses and renders obvious “[t]he non-transitory computer readable medium of claim 11.” *See* claim 11 limitations above.<br>*See* above at row 1[pre]. |
| [14a] at least one instruction to determine whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location; and | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to determine whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location.” For example:<br>*See* above at row [4a].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

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| [14b] at least one instruction to increase the predetermined radial distance in response to a negative determination. | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to increase the predetermined radial distance in response to a negative determination.” For example:<br>*See* above at row [4b].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| 15[pre]. The non-transitory computer readable medium of claim 11, wherein the program of instructions further comprises: | The following prior art expressly or inherently discloses and renders obvious “[t]he non-transitory computer readable medium of claim 11.” *See* claim 11 limitations above.<br>*See* above at row 1[pre].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [15a] at least one instruction to reserve a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to application programs and having a target location contained within | The following prior art expressly or inherently discloses and renders obvious “at least one instruction to reserve a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to application programs and having a target location contained within the specific one of the plurality of geographic areas.” For example:<br>*See* above at row [5a].<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the |

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| the specific one of the plurality of geographic areas. | knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

**Exhibit 296.E – Invalidity of U.S. Patent No. 8,433,296 in view of Chmaytelli ’453**

Chmaytelli ’453 qualifies as prior art to U.S. Patent No. 8,433,296 (“the ’296 patent”) under at least pre-AIA 35 U.S.C. §§102(a), (b) and (e). Chmaytelli ’453 was filed on March 31, 2005, and originally published on November 9, 2006.

Chmaytelli ’453 anticipates the Asserted Claims of the ’296 patent (claims 1–15, as set forth in Plaintiff’s preliminary infringement contentions served on November 1, 2024). To the extent it is found Chmaytelli ’453 does not expressly disclose certain limitations in the Asserted Claims, such limitations are at least implicitly or inherently disclosed. Moreover, to the extent it is found that Chmaytelli ’453 does not anticipate the Asserted Claims, Chmaytelli ’453 renders obvious the Asserted Claims, either alone or in combination with one or more of the prior art references identified in the cover pleading and other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.

Home Depot’s invalidity contentions, including this chart, are based in part on H2’s infringement contentions and apparent claim interpretations. In some instances, certain claim limitations are expressly or inherently present in the prior art in light of H2’s apparent claim interpretations in its infringement contentions. Home Depot offers these contentions without prejudice to any position Home Depot may later take as to any claim construction issues. To the extent these contentions reflect claim constructions consistent with H2’s infringement contentions, no implication is intended, nor should any inference be drawn, that Home Depot agrees with any construction implied by H2’s infringement contentions.

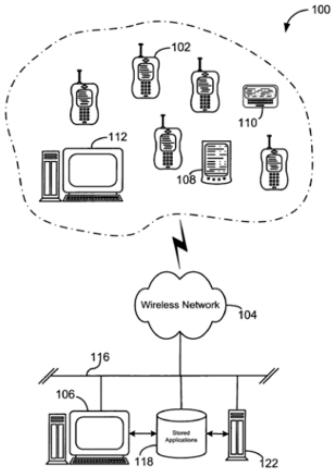
The citations provided are exemplary and do not necessarily include each and every disclosure of a limitation in Chmaytelli ’453. Home Depot has endeavored to cite the most relevant portions of Chmaytelli ’453, but other portions of Chmaytelli ’453 may additionally disclose, either expressly or inherently, and/or render obvious, one or more limitations of the asserted claims. Home Depot reserves the right to rely on (1) uncited portions of Chmaytelli ’453, including documents referenced within Chmaytelli ’453; (2) other prior art not identified herein; (3) references that show the state of the art and the knowledge of a person of skill in the art, irrespective of whether such references themselves qualify as prior art to the asserted patents; (4) factual testimony from the inventors or authors of the prior art references, or purveyors of prior art devices; and/or (5) expert testimony, to provide context to or aid in understanding the prior art, the state of the art, and/or the knowledge of a person of ordinary skill in the art. To the extent Home Depot asserts that a claim limitation is indefinite, Home Depot has used its best efforts to interpret the claims to fulfill its duties in charting the prior art references.

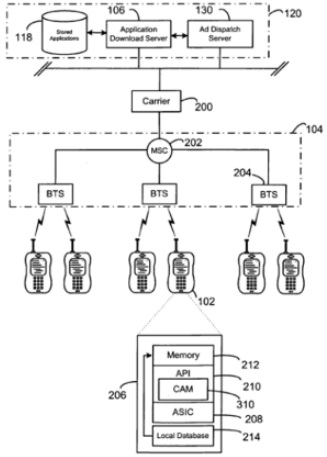
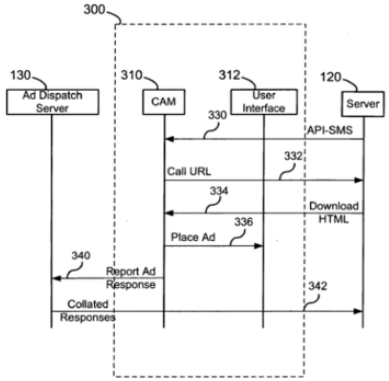
Where Home Depot cites to a particular drawing or figure in the accompanying charts, the citation encompasses the description of the drawing or figure, as well as any text associated with the drawing or figure. Similarly, where Home Depot cites the text concerning a figure, the citation encompasses that figure. This prior art at least inherently discloses certain claim limitations, and Home Depot reserves the right to rely on inherency to demonstrate the invalidity of the asserted claims. Home Depot may rely on cited or uncited portions of the prior art, other documents, factual testimony, and expert testimony to invalidate the asserted claims.

If H2 contends that this reference does not disclose any particular limitation of the asserted claims of this patent, it would have been obvious to a person of ordinary skill in the art to modify this reference and/or to combine the teachings of this reference with other prior art references in a manner that renders such claims invalid.

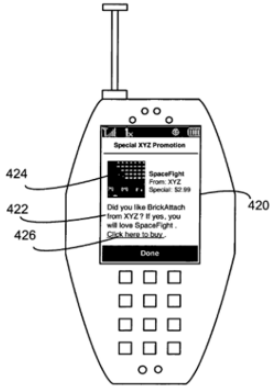
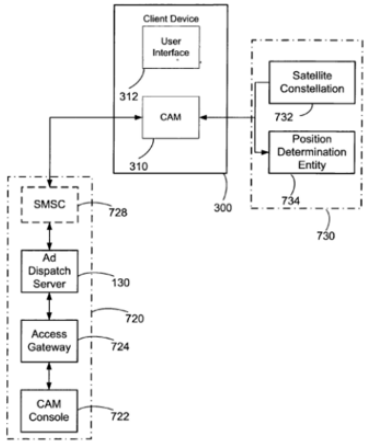
Discovery is ongoing and Home Depot will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter, subject to further investigation and discovery regarding the reference, the Court’s construction of the claims at issue, and discovery generally, including third-party discovery.

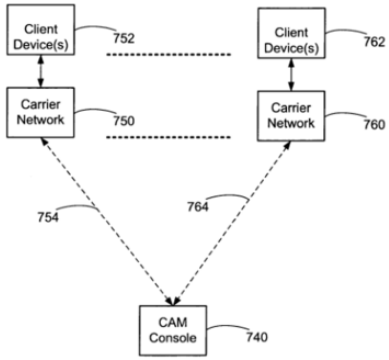
This chart is subject to all reservations, objections, and disclaimers in Home Depot's Invalidity Contentions and any amendment, supplement, or modification thereof incorporated herein by reference in their entirety.

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| 1[pre]. A method comprising: | To the extent the preamble is limiting, Chmaytelli '453 expressly or inherently discloses and renders obvious "[a] method." *See* limitations [1a]–[1k] below.<br><br>"Systems and methods for sending and receiving ads from a server to a client device are disclosed. The ads can be sent based on the location of the client device and/or a designated time window. An ad manager on the client device can display, store and manage the received ads and activated additional applications based on the content of the ad." Chmaytelli '453 at Abstract.<br><br>  <br><br>Fig. 1<br>Chmaytelli '453 at FIG. 1. |

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| |  <br>Fig. 2<br>Chmaytelli ’453 at FIG. 2.<br>  <br>Fig. 3 |

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| | Chmaytelli ’453 at FIG. 3.<br>  <br><br>Fig. 4A<br>Chmaytelli ’453 at FIG. 4A. |

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| |  <br>Fig. 4B<br>Chmaytelli ’453 at FIG. 4B.<br>  <br>Fig. 7A |

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| | Chmaytelli ’453 at FIG. 7A.<br>  <br><br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications |

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| | that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic |

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| | circuit, or other data processing device. The ASIC 208 or other processor executes the application programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual |

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| | private network, and the like, thus allowing the client device access to a broader communication network. As discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 |

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| | (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br><br>“FIG. 4A illustrates an example of an ad on a small screen client device. Small screen ads 410 can be primarily text based and contain less information than large screen ads. FIG. 4B illustrates an example of an ad on a large screen device. The large screen ad 420 can contain both text 422 and an image 424, thus increasing the ad's appeal to the end-user. Additionally, the larger ad can also contain other features, such as a link 426 to an online store, further facilitating the ease of use for the end-user. Larger screen devices can allow for much richer ads, optionally containing screenshots for applications or other marketing related graphics. Based on the particular application, the minimum device screen size, for example, can be chosen as the basis for determining the type of message sent. Once again, these various ads can be stored on the ad dispatch server or other server and determined based upon the particular capabilities of each client device. Thus, a sender (e.g., a vendor) would not need to know the specifics of the client devices that the ads are being sent to.” Chmaytelli ’453 at [0061].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and |

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| | connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>“FIG. 7A is a block diagram of a system that can be used by a sender to deliver the ads, according to at least one embodiment of the invention. A client device 300 can include a user interface 312 (e.g., keypad, buttons, speaker, indicator light, display, and the like) operably coupled to a CAM system 310, as previously discussed. An ad generation system 720 can include a CAM console 722 that allows a sender to access the system 720 and generate the ads including the location-based data (e.g., specific longitude, latitude and radius). The CAM console can be either at the carrier network or at a remote trusted sender (e.g., merchant, developer, government entity and the like). Optionally, an access gateway 724 can be coupled between the CAM console 722 and the ad dispatch server 130. The access gateway 724 can be configured to provide secure communications between the CAM console 722 and the ad dispatch server 130, using encryption and/or other techniques known in the art. Further, the CAM console can be coupled to the access gateway via the Internet, VPN, PSTN, wireless link, and the like.<br><br>Alternatively, if the CAM console 722 is located at the carrier network, the ad generation system 720 can be integrated into one computer-based system which can include the CAM console and ad dispatch server functionality. Further, a Short Message Service Center (SMSC) 728 can be part of the ad generation system 720 and can be used to send directed-SMS messages to the client device 300. However, other OTA data transmitting techniques can be used and SMSC 728 is not required in all embodiments of the invention.” Chmaytelli ’453 at [0075]–[0076].<br><br>“Referring to FIG. 7B, an alternative embodiment of the invention is illustrated in which a remote CAM console 740 is operably coupled to at least one additional ad dispatch server. Further, as illustrated each ad dispatch server (not illustrated) is coupled to or contained within a different carrier networks 750, 760. The configuration of FIG. 7B, allows for one common CAM console to access different carrier networks 750, 760 and ultimately the different client devices 752, 762 in communication with each network. This feature can allow a central CAM console 740 to access multiple client devices (e.g., 752, 762) residing on multiple carrier networks (e.g., 750, 760) which simplifies the dissemination of the ad to multiple carriers and can increase the delivery to the desired client devices. For example, client devices 752 in communication with a first carrier 750 and client devices 762 in communication with a second carrier 760 may be within the targeted geographic area. Accordingly, generating a targeted ad at CAM console 740 and sending it to the first carrier network 750 and the second carrier network 760 can greatly increase the number of client devices that receive the ad. The carrier networks 750, 760 can be connected to CAM console 740 by a secure links 754, 764, to limit the potential for unauthorized access to the ad dispatch servers and client devices. Accordingly, links 754, 764 can be connections via the Internet, virtual private network (VPN), public switched telephone network |

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| | (PSTN), and/or a wireless link using secure transmission capabilities as is known in the art. Likewise, those skilled in the art will appreciate that more than one CAM console can be connected to a carrier network/ad dispatch server.” Chmaytelli ’453 at [0077].<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed |

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| | above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can |

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| | further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087]. |

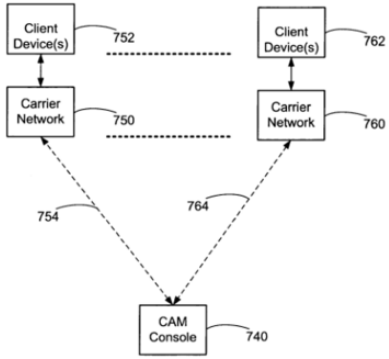
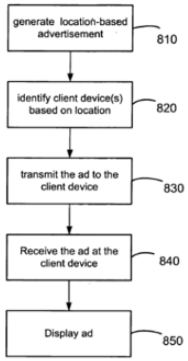
| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| [1a] registering a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “registering a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type.” For example:<br><br>“For example, there currently exist a variety of portable personal computing devices, including wireless computing devices, such as portable wireless telephones, personal digital assistants (PDAs) and paging devices that are each small, lightweight, and can be easily carried by users.” Chmaytelli ’453 at [0004].<br><br>“Further, many such cellular telephones are being manufactured with relatively large increases in computing capabilities, and as such, are becoming tantamount to small personal computers and hand-held PDAs.” Chmaytelli ’453 at [0004].<br><br>“Some of the personal computing devices utilize application programming interfaces (APIs), sometimes referred to as runtime environments and software platforms, that are installed onto their local computer platform and which are used, for example, to simplify operations of such devices, such as by providing generalized calls for device specific resources. Further, some such APIs are also known to provide software developers the ability to create software applications that are fully executable on such devices. In addition, some of such APIs are known to be operationally located between the computing device system software and the software applications such that the computing device computing functionality is made available to the software applications without requiring the software developer to have the specific computing device system source code. Further, some APIs are known to provide mechanisms for secure communications between such personal devices (i.e., clients) and remote devices (i.e., servers) using secure cryptographic information.” Chmaytelli ’453 at [0005].<br><br>“At least one such currently available end-to-end software distribution platform includes logic distributed over a server-client architecture, where the server performs, for example, billing, security and application distribution functionality, and the client performs, for example, application execution, security and user interface functionality.” Chmaytelli ’453 at [0006].<br><br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless |

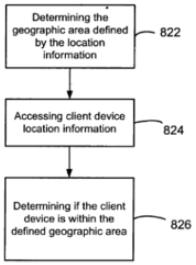
| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br><br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used |

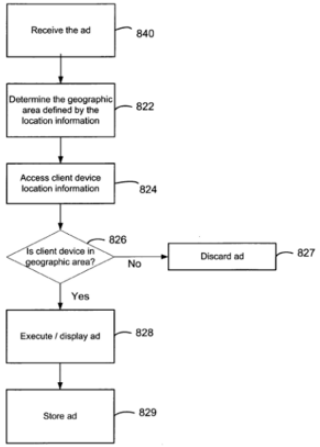
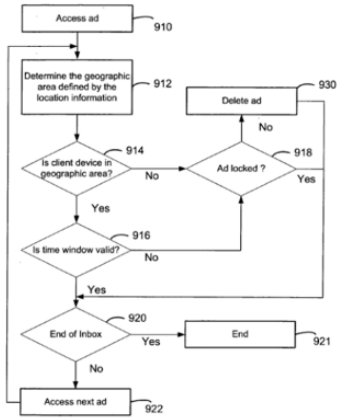
| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., |

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| | GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“Additionally, the CAM system can be optionally downloaded to the client device as part of a purchased bundle. Also, the end-user can voluntarily download the CAM system. This can be accomplished by sending an OTA messsage(e.g., SMS) to the client device containing the URL of the download location. Further flyers or direct mailings can be used to distribute downloading information. Once the CAM is installed, the device can receive and present ads and marketing information to the end-user as described in the foregoing.” Chmaytelli ’453 at [0059].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., |

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| | every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [1b] establishing a plurality of perimeters defining a plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “establishing a plurality of perimeters defining a plurality of geographic areas.” For example: |

| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| |  <br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>  <br>Fig. 8A |

| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | Chmaytelli ’453 at FIG. 8A.<br>  <br><br>Fig. 8B<br>Chmaytelli ’453 at FIG. 8B. |

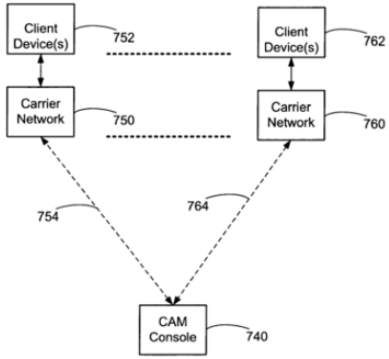
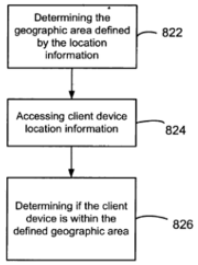
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| |  <br>Fig. 8C<br>Chmaytelli ’453 at FIG. 8C.<br>  <br>Fig. 9 |

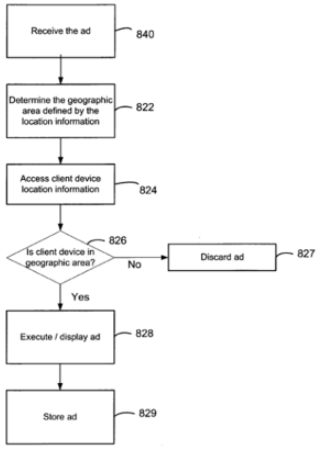
| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | Chmaytelli ’453 at FIG. 9.<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the |

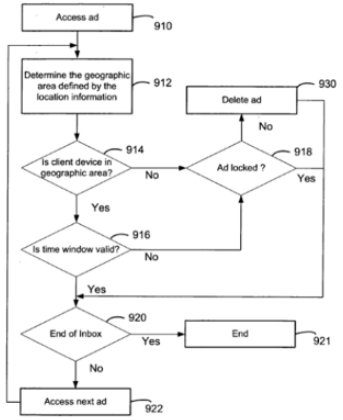
| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can |

| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087]. |

| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [1c] reserving delivery of content from a plurality of sponsors to the plurality of registered application programs on the basis of both a geographic area and an application program type associated with each of the plurality of registered application programs; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “reserving delivery of content from a plurality of sponsors to the plurality of registered application programs on the basis of both a geographic area and an application program type associated with each of the plurality of registered application programs.” For example: |

| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| |  <br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>  <br>Fig. 8B |

| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | Chmaytelli ’453 at FIG. 8B.<br>  <br><br>Fig. 8C<br>Chmaytelli ’453 at FIG. 8C. |

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| |  <br>Fig. 9<br>Chmaytelli ’453 at FIG. 9.<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will |

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| | appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application |

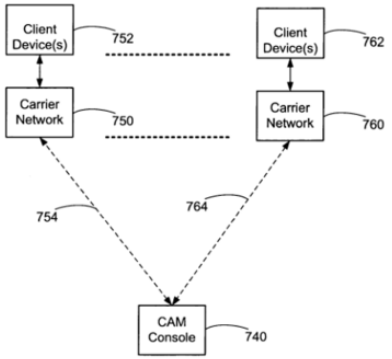
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| | programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As |

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| | discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use |

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| | the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within |

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| | the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position |

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| | of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions |

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| | with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [1d] receiving, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “receiving, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas.” For example:<br>  <br><br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad. |

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| | Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in |

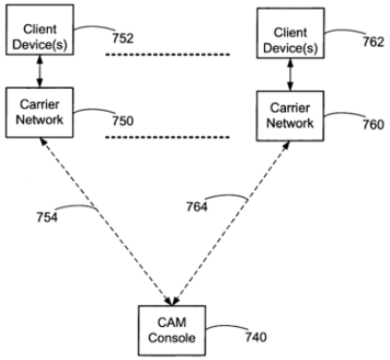
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| | the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the |

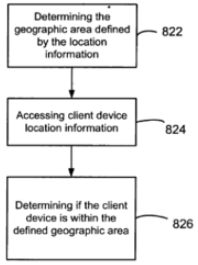
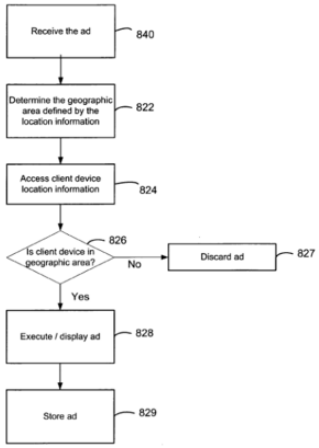
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| | targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions |

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| | with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [1e] providing the sponsor a response to the request; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “providing the sponsor a response to the request.” For example:<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad |

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| | response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [1f] storing a record of the interest in the selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “storing a record of the interest in the selected one of the plurality of geographic areas.” For example:<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can |

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| | present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |

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| [1g] receiving, from the sponsor, content to be delivered to registered application programs having target locations contained within the selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “receiving, from the sponsor, content to be delivered to registered application programs having target locations contained within the selected one of the plurality of geographic areas.” For example:<br>  <br><br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B. |

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| |  <br>Fig. 8B<br>Chmaytelli ’453 at FIG. 8B.<br>  <br>Fig. 8C |

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| | Chmaytelli ’453 at FIG. 8C.<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the |

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| | previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can |

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| | further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087]. |

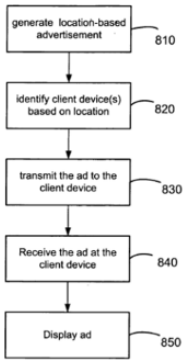
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| | To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [1h] receiving, from a registered application program, a request for content to be used within the registered application program; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “receiving, from a registered application program, a request for content to be used within the registered application program.” For example:<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the |

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| | SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [1i] in response to receiving the request: | See claim limitations [1j]–[1k] below. |



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| [1j] selecting content from at least one sponsor to be delivered to the registered application program, subject to the reserving; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “selecting content from at least one sponsor to be delivered to the registered application program, subject to the reserving.” For example:<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043]. |

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| [1k] providing the content from the at least one sponsor to the registered application program. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “providing the content from the at least one sponsor to the registered application program.” For example:<br>  <br><br>Fig. 8A |

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| | Chmaytelli ’453 at FIG. 8A.<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions |

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| | with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 2[pre]. The method of claim 1, further comprising: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he method of claim 1.” *See* claim 1 limitations above.<br><br>*See* above at row 1[pre]. |
| [2a] recording a request identifier associated with the request; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “recording a request identifier associated with the request.” For example:<br><br>“For example, a typical format to call an application on a BREW® enabled device is //BREW:<APP ID>:<Payload>. The App ID is a unique number that identifies the BREW® application. Payload is the data for the called application. Accordingly, at least one embodiment of the present invention can include a CAM specific call (App ID) and payload. For example, a system notification to users of a CAM enabled device of a discount at resturaunt can include a format such as “//BREW:<CAM ID>:[X][Y][R][T][Popup Text][URL]”, where “[“ and “]” are separators, X and Y define center of a circle of interest, R is the radius of the circle of interest, T can be expiration time/date of the ad, Popup Text is the message shown to the user, (e.g. “XYZ Lunch Special all items 20% off”) and URL is a URL (e.g., “http://www.XYZ.com/2004/12/09/lunch.html”) to which the client device will connect to retrieve the additional information regarding the ad (e.g., current lunch menu). Those skilled in the art will appreciate that other configurations of the ad can be used and a variety of the different data types can be used to define the geographic area of interest. For example, the payload can contain, an ad ID so that delivery of the ad can be tracked, and additional coding to activate features of the CAM system discussed herein, such as a calling predefined HTML templates, audible signals, indicator lights, and the like. Further, the location information can be any type of information that defines a targeted area and is not limited to latitude and longitude coordinates.” Chmaytelli ’453 at [0069].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results. |

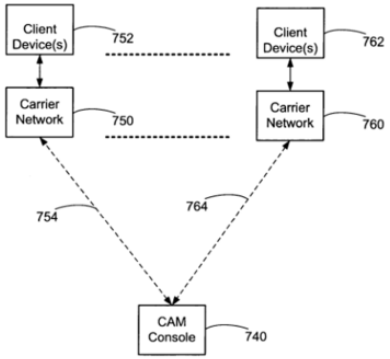
| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [2b] providing the request identifier to the registered application program. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “providing the request identifier to the registered application program.” For example:<br><br>“For example, a typical format to call an application on a BREW® enabled device is //BREW:<APP ID>:<Payload>. The App ID is a unique number that identifies the BREW® application. Payload is the data for the called application. Accordingly, at least one embodiment of the present invention can include a CAM specific call (App ID) and payload. For example, a system notification to users of a CAM enabled device of a discount at resturaunt can include a format such as “//BREW:<CAM ID>:[X][Y][R][T][Popup Text][URL]”, where “[“ and “]” are separators, X and Y define center of a circle of interest, R is the radius of the circle of interest, T can be expiration time/date of the ad, Popup Text is the message shown to the user, (e.g. “XYZ Lunch Special all items 20% off”) and URL is a URL (e.g., “http://www.XYZ.com/2004/12/09/lunch.html”) to which the client device will connect to retrieve the additional information regarding the ad (e.g., current lunch menu). Those skilled in the art will appreciate that other configurations of the ad can be used and a variety of the different data types can be used to define the geographic area of interest. For example, the payload can contain, an ad ID so that delivery of the ad can be tracked, and additional coding to activate features of the CAM system discussed herein, such as a calling predefined HTML templates, audible signals, indicator lights, and the like. Further, the location information can be any type of information that defines a targeted area and is not limited to latitude and longitude coordinates.” Chmaytelli ’453 at [0069].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results. |

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| | Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 3[pre]. The method of claim 2, further comprising: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he method of claim 2.” *See* claim 2 limitations above.<br>*See* above at row 1[pre]. |
| [3a] receiving information related to user interaction with the provided content, the information including the request identifier; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “receiving information related to user interaction with the provided content, the information including the request identifier.” For example:<br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not |



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| | have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [3b] providing additional content to the registered application in response to the received information. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “providing additional content to the registered application in response to the received information.” For example:<br><br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining |

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| | prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 4[pre]. The method of claim 1, further comprising: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he method of claim 1.” *See* claim 1 limitations above.<br><br>*See* above at row 1[pre]. |
| [4a] determining whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “determining whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location.” For example:<br>  <br><br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a |

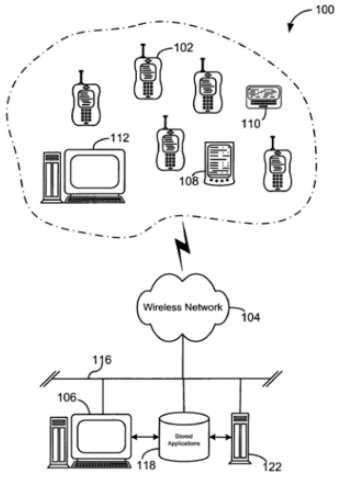
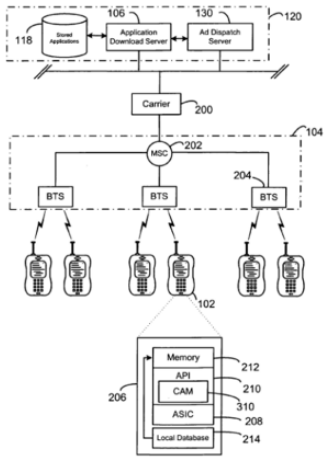
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| | position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely. |

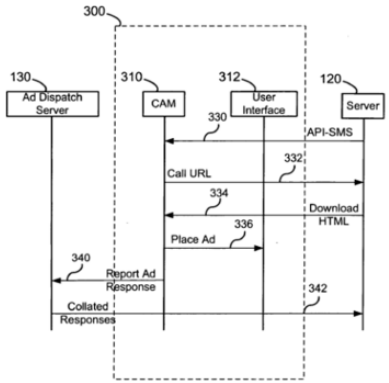
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| | The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is |

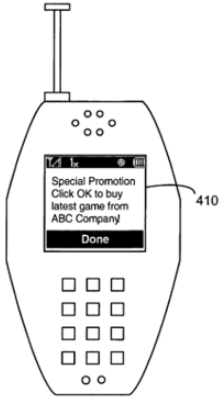
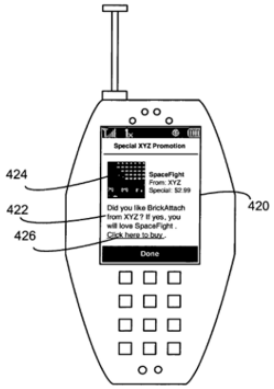
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| | accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results. |

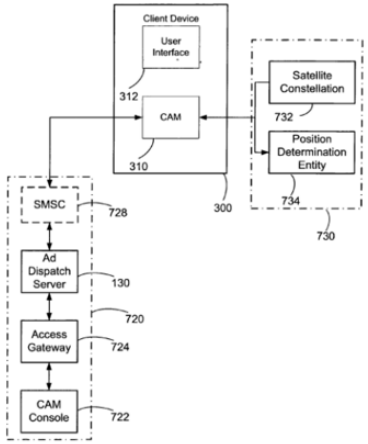
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| | Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [4b] in response to a negative determination, increasing the predetermined radial distance. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “in response to a negative determination, increasing the predetermined radial distance.” For example:<br>*See also* Chmaytelli ’453 at [0078]–[0083] and [0089].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 5[pre]. The method of claim 1, further comprising: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he method of claim 1.” *See* claim 1 limitations above.<br>*See* above at row 1[pre]. |
| 5[a] reserving a specific one of the plurality of geographic areas for exclusive delivery of content | Chmaytelli ’453 expressly or inherently discloses and renders obvious “reserving a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality |

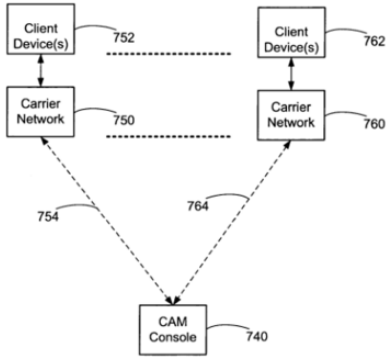
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| associated with a particular one of the plurality of sponsors to registered application programs and having a target location contained within the specific one of the plurality of geographic areas. | of sponsors to registered application programs and having a target location contained within the specific one of the plurality of geographic areas.” For example:<br><br>*See also* Chmaytelli ’453 at [0043], [0069], and [0078]–[0083].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 6[pre]. A system comprising: | To the extent the preamble is limiting, Chmaytelli ’453 expressly or inherently discloses and renders obvious “[a] system.” *See* limitations [6a]–[6m] below.<br><br>*See* above at row 1[pre]. |
| [6a] memory; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “memory.” For example: |

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| |  <br>Fig. 1<br>Chmaytelli ’453 at FIG. 1.<br>  <br>Fig. 2 |

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| | Chmaytelli ’453 at FIG. 2.<br>  <br><br>Fig. 3<br>Chmaytelli ’453 at FIG. 3. |

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| |  <br>Fig. 4A<br>Chmaytelli ’453 at FIG. 4A.<br>  <br>Fig. 4B |

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| | Chmaytelli ’453 at FIG. 4B.<br>  <br><br>Fig. 7A<br>Chmaytelli ’453 at FIG. 7A. |

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| |  <br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will |

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| | appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application |

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| | programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As |

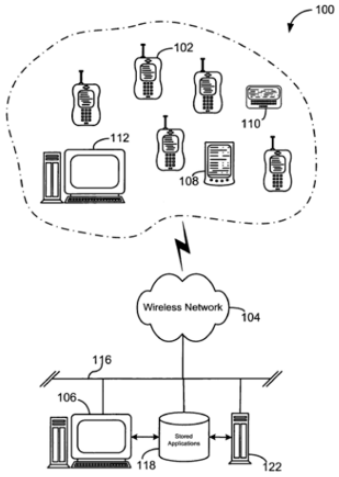
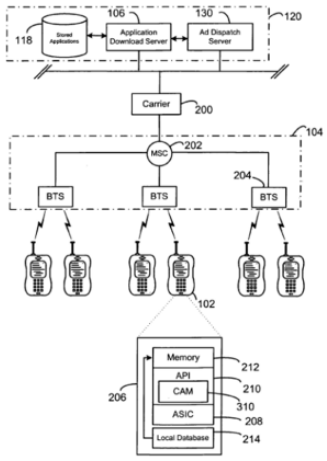
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| | discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“FIG. 4A illustrates an example of an ad on a small screen client device. Small screen ads 410 can be primarily text based and contain less information than large screen ads. FIG. 4B illustrates an example of an ad on a large screen device. The large screen ad 420 can contain both text 422 and an image 424, thus increasing the ad's appeal to the end-user. Additionally, the larger ad can also contain other features, such as a link 426 to an online store, further facilitating the ease of use for the end-user. Larger screen devices can allow for much richer ads, optionally containing screenshots for applications or other marketing related graphics. Based on the particular application, the minimum device screen size, for example, can be chosen as the basis for determining the type of message sent. Once again, these various ads can be stored on the ad dispatch server or other server and determined based upon the particular capabilities of each client device. Thus, a sender (e.g., a vendor) would not need to know the specifics of the client devices that the ads are being sent to.” Chmaytelli ’453 at [0061].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and |

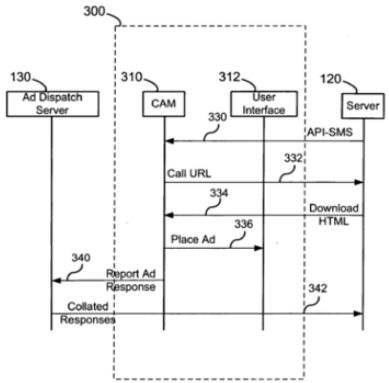
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| | connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>“FIG. 7A is a block diagram of a system that can be used by a sender to deliver the ads, according to at least one embodiment of the invention. A client device 300 can include a user interface 312 (e.g., keypad, buttons, speaker, indicator light, display, and the like) operably coupled to a CAM system 310, as previously discussed. An ad generation system 720 can include a CAM console 722 that allows a sender to access the system 720 and generate the ads including the location-based data (e.g., specific longitude, latitude and radius). The CAM console can be either at the carrier network or at a remote trusted sender (e.g., merchant, developer, government entity and the like). Optionally, an access gateway 724 can be coupled between the CAM console 722 and the ad dispatch server 130. The access gateway 724 can be configured to provide secure communications between the CAM console 722 and the ad dispatch server 130, using encryption and/or other techniques known in the art. Further, the CAM console can be coupled to the access gateway via the Internet, VPN, PSTN, wireless link, and the like.<br><br>Alternatively, if the CAM console 722 is located at the carrier network, the ad generation system 720 can be integrated into one computer-based system which can include the CAM console and ad dispatch server functionality. Further, a Short Message Service Center (SMSC) 728 can be part of the ad generation system 720 and can be used to send directed-SMS messages to the client device 300. However, other OTA data transmitting techniques can be used and SMSC 728 is not required in all embodiments of the invention.” Chmaytelli ’453 at [0075]–[0076].<br><br>“Referring to FIG. 7B, an alternative embodiment of the invention is illustrated in which a remote CAM console 740 is operably coupled to at least one additional ad dispatch server. Further, as illustrated each ad dispatch server (not illustrated) is coupled to or contained within a different carrier networks 750, 760. The configuration of FIG. 7B, allows for one common CAM console to access different carrier networks 750, 760 and ultimately the different client devices 752, 762 in communication with each network. This feature can allow a central CAM console 740 to access multiple client devices (e.g., 752, 762) residing on multiple carrier networks (e.g., 750, 760) which simplifies the dissemination of the ad to multiple carriers and can increase the delivery to the desired client devices. For example, client devices 752 in communication with a first carrier 750 and client devices 762 in communication with a second carrier 760 may be within the targeted geographic area. Accordingly, generating a targeted ad at CAM console 740 and sending it to the first carrier network 750 and the second carrier network 760 can greatly increase the number of client devices that receive the ad. The carrier networks 750, 760 can be connected to CAM console 740 by a secure links 754, 764, to limit the potential for unauthorized access to the ad dispatch servers and client devices. Accordingly, links 754, 764 can be connections via the Internet, virtual private network (VPN), public switched telephone network |

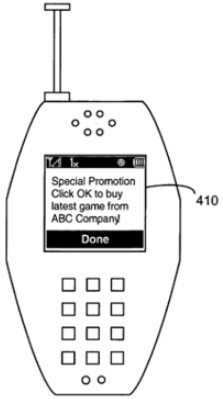
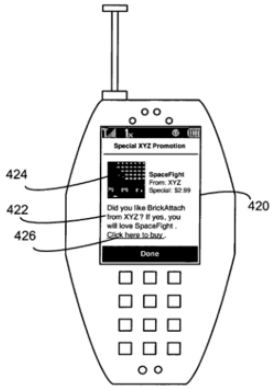
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| | (PSTN), and/or a wireless link using secure transmission capabilities as is known in the art. Likewise, those skilled in the art will appreciate that more than one CAM console can be connected to a carrier network/ad dispatch server.” Chmaytelli ’453 at [0077].<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed |

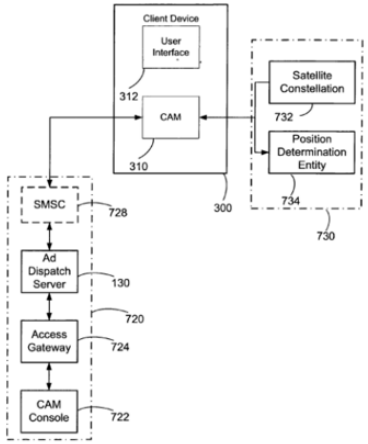
| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can |

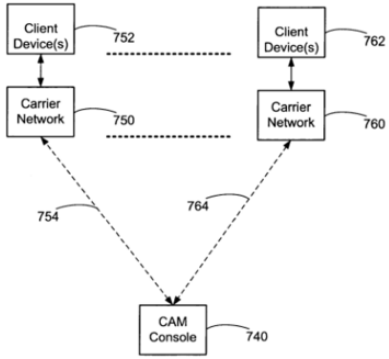
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| | further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6b] a communications interface operably coupled to the memory; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “a communications interface operably coupled to the memory.” For example: |

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| |  <br>Fig. 1<br>Chmaytelli ’453 at FIG. 1.<br>  <br>Fig. 2 |

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| | Chmaytelli ’453 at FIG. 2.<br>  <br><br>Fig. 3<br>Chmaytelli ’453 at FIG. 3. |

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| |  <br>Fig. 4A<br>Chmaytelli ’453 at FIG. 4A.<br>  <br>Fig. 4B |

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| | Chmaytelli ’453 at FIG. 4B.<br>  <br><br>Fig. 7A<br>Chmaytelli ’453 at FIG. 7A. |

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| |  <br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will |

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| | appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application |

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| | programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As |

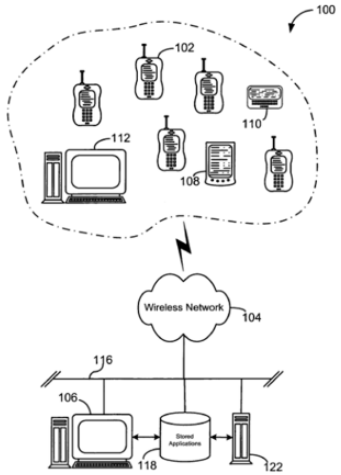
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| | discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“FIG. 4A illustrates an example of an ad on a small screen client device. Small screen ads 410 can be primarily text based and contain less information than large screen ads. FIG. 4B illustrates an example of an ad on a large screen device. The large screen ad 420 can contain both text 422 and an image 424, thus increasing the ad's appeal to the end-user. Additionally, the larger ad can also contain other features, such as a link 426 to an online store, further facilitating the ease of use for the end-user. Larger screen devices can |

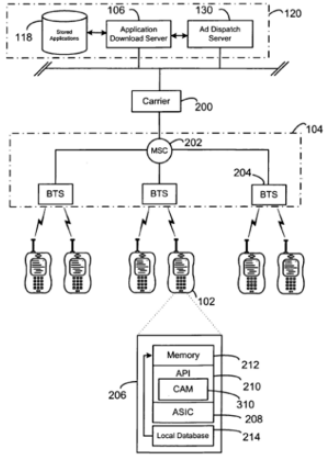
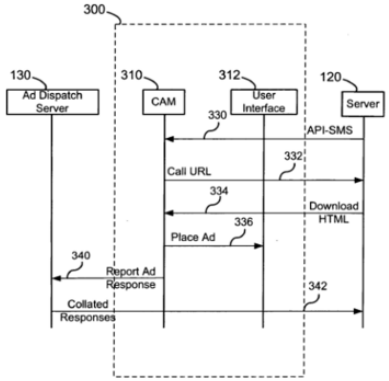
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| | allow for much richer ads, optionally containing screenshots for applications or other marketing related graphics. Based on the particular application, the minimum device screen size, for example, can be chosen as the basis for determining the type of message sent. Once again, these various ads can be stored on the ad dispatch server or other server and determined based upon the particular capabilities of each client device. Thus, a sender (e.g., a vendor) would not need to know the specifics of the client devices that the ads are being sent to.” Chmaytelli ’453 at [0061].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>“FIG. 7A is a block diagram of a system that can be used by a sender to deliver the ads, according to at least one embodiment of the invention. A client device 300 can include a user interface 312 (e.g., keypad, buttons, speaker, indicator light, display, and the like) operably coupled to a CAM system 310, as previously discussed. An ad generation system 720 can include a CAM console 722 that allows a sender to access the system 720 and generate the ads including the location-based data (e.g., specific longitude, latitude and radius). The CAM console can be either at the carrier network or at a remote trusted sender (e.g., merchant, developer, government entity and the like). Optionally, an access gateway 724 can be coupled between the CAM console 722 and the ad dispatch server 130. The access gateway 724 can be configured to provide secure communications between the CAM console 722 and the ad dispatch server 130, using encryption and/or other techniques known in the art. Further, the CAM console can be coupled to the access gateway via the Internet, VPN, PSTN, wireless link, and the like. |

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| | Alternatively, if the CAM console 722 is located at the carrier network, the ad generation system 720 can be integrated into one computer-based system which can include the CAM console and ad dispatch server functionality. Further, a Short Message Service Center (SMSC) 728 can be part of the ad generation system 720 and can be used to send directed-SMS messages to the client device 300. However, other OTA data transmitting techniques can be used and SMSC 728 is not required in all embodiments of the invention.” Chmaytelli ’453 at [0075]–[0076].<br><br>“Referring to FIG. 7B, an alternative embodiment of the invention is illustrated in which a remote CAM console 740 is operably coupled to at least one additional ad dispatch server. Further, as illustrated each ad dispatch server (not illustrated) is coupled to or contained within a different carrier networks 750, 760. The configuration of FIG. 7B, allows for one common CAM console to access different carrier networks 750, 760 and ultimately the different client devices 752, 762 in communication with each network. This feature can allow a central CAM console 740 to access multiple client devices (e.g., 752, 762) residing on multiple carrier networks (e.g., 750, 760) which simplifies the dissemination of the ad to multiple carriers and can increase the delivery to the desired client devices. For example, client devices 752 in communication with a first carrier 750 and client devices 762 in communication with a second carrier 760 may be within the targeted geographic area. Accordingly, generating a targeted ad at CAM console 740 and sending it to the first carrier network 750 and the second carrier network 760 can greatly increase the number of client devices that receive the ad. The carrier networks 750, 760 can be connected to CAM console 740 by a secure links 754, 764, to limit the potential for unauthorized access to the ad dispatch servers and client devices. Accordingly, links 754, 764 can be connections via the Internet, virtual private network (VPN), public switched telephone network (PSTN), and/or a wireless link using secure transmission capabilities as is known in the art. Likewise, those skilled in the art will appreciate that more than one CAM console can be connected to a carrier network/ad dispatch server.” Chmaytelli ’453 at [0077].<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad. |

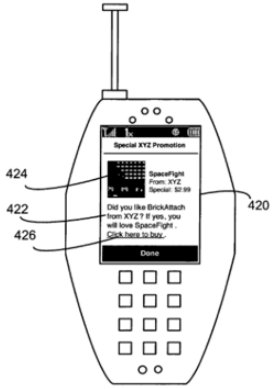
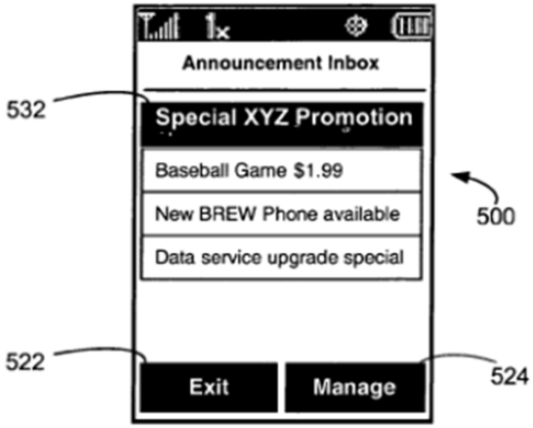
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| | Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in |

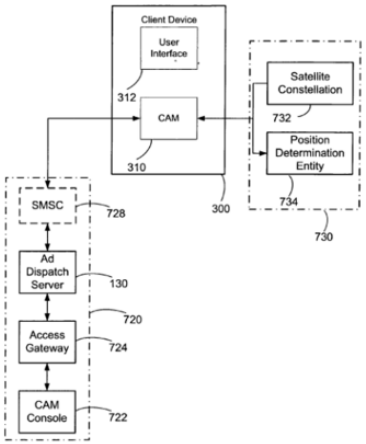
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| | the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining |

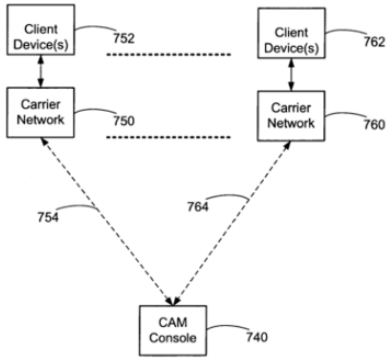
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| | prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6c] at least one processor operably coupled to the memory and the communications interface, the processor configured to execute a program of instructions, the program of instructions comprising: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one processor operably coupled to the memory and the communications interface, the processor configured to execute a program of instructions, the program of instructions.” For example:<br>  <br><br>Fig. 1<br>Chmaytelli ’453 at FIG. 1. |

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| |  <br>Fig. 2<br>Chmaytelli ’453 at FIG. 2.<br>  <br>Fig. 3 |

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| | Chmaytelli ’453 at FIG. 3.<br>  <br><br>Fig. 4A<br>Chmaytelli ’453 at FIG. 4A. |

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| |  <br>Fig. 4B<br>Chmaytelli ’453 at FIG. 4B.<br>  <br>Fig. 5 |

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| | Chmaytelli ’453 at FIG. 5.<br>  <br><br>Fig. 6<br>Chmaytelli ’453 at FIG. 6.<br>  <br><br>Fig. 7A |

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| | Chmaytelli ’453 at FIG. 7A.<br>  <br><br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications |

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| | that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic |

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| | circuit, or other data processing device. The ASIC 208 or other processor executes the application programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual |

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| | private network, and the like, thus allowing the client device access to a broader communication network. As discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“FIG. 4A illustrates an example of an ad on a small screen client device. Small screen ads 410 can be primarily text based and contain less information than large screen ads. FIG. 4B illustrates an example of an ad on a large screen device. The large screen ad 420 can contain both text 422 and an image 424, thus increasing the ad's appeal to the end-user. Additionally, the larger ad can also contain other features, such as a |

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| | link 426 to an online store, further facilitating the ease of use for the end-user. Larger screen devices can allow for much richer ads, optionally containing screenshots for applications or other marketing related graphics. Based on the particular application, the minimum device screen size, for example, can be chosen as the basis for determining the type of message sent. Once again, these various ads can be stored on the ad dispatch server or other server and determined based upon the particular capabilities of each client device. Thus, a sender (e.g., a vendor) would not need to know the specifics of the client devices that the ads are being sent to.” Chmaytelli ’453 at [0061].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>“FIG. 7A is a block diagram of a system that can be used by a sender to deliver the ads, according to at least one embodiment of the invention. A client device 300 can include a user interface 312 (e.g., keypad, buttons, speaker, indicator light, display, and the like) operably coupled to a CAM system 310, as previously discussed. An ad generation system 720 can include a CAM console 722 that allows a sender to access the system 720 and generate the ads including the location-based data (e.g., specific longitude, latitude and radius). The CAM console can be either at the carrier network or at a remote trusted sender (e.g., merchant, developer, government entity and the like). Optionally, an access gateway 724 can be coupled between the CAM console 722 and the ad dispatch server 130. The access gateway 724 can be configured to provide secure communications between the CAM console 722 and the ad dispatch server 130, using encryption and/or other techniques known in the art. Further, the CAM console can be coupled to the access gateway via the Internet, VPN, PSTN, wireless link, and the like. |

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| | Alternatively, if the CAM console 722 is located at the carrier network, the ad generation system 720 can be integrated into one computer-based system which can include the CAM console and ad dispatch server functionality. Further, a Short Message Service Center (SMSC) 728 can be part of the ad generation system 720 and can be used to send directed-SMS messages to the client device 300. However, other OTA data transmitting techniques can be used and SMSC 728 is not required in all embodiments of the invention.” Chmaytelli ’453 at [0075]–[0076].<br><br>“Referring to FIG. 7B, an alternative embodiment of the invention is illustrated in which a remote CAM console 740 is operably coupled to at least one additional ad dispatch server. Further, as illustrated each ad dispatch server (not illustrated) is coupled to or contained within a different carrier networks 750, 760. The configuration of FIG. 7B, allows for one common CAM console to access different carrier networks 750, 760 and ultimately the different client devices 752, 762 in communication with each network. This feature can allow a central CAM console 740 to access multiple client devices (e.g., 752, 762) residing on multiple carrier networks (e.g., 750, 760) which simplifies the dissemination of the ad to multiple carriers and can increase the delivery to the desired client devices. For example, client devices 752 in communication with a first carrier 750 and client devices 762 in communication with a second carrier 760 may be within the targeted geographic area. Accordingly, generating a targeted ad at CAM console 740 and sending it to the first carrier network 750 and the second carrier network 760 can greatly increase the number of client devices that receive the ad. The carrier networks 750, 760 can be connected to CAM console 740 by a secure links 754, 764, to limit the potential for unauthorized access to the ad dispatch servers and client devices. Accordingly, links 754, 764 can be connections via the Internet, virtual private network (VPN), public switched telephone network (PSTN), and/or a wireless link using secure transmission capabilities as is known in the art. Likewise, those skilled in the art will appreciate that more than one CAM console can be connected to a carrier network/ad dispatch server.” Chmaytelli ’453 at [0077].<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad. |

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| | Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in |

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| | the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining |

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| | prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6d] at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type.” For example:<br>“For example, there currently exist a variety of portable personal computing devices, including wireless computing devices, such as portable wireless telephones, personal digital assistants (PDAs) and paging devices that are each small, lightweight, and can be easily carried by users.” Chmaytelli ’453 at [0004].<br>“Further, many such cellular telephones are being manufactured with relatively large increases in computing capabilities, and as such, are becoming tantamount to small personal computers and hand-held PDAs.” Chmaytelli ’453 at [0004].<br>“Some of the personal computing devices utilize application programming interfaces (APIs), sometimes referred to as runtime environments and software platforms, that are installed onto their local computer platform and which are used, for example, to simplify operations of such devices, such as by providing generalized calls for device specific resources. Further, some such APIs are also known to provide software developers the ability to create software applications that are fully executable on such devices. In addition, some of such APIs are known to be operationally located between the computing device system software and the software applications such that the computing device computing functionality is made available to the software applications without requiring the software developer to have the specific computing device system source code. Further, some APIs are known to provide mechanisms for secure communications between such personal devices (i.e., clients) and remote devices (i.e., servers) using secure cryptographic information.” Chmaytelli ’453 at [0005].<br>“At least one such currently available end-to-end software distribution platform includes logic distributed over a server-client architecture, where the server performs, for example, billing, security and application distribution functionality, and the client performs, for example, application execution, security and user interface functionality.” Chmaytelli ’453 at [0006].<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server |

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| | 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br><br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC |

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| | 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described |

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| | herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“Additionally, the CAM system can be optionally downloaded to the client device as part of a purchased bundle. Also, the end-user can voluntarily download the CAM system. This can be accomplished by sending an OTA messsage(e.g., SMS) to the client device containing the URL of the download location. Further flyers or direct mailings can be used to distribute downloading information. Once the CAM is installed, the device can receive and present ads and marketing information to the end-user as described in the foregoing.” Chmaytelli ’453 at [0059].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in |

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| | the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6e] at least one instruction to establish a plurality of perimeters defining a plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to establish a plurality of perimeters defining a plurality of geographic areas.” For example:<br><br>*See* above at row [1b].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this |

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| | limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6f] at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application program types and at least one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application program types and at least one of the plurality of geographic areas.” For example:<br><br>*See* above at row [1c].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |

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| [6g] at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas.” For example:<br><br>*See* above at row [1d].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6h] at least one instruction to provide the sponsor a response to the request; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to provide the sponsor a response to the request.” For example:<br><br>*See* above at row [1e].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining |

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| | prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6i] at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas.” For example:<br>*See* above at row [1f].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6j] at least one instruction to receive, from the sponsor, content to be delivered to registered application programs having target locations contained within the selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to receive, from the sponsor, content to be delivered to registered application programs having target locations contained within the selected one of the plurality of geographic areas.” For example:<br>*See* above at row [1g].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the |

| ’296 Patent Claim Language | Exemplary Disclosure in US20060253453A1 (“Chmaytelli ’453”) |
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| | knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6k] at least one instruction to receive a request from a registered application program for content to be used within the registered application program; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to receive a request from a registered application program for content to be used within the registered application program.” For example:<br><br>*See* above at row [1h].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6l] at least one instruction to select content associated with at least one of the plurality of sponsors, to be delivered to the | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to select content associated with at least one of the plurality of sponsors, to be delivered to the registered application |

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| registered application program of a specific type, in accordance with a content delivery reservation associating the at least one sponsor with a geographic area and a registered application program type; and | program of a specific type, in accordance with a content delivery reservation associating the at least one sponsor with a geographic area and a registered application program type.” For example:<br><br>*See* above at row [1j].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [6m] at least one instruction to provide the selected content to the registered application program. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to provide the selected content to the registered application program.” For example:<br><br>*See* above at row [1k].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. |

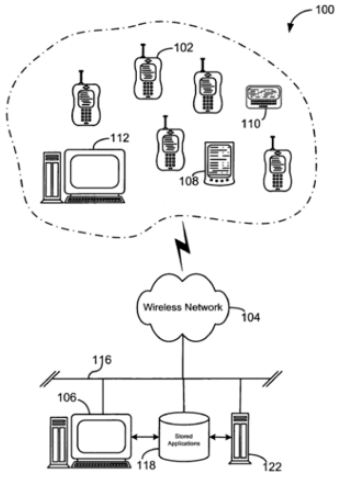
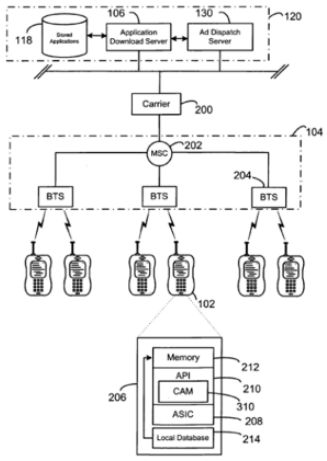
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| | Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 7[pre]. The system of claim 6, wherein the program of instructions further comprises: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he system of claim 6.” *See* claim 6 limitations above.<br>*See* above at row 1[pre]. |
| [7a] at least one instruction to record a request identifier associated with the request; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to record a request identifier associated with the request.” For example:<br>*See* above at row [2a].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [7b] at least one instruction to provide the request identifier to the registered application program. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to provide the request identifier to the registered application program.” For example:<br>*See* above at row [2b].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including |

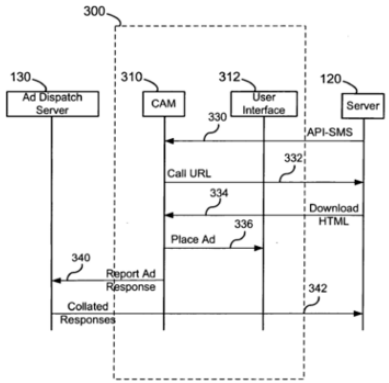
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| | one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 8[pre]. The system of claim 7, wherein the program of instructions further comprises: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he system of claim 7.” *See* claim 7 limitations above.<br><br>*See* above at row 1[pre]. |
| [8a] at least one instruction to receive information related to user interaction with the provided content, the information including the request identifier; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to receive information related to user interaction with the provided content, the information including the request identifier.” For example:<br><br>*See* above at row [3a].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions |

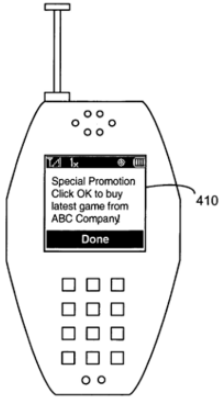
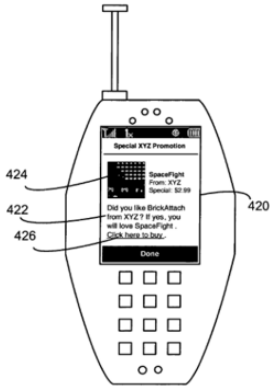
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| | with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [8b] at least one instruction to provide additional content to the registered application in response to the received information. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to provide additional content to the registered application in response to the received information.” For example:<br>*See* above at row [3b].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 9[pre]. The system of claim 6, wherein the program of instructions further comprises: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he system of claim 6.” *See* claim 6 limitations above.<br>*See* above at row 1[pre]. |
| [9a] at least one instruction to determine whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to determine whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location.” For example:<br>*See* above at row [4a].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including |

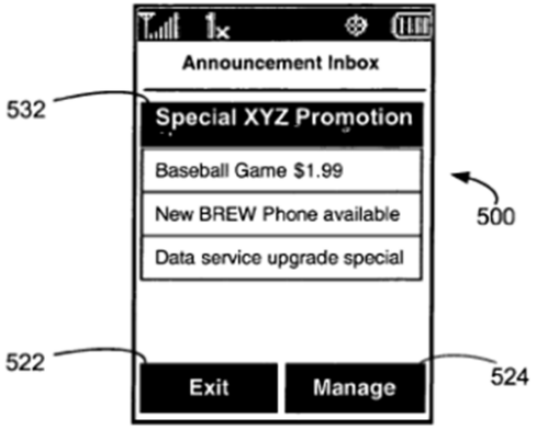
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| | one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [9b] at least one instruction to increase the predetermined radial distance in response to the at least one instruction to determine. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to increase the predetermined radial distance in response to the at least one instruction to determine.” For example:<br><br>*See* above at row [4b].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 10[pre]. The system of claim 6, wherein the program of instructions further comprises: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he system of claim 6.” *See* claim 6 limitations above. |

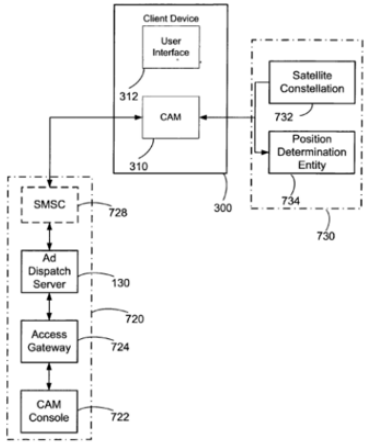
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| | *See* above at row 1[pre]. |
| [10a] at least one instruction to reserve a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to registered application programs and having a target location contained within the specific one of the plurality of geographic areas. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to reserve a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to registered application programs and having a target location contained within the specific one of the plurality of geographic areas.” For example:<br>*See* above at row 5[a].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 11[pre]. A non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising: | To the extent the preamble is limiting, Chmaytelli ’453 expressly or inherently discloses and renders obvious “[a] non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions.” See limitations [11a] – [11j] below. Also, for example:<br>“Systems and methods for sending and receiving ads from a server to a client device are disclosed. The ads can be sent based on the location of the client device and/or a designated time window. An ad manager on the client device can display, store and manage the received ads and activated additional applications based on the content of the ad.” Chmaytelli ’453 at Abstract. |

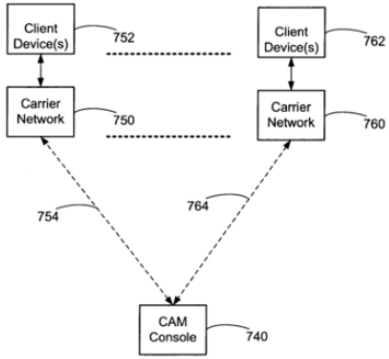
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| |  <br>Fig. 1<br>Chmaytelli ’453 at FIG. 1.<br>  <br>Fig. 2 |

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| | Chmaytelli ’453 at FIG. 2.<br>  <br><br>Fig. 3<br>Chmaytelli ’453 at FIG. 3. |

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| |  <br>Fig. 4A<br>Chmaytelli ’453 at FIG. 4A.<br>  <br>Fig. 4B |

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| | Chmaytelli ’453 at FIG. 4B.<br>  <br><br>Fig. 5<br>Chmaytelli ’453 at FIG. 5.<br>  <br><br>Fig. 6 |

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| | Chmaytelli ’453 at FIG. 6.<br>  <br><br>Fig. 7A<br>Chmaytelli ’453 at FIG. 7A. |

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| |  <br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will |

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| | appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application |

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| | programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As |

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| | discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the |

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| | data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br><br>“FIG. 4A illustrates an example of an ad on a small screen client device. Small screen ads 410 can be primarily text based and contain less information than large screen ads. FIG. 4B illustrates an example of an ad on a large screen device. The large screen ad 420 can contain both text 422 and an image 424, thus increasing the ad's appeal to the end-user. Additionally, the larger ad can also contain other features, such as a link 426 to an online store, further facilitating the ease of use for the end-user. Larger screen devices can allow for much richer ads, optionally containing screenshots for applications or other marketing related graphics. Based on the particular application, the minimum device screen size, for example, can be chosen as the basis for determining the type of message sent. Once again, these various ads can be stored on the ad dispatch server or other server and determined based upon the particular capabilities of each client device. Thus, a sender (e.g., a vendor) would not need to know the specifics of the client devices that the ads are being sent to.” Chmaytelli ’453 at [0061].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064]. |

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| | “FIG. 7A is a block diagram of a system that can be used by a sender to deliver the ads, according to at least one embodiment of the invention. A client device 300 can include a user interface 312 (e.g., keypad, buttons, speaker, indicator light, display, and the like) operably coupled to a CAM system 310, as previously discussed. An ad generation system 720 can include a CAM console 722 that allows a sender to access the system 720 and generate the ads including the location-based data (e.g., specific longitude, latitude and radius). The CAM console can be either at the carrier network or at a remote trusted sender (e.g., merchant, developer, government entity and the like). Optionally, an access gateway 724 can be coupled between the CAM console 722 and the ad dispatch server 130. The access gateway 724 can be configured to provide secure communications between the CAM console 722 and the ad dispatch server 130, using encryption and/or other techniques known in the art. Further, the CAM console can be coupled to the access gateway via the Internet, VPN, PSTN, wireless link, and the like.<br><br>Alternatively, if the CAM console 722 is located at the carrier network, the ad generation system 720 can be integrated into one computer-based system which can include the CAM console and ad dispatch server functionality. Further, a Short Message Service Center (SMSC) 728 can be part of the ad generation system 720 and can be used to send directed-SMS messages to the client device 300. However, other OTA data transmitting techniques can be used and SMSC 728 is not required in all embodiments of the invention.” Chmaytelli ’453 at [0075]–[0076].<br><br>“Referring to FIG. 7B, an alternative embodiment of the invention is illustrated in which a remote CAM console 740 is operably coupled to at least one additional ad dispatch server. Further, as illustrated each ad dispatch server (not illustrated) is coupled to or contained within a different carrier networks 750, 760. The configuration of FIG. 7B, allows for one common CAM console to access different carrier networks 750, 760 and ultimately the different client devices 752, 762 in communication with each network. This feature can allow a central CAM console 740 to access multiple client devices (e.g., 752, 762) residing on multiple carrier networks (e.g., 750, 760) which simplifies the dissemination of the ad to multiple carriers and can increase the delivery to the desired client devices. For example, client devices 752 in communication with a first carrier 750 and client devices 762 in communication with a second carrier 760 may be within the targeted geographic area. Accordingly, generating a targeted ad at CAM console 740 and sending it to the first carrier network 750 and the second carrier network 760 can greatly increase the number of client devices that receive the ad. The carrier networks 750, 760 can be connected to CAM console 740 by a secure links 754, 764, to limit the potential for unauthorized access to the ad dispatch servers and client devices. Accordingly, links 754, 764 can be connections via the Internet, virtual private network (VPN), public switched telephone network (PSTN), and/or a wireless link using secure transmission capabilities as is known in the art. Likewise, those |

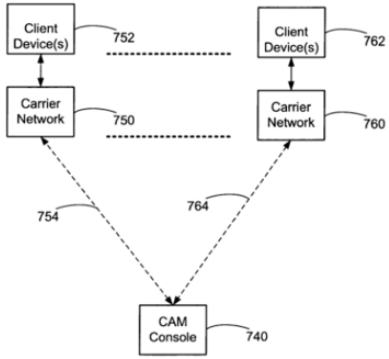
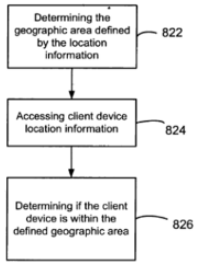
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| | skilled in the art will appreciate that more than one CAM console can be connected to a carrier network/ad dispatch server.” Chmaytelli ’453 at [0077].<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation |

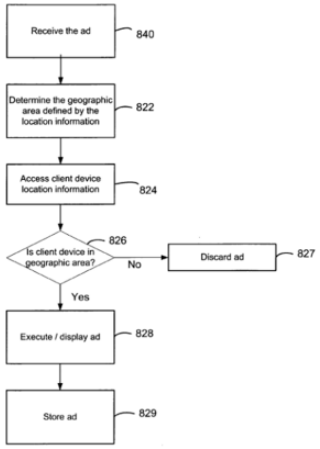
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| | system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can |

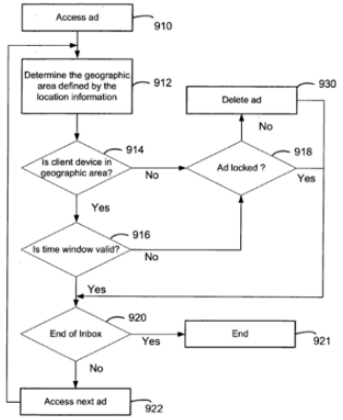
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| | further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087]. |

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| | To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [11a] at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type.” For example:<br><br>*See* above at row [6d].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |

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| [11b] at least one instruction to establish a plurality of perimeters defining respective geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to establish a plurality of perimeters defining respective geographic areas.” For example:<br><br>*See* above at row [1b].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [11c] at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application program types and at least one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application program types and at least one of the plurality of geographic areas.” For example: |

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| |  <br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>  <br>Fig. 8B |

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| | Chmaytelli ’453 at FIG. 8B.<br>  <br><br>Fig. 8C<br>Chmaytelli ’453 at FIG. 8C. |

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| |  <br>Fig. 9<br>Chmaytelli ’453 at FIG. 9.<br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted |

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| | geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates. |

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| | Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic |

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| | zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [11d] at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas.” For example:<br><br>*See* above at row [1d]. |

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| | To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [11e] at least one instruction to provide the sponsor a response to the request; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to provide the sponsor a response to the request.” For example:<br><br>*See* above at row [1e].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |

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| [11f] at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas.” For example:<br><br>*See* above at row [1f].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [11g] at least one instruction to receive, from the sponsor, content to be delivered to application programs having target locations contained within the selected one of the plurality of geographic areas; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to receive, from the sponsor, content to be delivered to application programs having target locations contained within the selected one of the plurality of geographic areas.” For example:<br><br>*See* above at row [1g].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining |

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| | prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [11h] at least one instruction to receive a request from a registered application program for content to be used within the registered application program; | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to receive a request from a registered application program for content to be used within the registered application program.” For example:<br>*See* above at row [1h].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [11i] at least one instruction to select content associated with at least one of the plurality of sponsors to be delivered to the registered application program of a specific type, in accordance with a content delivery reservation associating the at least one sponsor with a geographic area and a | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to select content associated with at least one of the plurality of sponsors to be delivered to the registered application program of a specific type, in accordance with a content delivery reservation associating the at least one sponsor with a geographic area and a registered application program type.” For example:<br>*See* above at row [1j].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including |

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| registered application program type; and | one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [11j] at least one instruction to provide the selected content to the registered application program. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to provide the selected content to the registered application program.” For example:<br><br>*See* above at row [1k].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 12[pre]. The non-transitory computer readable medium of | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he non-transitory computer readable medium of claim 11.” *See* claim 11 limitations above. |



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| claim 11, wherein the program of instructions further comprises: | *See* above at row 1[pre]. |
| [12a] at least one instruction to record a request identifier associated with the request; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to record a request identifier associated with the request.” For example:<br>*See* above at row [2a].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [12b] at least one instruction to provide the request identifier to the registered application program. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to provide the request identifier to the registered application program.” For example:<br>*See* above at row [2b].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results. |

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| | Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 13[pre]. The non-transitory computer readable medium of claim 12, wherein the program of instructions further comprises: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he non-transitory computer readable medium of claim 12.” *See* claim 12 limitations above.<br>*See* above at row 1[pre]. |
| [13a] at least one instruction to receive information related to user interaction with the provided content, the information including the request identifier; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to receive information related to user interaction with the provided content, the information including the request identifier.” For example:<br>*See* above at row [3a].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [13b] at least one instruction to provide additional content to the | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to provide additional content to the registered application in response to the received information.” For example: |



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| registered application in response to the received information. | *See* above at row [3b].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 14[pre]. The non-transitory computer readable medium of claim 11, wherein the program of instructions further comprises: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he non-transitory computer readable medium of claim 11.” *See* claim 11 limitations above.<br><br>*See* above at row 1[pre]. |
| [14a] at least one instruction to determine whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location; and | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to determine whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location.” For example:<br><br>*See* above at row [4a].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results. |

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| | Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [14b] at least one instruction to increase the predetermined radial distance in response to a negative determination. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to increase the predetermined radial distance in response to a negative determination.” For example:<br>*See* above at row [4b].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| 15[pre]. The non-transitory computer readable medium of claim 11, wherein the program of instructions further comprises: | Chmaytelli ’453 expressly or inherently discloses and renders obvious “[t]he non-transitory computer readable medium of claim 11.” *See* claim 11 limitations above.<br>*See* above at row 1[pre].<br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this |

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| | limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |
| [15a] at least one instruction to reserve a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to application programs and having a target location contained within the specific one of the plurality of geographic areas. | Chmaytelli ’453 expressly or inherently discloses and renders obvious “at least one instruction to reserve a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to application programs and having a target location contained within the specific one of the plurality of geographic areas.” For example:<br><br>*See* above at row 5[a].<br><br>To the extent that Chmaytelli ’453 does not disclose any elements of this claim limitation, this limitation is rendered obvious in light of Chmaytelli ’453 by itself, Chmaytelli ’453 combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of Chmaytelli ’453, and would have led to expected results.<br><br>Motivation to do so arises from the teachings of these references, a desire to overcome known problems, and the knowledge and common sense of a person of skill in the art. Additional motivation arises from combining prior art elements according to known methods to yield predictable results to improve a similar device. Practicing this limitation amounts to merely choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. Moreover, these references are all in comparable fields and have compatible disclosures that are readily combinable. |

**Exhibit 296.F – Invalidity of U.S. Patent No. 8,433,296 in view of Chmaytelli ’453, Macaluso ’238, Kinoshita ’866, Smith ’558, Sato ’965, Ahn ’281, Begum ’880, Begum ’606, Levkovitz ’852, Sanctis ’837, Bussmann ’294, Mello ’479, Busch ’815, Svendsen ’073, Xtify, and/or AppLoop**

Chmaytelli ’453 qualifies as prior art to U.S. Patent No. 8,433,296 (“the ’296 patent”) as shown in Exhibit 296.E. To the extent it is found that Chmaytelli ’453 does not expressly disclose certain limitations in the Asserted Claims, such limitations are disclosed, for example, in one or more of Macaluso ’238, Kinoshita ’866, Smith ’558, Sato ’965, Ahn ’281, Begum ’880, Begum ’606, Levkovitz ’852, Sanctis ’837, Bussmann ’294, Mello ’479, Busch ’815, Svendsen ’073, Xtify, and/or AppLoop.

This combination renders obvious the Asserted Claims of the ’296 patent (claims 1–15, as set forth in Plaintiff’s preliminary infringement contentions served on November 1, 2024) either alone or in combination with one or more of the prior art references identified in the cover pleading and other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art. To the extent it is found that no reference expressly discloses certain limitations in the Asserted Claims, such limitations are at least implicitly or inherently disclosed.

Home Depot’s invalidity contentions, including this chart, are based in part on H2’s infringement contentions and apparent claim interpretations. In some instances, certain claim limitations are expressly or inherently present in the prior art in light of H2’s apparent claim interpretations in its infringement contentions. Home Depot offers these contentions without prejudice to any position Home Depot may later take as to any claim construction issues. To the extent these contentions reflect claim constructions consistent with H2’s infringement contentions, no implication is intended, nor should any inference be drawn, that Home Depot agrees with any construction implied by H2’s infringement contentions.

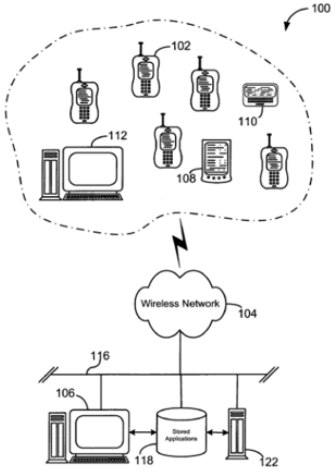
The citations provided are exemplary and do not necessarily include each and every disclosure of a limitation in the charted references. Home Depot has endeavored to cite the most relevant portions of the charted references, but other portions of the charted references may additionally disclose, either expressly or inherently, and/or render obvious, one or more limitations of the asserted claims. Home Depot reserves the right to rely on (1) uncited portions of the charted references, including documents referenced within the charted references; (2) other prior art not identified herein; (3) references that show the state of the art and the knowledge of a person of skill in the art, irrespective of whether such references themselves qualify as prior art to the asserted patents; (4) factual testimony from the inventors or authors of the prior art references, or purveyors of prior art devices; and/or (5) expert testimony, to provide context to or aid in understanding the prior art, the state of the art, and/or the knowledge of a person of ordinary skill in the art. To the extent Home Depot asserts that a claim limitation is indefinite, Home Depot has used its best efforts to interpret the claims to fulfill its duties in charting the prior art references.

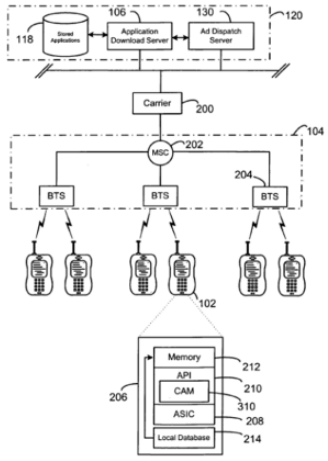
Where Home Depot cites to a particular drawing or figure in the accompanying charts, the citation encompasses the description of the drawing or figure, as well as any text associated with the drawing or figure. Similarly, where Home Depot cites the text concerning a figure, the citation encompasses that figure. This prior art at least inherently discloses certain claim limitations, and Home Depot reserves the right to rely on inherency to demonstrate the invalidity of the asserted claims. Home Depot may rely on cited or uncited portions of the prior art, other documents, factual testimony, and expert testimony to invalidate the asserted claims.

If H2 contends that this reference does not disclose any particular limitation of the asserted claims of this patent, it would have been obvious to a person of ordinary skill in the art to modify this reference and/or to combine the teachings of this reference with other prior art references in a manner that renders such claims invalid.

Discovery is ongoing and Home Depot will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter, subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

This chart is subject to all reservations, objections, and disclaimers in Home Depot's Invalidity Contentions and any amendment, supplement, or modification thereof incorporated herein by reference in their entirety.

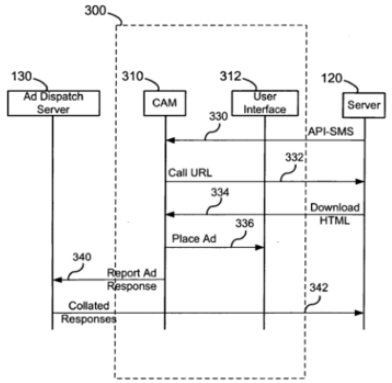
| **'296 Patent Claim Language** | **Exemplary Disclosures** |
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| 1[pre]. A method comprising: | To the extent the preamble is limiting, the following prior art expressly or inherently discloses and renders obvious "[a] method." *See* limitations [1a]–[1k] below.<br><br>"Systems and methods for sending and receiving ads from a server to a client device are disclosed. The ads can be sent based on the location of the client device and/or a designated time window. An ad manager on the client device can display, store and manage the received ads and activated additional applications based on the content of the ad." Chmaytelli '453 at Abstract.<br><br>  <br><br>Fig. 1<br>Chmaytelli '453 at FIG. 1. |

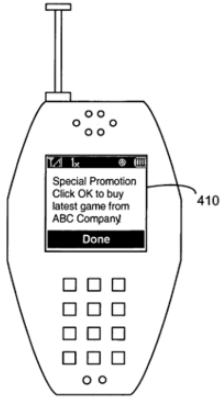
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| |  <br>Fig. 2<br>Chmaytelli ’453 at FIG. 2. |

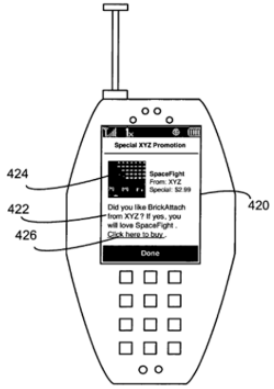


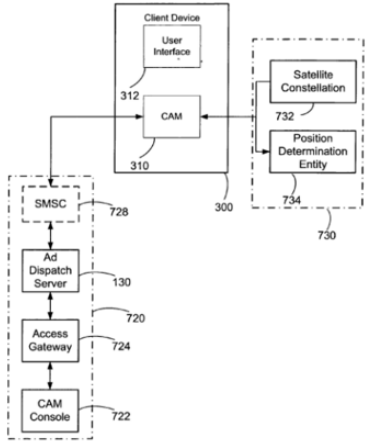


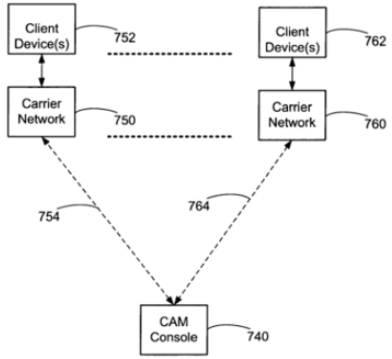
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| |  <br>Fig. 3<br>Chmaytelli ’453 at FIG. 3. |

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| |  <br>Fig. 4A<br>Chmaytelli ’453 at FIG. 4A. |

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| |  <br>Fig. 4B<br>Chmaytelli ’453 at FIG. 4B. |

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| |  <br>Fig. 7A<br>Chmaytelli ’453 at FIG. 7A. |

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| |  <br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications |

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| | that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can |

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| | include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. |

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| | The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042]. |

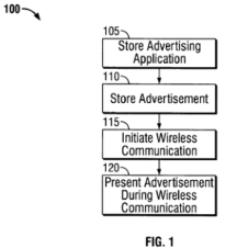
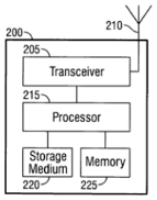
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| | “Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br><br>“FIG. 4A illustrates an example of an ad on a small screen client device. Small screen ads 410 can be primarily text based and contain less information than large screen ads. FIG. 4B illustrates an example of an ad on a large screen device. The large screen ad 420 can contain both text 422 and an image 424, thus increasing the ad's appeal to the end-user. Additionally, the larger ad can also contain other features, such as a link 426 to an online store, further facilitating the ease of use for the end-user. Larger screen devices can allow for much richer ads, optionally containing screenshots for applications or other marketing related graphics. Based on the particular application, the minimum device screen size, for example, can be chosen as the basis for determining the type of message sent. Once again, these various ads can be stored on the ad dispatch server or other server and determined based upon the particular capabilities of each client device. Thus, a sender (e.g., a vendor) would not need to know the specifics of the client devices that the ads are being sent to.” Chmaytelli ’453 at [0061].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., |

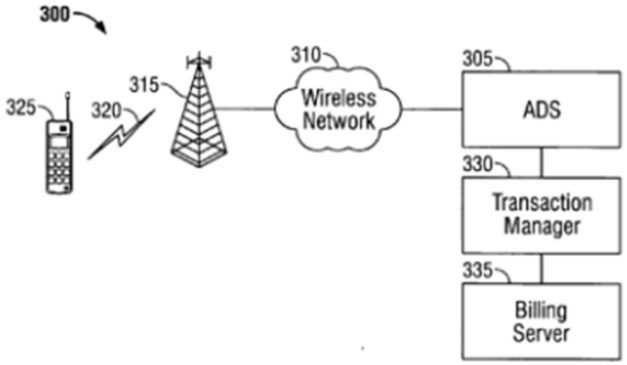
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| | every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>“FIG. 7A is a block diagram of a system that can be used by a sender to deliver the ads, according to at least one embodiment of the invention. A client device 300 can include a user interface 312 (e.g., keypad, buttons, speaker, indicator light, display, and the like) operably coupled to a CAM system 310, as previously discussed. An ad generation system 720 can include a CAM console 722 that allows a sender to access the system 720 and generate the ads including the location-based data (e.g., specific longitude, latitude and radius). The CAM console can be either at the carrier network or at a remote trusted sender (e.g., merchant, developer, government entity and the like). Optionally, an access gateway 724 can be coupled between the CAM console 722 and the ad dispatch server 130. The access gateway 724 can be configured to provide secure communications between the CAM console 722 and the ad dispatch server 130, using encryption and/or other techniques known in the art. Further, the CAM console can be coupled to the access gateway via the Internet, VPN, PSTN, wireless link, and the like.<br><br>Alternatively, if the CAM console 722 is located at the carrier network, the ad generation system 720 can be integrated into one computer-based system which can include the CAM console and ad dispatch server functionality. Further, a Short Message Service Center (SMSC) 728 can be part of the ad generation system 720 and can be used to send directed-SMS messages to the client device 300. However, other OTA data transmitting techniques can be used and SMSC 728 is not required in all embodiments of the invention.” Chmaytelli ’453 at [0075]–[0076].<br><br>“Referring to FIG. 7B, an alternative embodiment of the invention is illustrated in which a remote CAM console 740 is operably coupled to at least one additional ad dispatch server. Further, as illustrated each ad dispatch server (not illustrated) is coupled to or contained within a different carrier networks 750, 760. The configuration of FIG. 7B, allows for one common CAM console to access different carrier networks 750, 760 and ultimately the different client devices 752, 762 in communication with each network. This feature can allow a central CAM console 740 to access multiple client devices (e.g., 752, 762) residing on multiple carrier networks (e.g., 750, 760) which simplifies the dissemination of the ad to multiple carriers and can increase the delivery to the desired client devices. For example, client devices 752 in communication with a first carrier |

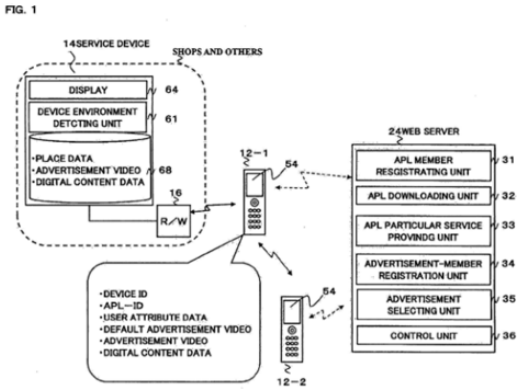
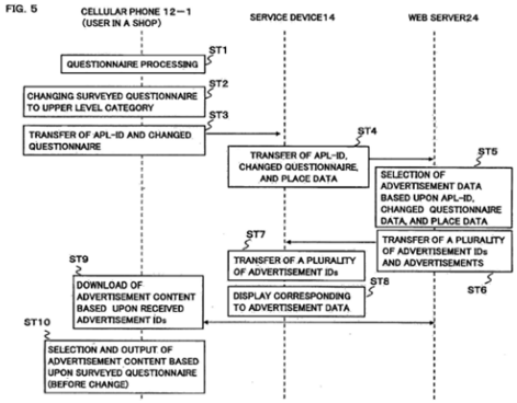
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| | 750 and client devices 762 in communication with a second carrier 760 may be within the targeted geographic area. Accordingly, generating a targeted ad at CAM console 740 and sending it to the first carrier network 750 and the second carrier network 760 can greatly increase the number of client devices that receive the ad. The carrier networks 750, 760 can be connected to CAM console 740 by a secure links 754, 764, to limit the potential for unauthorized access to the ad dispatch servers and client devices. Accordingly, links 754, 764 can be connections via the Internet, virtual private network (VPN), public switched telephone network (PSTN), and/or a wireless link using secure transmission capabilities as is known in the art. Likewise, those skilled in the art will appreciate that more than one CAM console can be connected to a carrier network/ad dispatch server.” Chmaytelli ’453 at [0077].<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location |

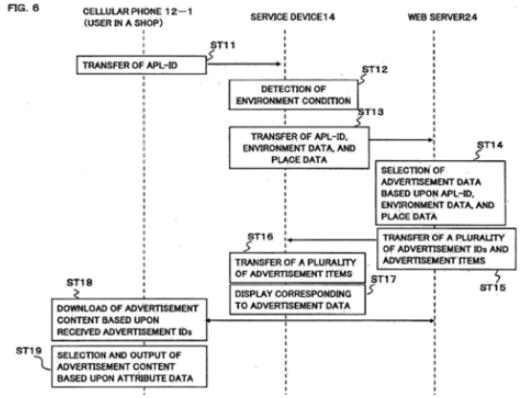
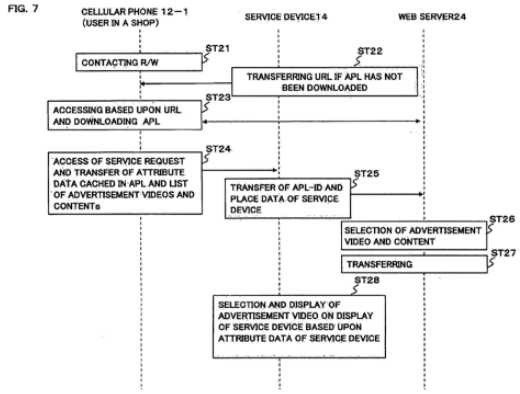
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| | information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads. |

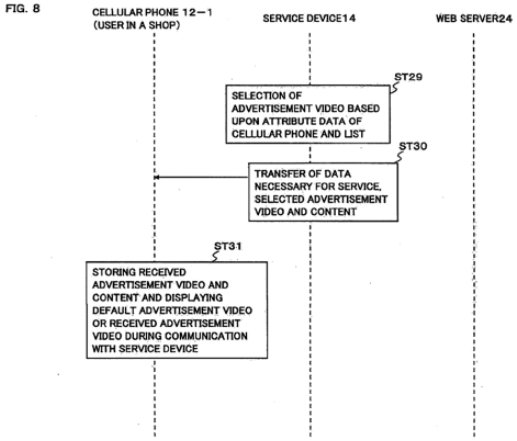
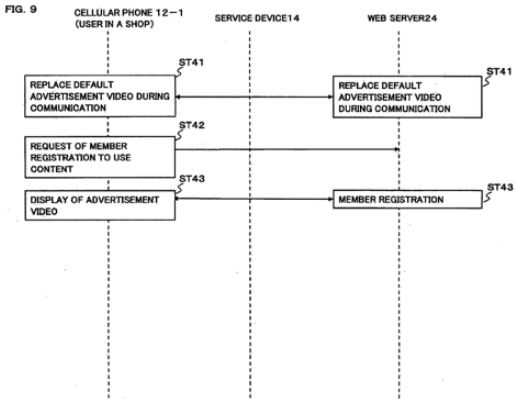
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| | For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted |

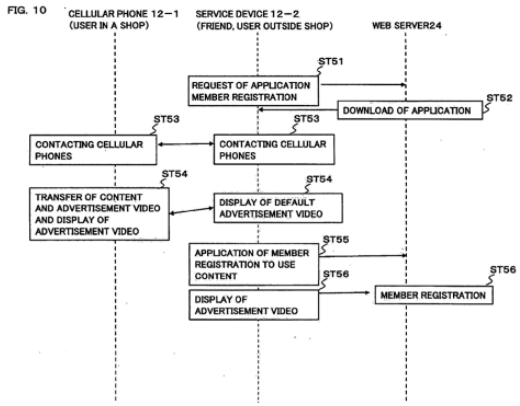
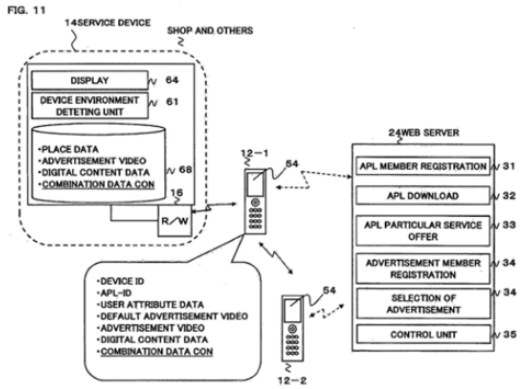
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| | geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br>  <br><br>FIG. 1<br>  <br><br>FIG. 2<br>Macaluso ’238 at FIG. 2. |

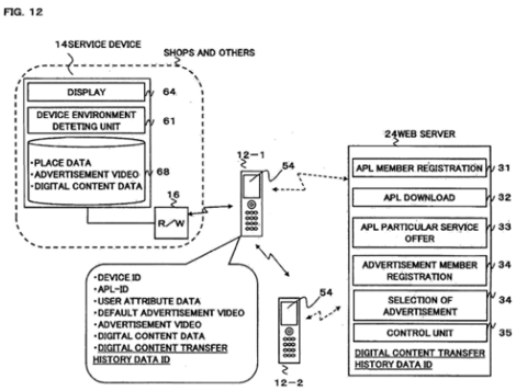
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| |  <br>FIG. 3<br>Macaluso ’238 at FIG. 3.<br>“FIG. 2 is a block diagram of a mobile phone 200 that may be used in connection with the described techniques. The mobile phone 200 includes a transceiver 205 connected to an antenna 210 for communicating voice and data to and from a remote server, wireline telephone connection, and/or another mobile device through a wireless communication system in accordance with conventional techniques. For example, the wireless communication system may be a CDMA, GSM, or UMTS network, or any other type of mobile network. The transceiver 205 is connected to a processor 215 that controls the operation of the mobile phone 200, including the operation of the transceiver 205. A storage medium 220, which may be removable, read-only, or read/write media and may be magnetic-based, optical-based, semiconductor-based media, or a combination of these, may store operating system software for the mobile phone 200. A memory 225 may store additional, less vital information, such as applications that may be loaded into the mobile phone 200, including an application for displaying advertisements on the mobile phone 200. In addition, a cache containing one or more advertisements may be stored in the memory 225. Both the memory 225 and the storage medium 220 are connected to the processor 215. The processor 215 may operate in accordance with software, applications, or other instructions stored in the memory 225 and/or the storage medium 220.” Macaluso ’238 at [0025].<br>“A service providing method, wherein a mobile communication device changes surveyed questionnaire data to upper level category data and transfers the changed data to service processing device and Web server, the service processing device transfers place data around the service processing device to the Web server, the |

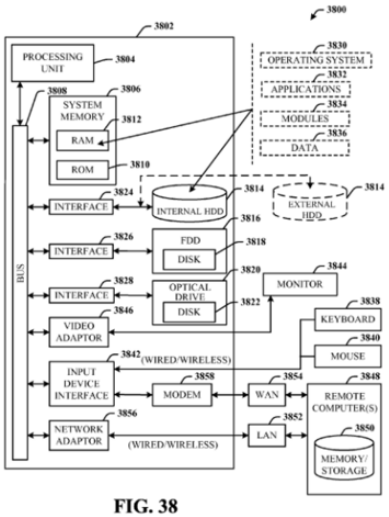
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| | Web server selects advertisement data that matches user's attitudes and the place, based upon the surveyed questionnaire data and the place data, and the service processing device and the mobile communication device displays advertisement images corresponding to the advertisement data received from the Web server on a display.” Kinoshita ’866 at Abstract.<br>  <br><br>Kinoshita ’866 at Fig. 1.<br>  <br><br>Kinoshita ’866 at Fig. 5. |

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| |  <br>Kinoshita ’866 at Fig. 6.<br>  <br>Kinoshita ’866 at Fig. 7. |

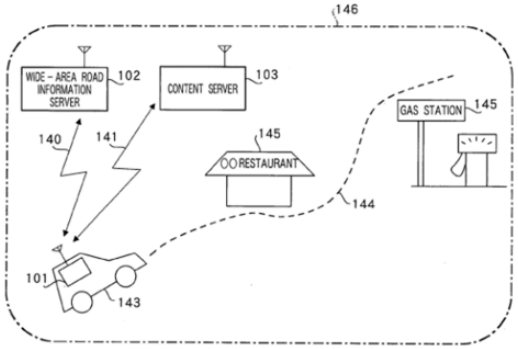
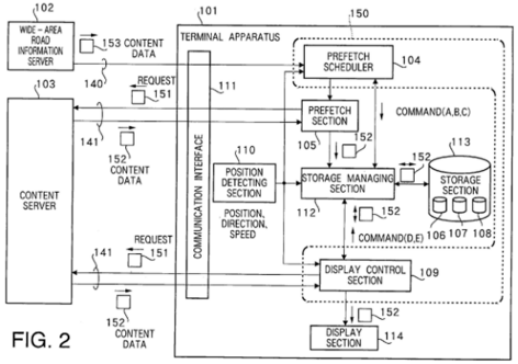
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| |  <br>Kinoshita ’866 at Fig. 8.<br>  <br>Kinoshita ’866 at Fig. 9. |

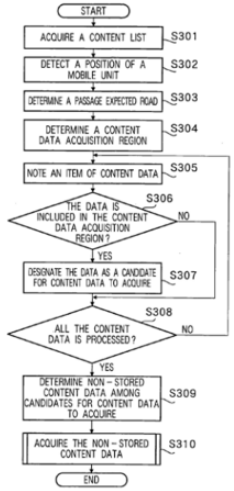
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| |  <br>Kinoshita ’866 at Fig. 10.<br>  <br>Kinoshita ’866 at Fig. 11. |

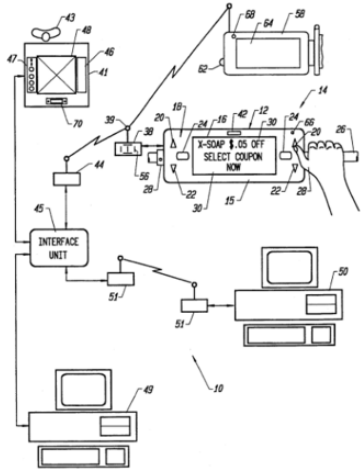
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| | FIG. 12<br>  <br><br>Kinoshita ’866 at Fig. 12.<br>“The present invention relates to a service providing method, a service processing device, and a mobile communication device that are used in a system to provide recommendation data such as advertisement data.” Kinoshita ’866 at [0002].<br>“FIG. 1 is a schematic view of a communication system 1 in accordance with the first embodiment of the present invention.” Kinoshita ’866 at [0025].<br>“This embodiment will explain processes in which advertisement video is displayed on the displays of the cellular phone 12-1 and the service device 14 while they are communicating with each other.” Kinoshita ’866 at [0085].<br>“In the second process, the cellular phone 12-1 communicates with the Web server 24 after completion of the above-mentioned first process. FIG. 9 is a flowchart of a second process of a communication system 1 in accordance with a second embodiment of the present invention.” Kinoshita ’866 at [0113]. |

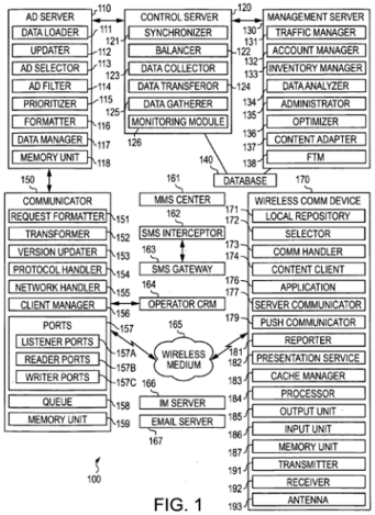
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| |  <br>**FIG. 38**<br>Smith ’558 at Fig. 38.<br>“As used in this application, the terms “component,” “module,” “system,” and the like are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on a server and the server can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.” Smith ’558 at [0058].<br>“Generally, program modules include routines, programs, components, data structures, etc., that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the inventive methods can be practiced with other computer system configurations, including single-processor or multiprocessor computer systems, minicomputers, mainframe computers, as well as personal computers, hand-held computing devices, microprocessor-based or programmable consumer electronics, and the like, each of which can be operatively coupled to one or more associated devices. |

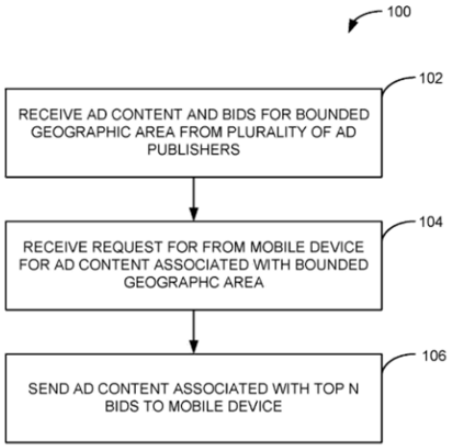
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| | The illustrated aspects may also be practiced in distributed computing environments where certain tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules can be located in both local and remote memory storage devices.<br><br>A computer typically includes a variety of computer-readable media. Computer-readable media can be any available media that can be accessed by the computer and includes both volatile and nonvolatile media, removable and non-removable media. By way of example, and not limitation, computer-readable media can comprise computer storage media and communication media. Computer storage media includes both volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CD-ROM, digital video disk (DVD) or other optical disk storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the computer.<br><br>Communication media typically embodies computer-readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism, and includes any information delivery media. The term “modulated data signal” means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of the any of the above should also be included within the scope of computer-readable media.” Smith ’558 at [0249]–[0252]. |

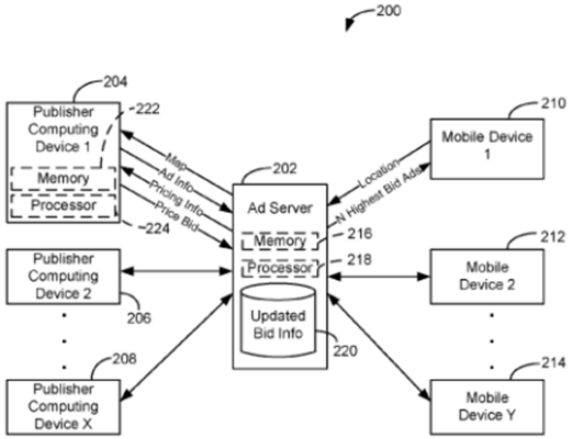
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| |  <br>FIG. 1<br>Sato ’965 at Fig. 1.<br>  <br>FIG. 2<br>Sato ’965 at Fig. 2. |

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| |  <br>FIG. 6<br>Sato ’965 at Fig. 6.<br><br>“Systems and methods are described for managing geographically referenced data (GRD). The systems and methods are configured to receive a search request that includes a defined search area. An extended map is provided based on the search request. The extended map includes geographic areas within the defined search area and outside the defined search area. The systems and methods provide the GRD, which includes advertisements, contact information, review information for one or more entities, and the like. Map reference information of the GRD is provided on the extended map.” Ahn ’281 at Abstract.<br><br>*See also* Begum ’880 at Fig. 1, 1:18–38, 1:57–59, 1:60–2:5, 2:6–12, 2:13–22, 5:65–6:4, 9:12–16, 9:16–29, 9:66–10:15, and 10:16–31. |

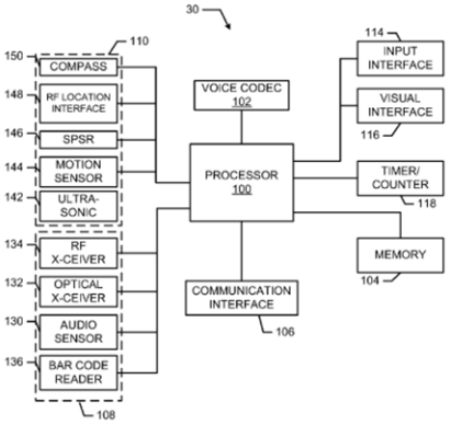
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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“The customer display device 12 is part of a portable communication unit 14 having a control panel 15 with a display screen 16 and easily operated user controls 18, such as complementary up and down scroll buttons 20, 22, and select buttons 24” Begum ’606 at 4:17–21. |

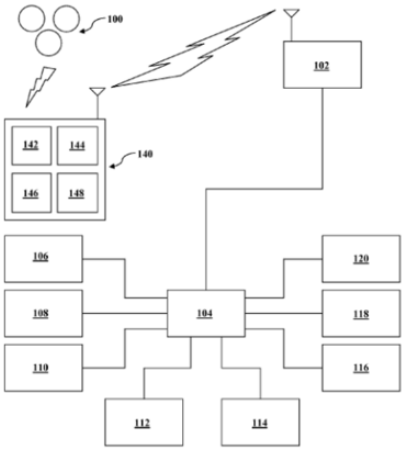
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| |  <br>FIG. 1<br>Levkovitz ’852 at Fig. 1.<br>“FIG. 2 is a schematic flow-chart of a method of wireless content delivery in accordance with an embodiment of the invention. Operations of the method may be implemented, for example, by system 100 of FIG. 1, by ad server 110 of FIG. 1, by communicator 150 of FIG. 1, by device 170 of FIG. 1, by control server 120 of FIG. 1, and/or by other suitable devices and/or systems.” Levkovitz ’852 at [0178].<br>“FIG. 10 is a schematic illustration of a wireless communication device 1070 in accordance with some embodiments of the invention.” Levkovitz ’852 at [0259].<br>“FIG. 11 is a schematic flow-chart of a method of content delivery and presentation in accordance with some embodiments of the invention.” Levkovitz ’852 at [0276].<br>*See also* Levkovitz ’852 at Abstract.<br>“Product or service information in the form of selected wireless e-commerce content is transmitted from a server to a mobile device, such as mobile telephone or personal digital assistant. The e-commerce content is transmitted either in response to an explicit user request for communication of the e-commerce content, or, in the alternative, is “pushed” to the mobile device as permitted by a user but in the absence of a specific |

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| | request. The e-commerce content received at the mobile device is presented to a user by the mobile device in textual or graphical format in conjunction with an indication of a communication needed to consummate an e-commerce transaction. If the user desires to purchase the good or service represented by the e-commerce content, the user initiates the communication indicated by the e-commerce content.” Sanctis ’837 at Abstract.<br><br>“ In view of the foregoing and in accordance with various embodiments of the present invention, selected wireless mobile e-commerce (hereinafter, “m-commerce”) content, such as product or service information, is transmitted from a server to a mobile device, such as a mobile telephone or personal digital assistant (“PDA”). In one embodiment, for example, the m-commerce content is transmitted in response to an explicit user request for communication of the m-commerce content. The user is permitted to view an item on his or her mobile device and prompted to make a purchase (e.g., via a “buy” key or selecting an icon or toolbar on the mobile device). In another embodiment, the m-commerce content is “pushed” to the mobile device in the absence of a specific request. For example, such solicitations may occur multiple times per day, prompt the user to browse various “departments” or categories of goods or services, walk a user through a form for shopping, or combinations thereof.” Sanctis ’837 at [0008].<br><br>  <br>FIG. 1<br>Bussmann ’294 at FIG. 1. |

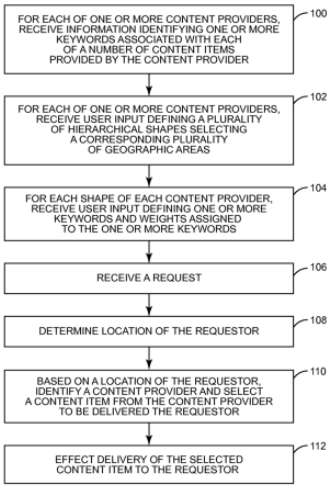
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| |  <br>FIG. 2<br>Bussmann ’294 at FIG. 2.<br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. |

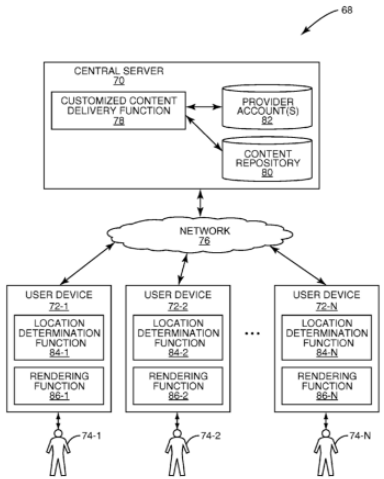
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| | Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“FIG. 2 shows an example embodiment of a location-based advertising use environment 200. Use environment 200 comprises an advertising server 202 in communication with a plurality of advertising publisher computing devices 204, 206, 208, and also with a plurality of devices 210, 212, 214 that request and receive advertising content from the advertising server 202. In the depicted embodiment, the number of advertising publisher client computing devices in communication with the advertising server 202 is illustrated as a generic number X, and the number of requesting/receiving devices is illustrated as a generic number Y, indicating that any suitable number of advertising publisher client computing devices and requesting/receiving devices may be in communication with the advertising server 202 at any time.<br><br>The advertising server 202 comprises memory 216 and a processor 218, wherein the memory 216 comprises instructions stored thereon that are executable by the processor 218 to perform the various methods of operating an advertising server disclosed herein. The advertising server 202 further comprises a database 220 that stores various items of information related to the provision of location-based advertising services. For example, the database 220 may store user account information related to the advertising publishers and/or consumer devices that utilize the system. The database 220 also may store advertising content provided by each advertising publisher, and bid information related to the advertising content. The term “updated bid information” may be used herein to describe such current bid information, as bids may be submitted and/or modified by advertising publishers on a continuous, rolling basis. The updated bid information may include such information as the geographic locations and time intervals selected by each advertising publisher for the distribution of advertising content, category information related to the type of advertising content provided by each advertising publisher and to the specific distribution services requested by the advertising publisher, |

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| | pricing information related to the price paid by each advertising publisher for a desired transaction type (per view, per click-through, etc.), payment information related to the method of payment used by each advertising publisher (pre-paid credits, debit/credit card info, etc.), or any other suitable information.” Bussmann ’294 at [0012]–[0013].<br><br>FIG. 2<br><br>  <br>Mello ’479 at FIG. 2.<br><br>“FIG. 2 is a detailed block diagram of an example implementation of the PPM 30 of FIG. 1. As discussed above, the PPM 30 may be used to monitor the use of a location-based web service application by a monitored person (e.g., the monitored person 32 of FIG. 1). It may also be used to collect location information and/or motion information associated with the use of the location-based web application. In general, the PPM 30 includes electronic components configured to detect and/or collect media monitoring information, location information, and/or motion information, and to communicate the information to the central facility 60 of FIG. 1 for subsequent analyses. As shown in FIG. 2, the PPM 30 includes a processor 100, a voice coder/decoder (CODEC) 102, a memory 104, a communication interface 106, a plurality of media monitoring sensors 108, a plurality of location and motion sensors 110, an input interface 114, a visual |

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| | interface 116 and a timer/counter 118, all of which are communicatively coupled as shown.” Mello ’479 at [0036].<br><br>“It is to be understood that the example machine accessible instructions of the flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be executed by a processor, a controller and/or any other suitable processing device. For example, the example machine accessible instructions of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be embodied in coded instructions stored on a tangible medium such as a flash memory, or random access memory (RAM) associated with a processor. Alternatively, some or all of the example flow diagrams of FIGS. 5A, 5B, 6-9, 10A, 10B, 11A, 11B, and 12-16 may be implemented using an application specific integrated circuit (ASIC), a programmable logic device (PLD), a field programmable logic device (FPLD), discrete logic, hardware, firmware, etc. ” Mello ’479 at [0118].<br><br>  <br><br>FIG. 1<br>Busch ’815 at Fig. 1.<br><br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, |

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| | integration of location data with customer relationship management systems and systems to determining retail business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br><br>“With reference to FIG. 1 GPS satellites 100 operate to determine the location of a mobile device 140 that has a number of features available based upon the location data. The mobile device 140 provides a user interface 142, GPS receiver 144, CPU and memory 146, and radio 148. Examples of mobile device 140 include cellular phones, personal digital assistants, pagers, laptop computers, automobile navigation systems, among others. Mobile device 140 receives GPS signals and determines its location. For purposes of illustration and without limitation, this may occur solely through using the GPS system, or may occur by using a filter to combine location data from the GPS system and another system such as cell-tower-triangulation in order to obtain a more accurate location. The mobile device 140 is wirelessly coupled to an access point 102 with a built in radio 148. The access point 102 is coupled to the Internet 104 or other network. A number of other systems or services are available to the device over the Internet 104 or other network optionally including but not limited to an inventory system 106, advertisement system 108, search engine 110, mapping, business location, GIS, and routing database 112, user information database 114, advertiser information database 116, payment system 118, and phone system 120.” Busch ’815 at [0334].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract. |

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| |  <br>*FIG. 1*<br>Svendsen ’073 at Fig. 1. |

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| |  <br>*FIG. 11*<br>Svendsen ’073 at Fig. 11.<br>“The present invention relates to providing customized content to users based on their location.” Svendsen ’073 at 1:22–23.<br>“FIG. 1 is a flow chart illustrating a process for delivering customized content, or data, based on the location of a requestor according to one embodiment of the present invention.” Svendsen ’073 at 2:61–64.<br>“FIG. 11 illustrates a system 68 for customized content delivery according to one embodiment of the present invention. In general, the system 68 includes a central server 70 and a number of user devices 72-1 through 72-N having associated users 74-1 through 74-N. The central server 70 and the user devices 72-1 through 72-N are enabled to communicate via a network 76. The network 76 may be any type of Wide Area Network (WAN), Local Area Network (LAN), or the like, or any combination thereof. In addition, the network 76 may include wired components, wireless components, or both wired and wireless components. As an example, the network 76 may be the Internet.” Svendsen ’073 at 13:27–38. |

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| | “The system 68 of FIG. 11 may also be used for embodiments where the content providers are one or more media content providers or include both one or more advertisers and one or more media content providers.” Svendsen ’073 at 14:63–67.<br><br>“FIG. 14 is a block diagram of the user device 72-1 of FIG. 11 according to one embodiment of the present invention. This discussion is equally applicable to the other user devices 72-2 through 72-N. In general, the user device 72-1 includes a control system 98 having associated memory 100. In this example, the rendering function 86-1 is implemented in software and stored in the memory 100. However, the present invention is not limited thereto. The rendering function 86-1 may be implemented in software, hardware, or a combination thereof. In this example, the location determination function 84-1 is implemented in hardware. For example, the location determination function 84-1 may be a GPS receiver associated with the control system 98. However, the present invention is not limited thereto. The location determination function 84-1 may be implemented in software, hardware, or a combination thereof. The user device 72-1 also includes a communication interface 102 communicatively coupling the user device 72-1 to the network 76 (FIG. 11). Lastly, the user device 72-1 includes a user interface 104, which may include components such as, for example, a display, one or more user input devices, or the like.” Svendsen ’073 at 15:47–67.<br><br>“Last week, Steve Jobs announced that 60 million iPhone apps had been downloaded, averaging 2 million per day. While there are questions of whether these stratospheric download numbers translate to equally impressive usage numbers, some wondered how those apps will monetize (particularly the very popular free ones). The overwhelming case for most online applications, whether those featured on Facebook, or those syndicated through widgets throughout the blogosphere, is through ads. So how exactly do ads on iPhone apps work?” Menayan 2008 at 1.<br><br>“There are already several ad network/platforms available for iPhone apps. Here’s the current list of offerings:<br><br>• Crisp Wireless - currently creates banners + microsites; used by the New York Times and Washington Post apps<br><br>• PurpleTalk - allows creation of customizable text banners; features ad exchange “Partner Network”<br><br>• AppLoop - claims to be the first real-time, location-based mobile advertising network<br><br>• Pinch Media - widely-used ad network on dozens of iPhone apps<br><br>• Medialets - offers CPM, CPC and CPA advertising run natively through iPhone apps |

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| | • AdMob -offers rich-media (video-, map- and Apple App Store-integrated) banner ads on iPhone apps; also has an impressive list of signed clients” Menayan 2008 at 1.<br>“Here’s an example of Crisp Wireless’s ad for Westin Hotels on the New York Times app:<br>[Image]<br>The banner shows up towards the bottom of the front page of the app, and 1s, at least in this case, visually contrastive.” Menayan 2008 at 1–2.<br>  <br>Menayan 2008 at 2.<br>“About AppLoop<br>AppLoop is an advertising and analytics solution for mobile iPhone applications. Founded by two regular guys in the Silicon Valley, AppLoop provides a rich, analytics-based service for advertisers and developers looking to engage with mobile platforms.<br>AppLoop was founded in June of 2008 by Eric Kerr and Jacob Eiting with one simple goal in mind: Make advertising not suck. |

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| | Our blog is a great way to keep updated on AppLoop as we continually grow and add new features.” AppLoop.com: About at 1.<br>“• Precisely Target your ads based on location and context.<br>• Advanced Statistics report the performance of all your advertising campaigns.<br>• Engage dedicated, valuable, and near-by users from the palm of their hand.<br>Get Started<br>• Bring your advertising strategy to the next level with location-based mobile advertising, Why spend money advertising to people sitting on their couch or at a computer desk? Mobile application users are active and ready to spend money.” AppLoop.com: Advertisers at 1.<br>“AppLoop. On a phone near you.<br>Posted by eric on Tuesday, July 15, 2008 at 5:39 AM<br>It is with great pleasure that I announce our public launch on the iPhone. We have been hard at work since our announcement on TechCrunch. Today, we’re ready for business:Advertise in iPhone applications today.” AppLoop.com: Blog at 2.<br>“Application Developers<br>AppLoop Analytics<br>The analytics service allows you to to track precisely where, when, and how your applications are being used. Track your earnings, growth, and engagement over time.” AppLoop.com: Developers at 1.<br>“For Advertisers<br>• Precisely Target your ads based on location and context to reach the most relevant users, and maximize click through rates.<br>• Advanced Statistics report the performance of your advertising campaigns, keeping you informed.<br>• Engage dedicated, valuable, near-by customers most relevant to your business.” AppLoop.com: Home at 1. |

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| [1a] registering a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type; | The following prior art expressly or inherently discloses and renders obvious “registering a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type.” For example:<br><br>“For example, there currently exist a variety of portable personal computing devices, including wireless computing devices, such as portable wireless telephones, personal digital assistants (PDAs) and paging devices that are each small, lightweight, and can be easily carried by users.” Chmaytelli ’453 at [0004].<br><br>“Further, many such cellular telephones are being manufactured with relatively large increases in computing capabilities, and as such, are becoming tantamount to small personal computers and hand-held PDAs.” Chmaytelli ’453 at [0004].<br><br>“Some of the personal computing devices utilize application programming interfaces (APIs), sometimes referred to as runtime environments and software platforms, that are installed onto their local computer platform and which are used, for example, to simplify operations of such devices, such as by providing generalized calls for device specific resources. Further, some such APIs are also known to provide software developers the ability to create software applications that are fully executable on such devices. In addition, some of such APIs are known to be operationally located between the computing device system software and the software applications such that the computing device computing functionality is made available to the software applications without requiring the software developer to have the specific computing device system source code. Further, some APIs are known to provide mechanisms for secure communications between such personal devices (i.e., clients) and remote devices (i.e., servers) using secure cryptographic information.” Chmaytelli ’453 at [0005].<br><br>“At least one such currently available end-to-end software distribution platform includes logic distributed over a server-client architecture, where the server performs, for example, billing, security and application distribution functionality, and the client performs, for example, application execution, security and user interface functionality.” Chmaytelli ’453 at [0006].<br><br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The |

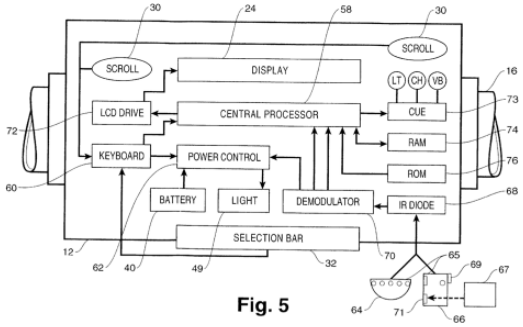
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| | embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br><br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as |

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| | cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless |

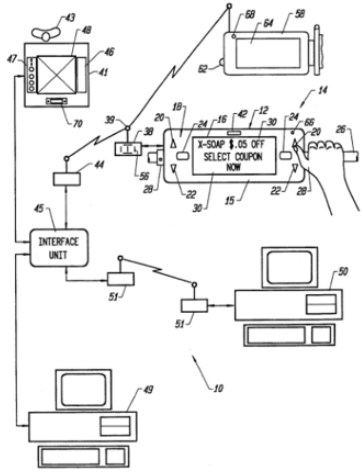
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| | computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“Additionally, the CAM system can be optionally downloaded to the client device as part of a purchased bundle. Also, the end-user can voluntarily download the CAM system. This can be accomplished by sending an OTA messsage(e.g., SMS) to the client device containing the URL of the download location. Further flyers or direct mailings can be used to distribute downloading information. Once the CAM is installed, the device can receive and present ads and marketing information to the end-user as described in the foregoing.” Chmaytelli ’453 at [0059].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in |

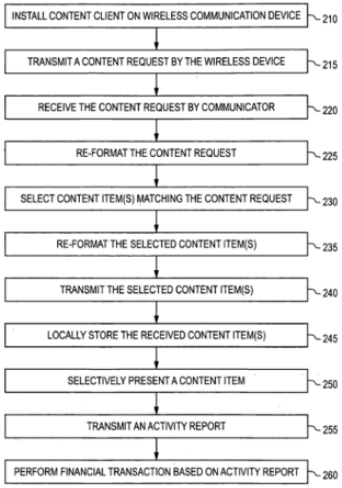
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| | the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>“Implementations may include one or more of the following features. For example, the advertisement may be downloaded to the mobile device over a wireless interface. The wireless communication may include a download of data to the mobile device. The download of data may involve data used by an application running on the mobile device. ” Macaluso ’238 at [0006].<br><br>“Applications stored on the mobile phone 200, such as the advertising application, may be written in Java code, C/C++ code, in accordance with a Binary Runtime Environment for Wireless (BREW) Software Development Kit (SDK), or some other appropriate format. The storage medium 220 in the mobile phone 200 may include a Java virtual machine. Alternatively or in addition, the storage medium 220 may include BREW client software. The BREW platform, which was developed by Qualcomm and is described in greater detail at “www.qualcomm.com/brew,” enables Java and BREW applications to be easily downloaded onto and executed on the mobile phone 200. As another alternative, the storage medium 220 may include software for implementing Motorola's iDEN technology. In general, a Java virtual machine maybe run on top of the BREW client or iDEN technology to support Java applications/applets, and other types of extensions may be run on top of the BREW client to support other types of applications. Applications, such as the advertising application mentioned above, may therefore be easily loaded onto the mobile phone 200.” Macaluso ’238 at [0026].<br><br>“A user can download content data from the R/W device 16.” Kinoshita ’866 at [0029].<br><br>“Referring to FIG. 2, the cellular phones 12-1 and 12-2 include, for example, a communication unit 52, a display 54, an operation unit 56, memory 58, and a processing circuit 59. The cellular phones 12-1 and 12-2 used in the present embodiment are operated by the processing circuit 59 that executes programs stored in the |

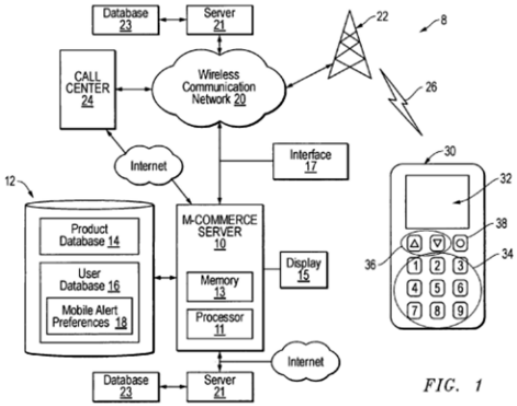
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| | memory 58. At this time, data used in the execution is read out from or written to the memory 58.” Kinoshita ’866 at [0031].<br><br>“As shown in FIG. 1, the Web server 24 includes, for example, an APL member registration unit 31, an APL downloading unit 32, an APL particular service providing unit 33, an advertisement-member registration unit 34, an advertisement selecting unit 35, and a control unit 36. The APL member registration unit 31 performs member registration before an application program APL is downloaded, which will be described later. The APL downloading unit 32 downloads the above-mentioned application program APL.” Kinoshita ’866 at [0041].<br><br>“The advertisement-member registration unit 34 registers members that use digital content data.” Kinoshita ’866 at [0042].<br><br>“The service device 14 determines whether the cellular phone 12-1 has downloaded a predetermined application program APL through the R/W device 16. If the application program APL has not been downloaded, URL for downloading the application program APL is transferred to the cellular phone 12-1. An application program APL is, for example, provided to each service of the service device 14.” Kinoshita ’866 at [0091].<br><br>“The cellular phone 12-1 accesses the Web server 24 by using the URL received in the step ST12 and downloads an application program APL. The cellular phone 12-1 transfers the application program APL to the memory 58 of FIG. 2. The application program APL includes a default advertisement video. In the present embodiment, the default advertisement video has no digital content data. In the present embodiment, the number of videos included in the cellular phones 12-1 and 12-2 is not limited.” Kinoshita ’866 at [0093].<br><br>“The cellular phone 12-1 transfers a member registration request to the Web server 24 in order to use digital content data associated with an advertisement video.” Kinoshita ’866 at [0117].<br><br>“The Web server 24 performs the member registration of the user or his cellular phone 12-1 according to the member registration request sent from the cellular phone 12-1.” Kinoshita ’866 at [0119].<br><br>“In this registration process, the cellular phone 12-1 transfers data such as age, gender, preference, and local information to the Web server 24 to register them.” Kinoshita ’866 at [0119].<br><br>“A user's friend, who is not in a shop, sends a member registration request to the web server 24 by using his cellular phone 12-2 in order to use an application program APL. If the cellular phone 12-2 has already downloaded the application program APL, the present process is not necessary.” Kinoshita ’866 at [0123]. |

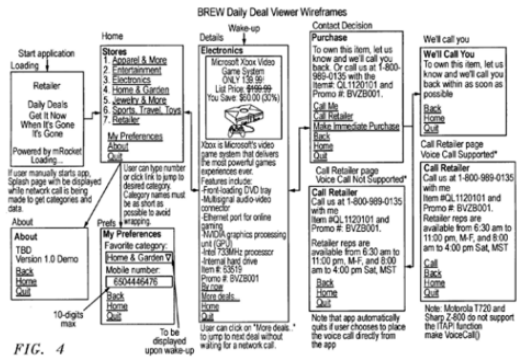
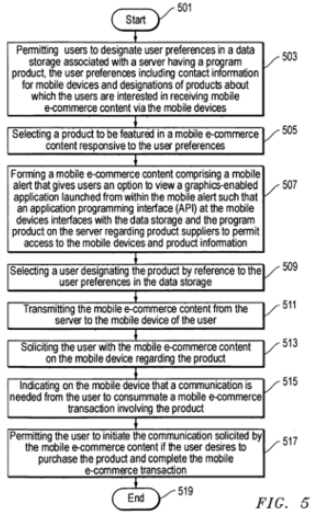
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| | “The Web server 24 performs member registration according to the above member registration request and uploads the application program APL to the cellular phone 12-2. The cellular phone 12-2 transfers the application program APL to the memory 58 of the FIG. 2.” Kinoshita ’866 at [0125].<br><br>“A user of the cellular phone 12-2 transfers a member registration request to the Web server 24 in order to use the digital video data received in the step ST 25.” Kinoshita ’866 at [0131].<br><br>“The Web server 24 performs member registration of the cellular phone 12-2 or its user according to the request from the cellular phone 12-2.” Kinoshita ’866 at [0133].<br><br>*See also* Kinoshita ’866 at Fig. 1, Fig. 2, Fig. 5, Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, Fig. 11, Fig. 12, [0011], and [0028].<br><br>“In a further embodiment, system 100 can facilitate real-time advertising and/or on-line advertising to one or more users based on various criteria including a user location, user preference, user request, advertiser location, advertiser rank, advertiser rating, etc.” Smith ’558 at [0073].<br><br>  <br><br>Fig. 5<br><br>Begum ’880 at Fig. 5.<br><br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22. |

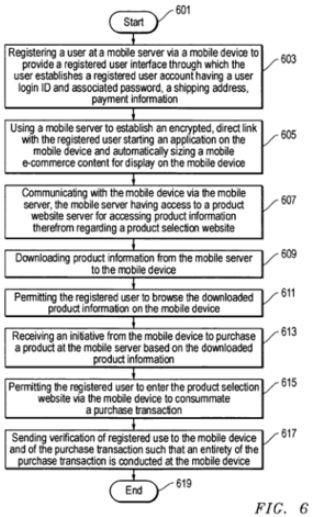
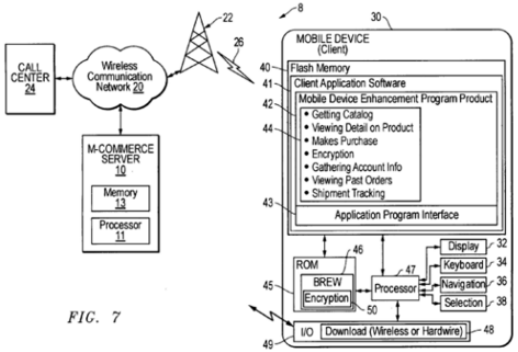
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| | “The user interface is designed to allow the user to access all of the available data including stored promotional graphics by a control system that is intuitive. Furthermore, the hybrid system devised for automatic display of promotional graphics, is designed to incorporate features that are beneficial in facilitating automatic update of the promotional advertisements.” Begum ’880 at 4:65–5:4.<br><br>“In the simplest embodiment of the invention, the display screen automatically displays periodic promotional items and the user controlled feature is limited to a categorical product directory. The scroll buttons allow a user to scroll up or down the product category list to find the location of selected items in the product directory.” Begum ’880 at 5:65–6:4.<br><br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>*See also* Begum ’880 at 1:60–2:5, 9:12–16, and 9:16–29. |

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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“In the preferred embodiment, the communication units are primarily portable and communicate with the coupon interface modules via wireless data transmissions. Furthermore, the discount coupons are preferably activated when the shopper is in the market area proximate the location of the discounted items. In this situation, a local message sending unit proximate the location of the item activates the display of the coupon graphic on the display screen of the communication unit carried by the shopper or mounted on the shopper's cart. ” Begum ’606 at 3:4–14.<br>“As electronic coupon interface module 98 also shown in enlarged detail in FIG. 3 provides the chip set and specialty application programming necessary to adapt to the bar code scanner and checkout terminal at the checkout counter, and communicates with the store computer and systems controller. The central processor 71 utilizes a static 256K RAM 100 for random access memory 106 and a 64K EPROM for read only memory 102 under operation of an application program 105.” Begum ’606 at 8:24–33. |

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| |  <br>FIG. 2<br>Levkovitz ’852 at Fig. 2.<br>“In some embodiments, previously-prepared applications, e.g., utilities or games for mobile phones, may be configured or adapted to include or embed a content client, e.g., using a Software Development Kit (SDK) or a Close Class.” Levkovitz ’852 at [0006].<br>“ In some embodiments, for example, the wireless communication device may include a content client running on the wireless communication device to present the one or more user-selectable operation; and/or a content client to present the one or more user-selectable operations in a context of an application running on the wireless communication device” Levkovitz ’852 at [0064].<br>“ In some embodiments, for example, a wireless communication device may include a wireless communication device to receive an advertisement selected in response to an application-initiated content request, to present the advertisement in a context of an application running on the wireless communication device, and to present one or more user-selectable operations selectively associated with the advertisement. The application may be, for example, a gaming application, a utility application, or the like.” Levkovitz ’852 at [0069]. |

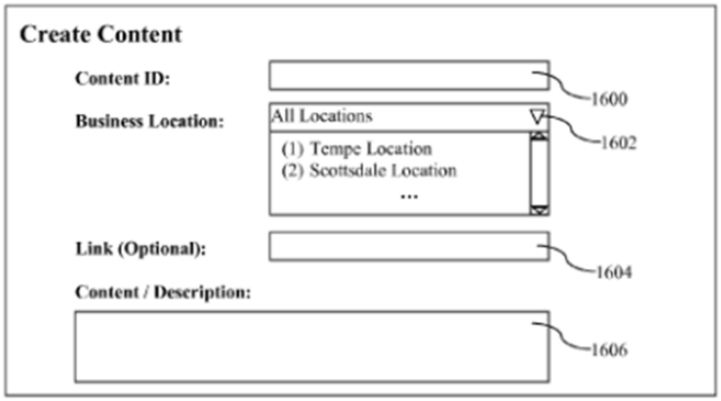
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| | “In accordance with some embodiments of the invention, device 170 may include an application 176 having a content client 174. The application 176 may be; for example, a game or a software application.” Levkovitz ’852 at [0095].<br><br>“Management server 130 may include one or more modules or components, for example, a traffic manager 131, an account manager 132, an inventory manager 133, a data analyzer 134, an administrator module 135, an optimizer 136, content adapter 137, and a Financial Transactions Module (FTM) 138.” Levkovitz ’852 at [0106].<br><br>“As indicated at box 210, the method may optionally include, for example, installing content client 174 on device 170, e.g., as a stand-alone module or as an embedded part, plug-in or component of application 176. The installing operation may optionally include, for example, downloading the content client 174 from an online source.” Levkovitz ’852 at [0179].<br><br>*See also* Levkovitz ’852 at Fig. 1, [0099], [0147], [0148], and [0155].<br><br>  <br><br>*FIG. 1*<br><br>Sanctis ’837 at Fig. 1. |

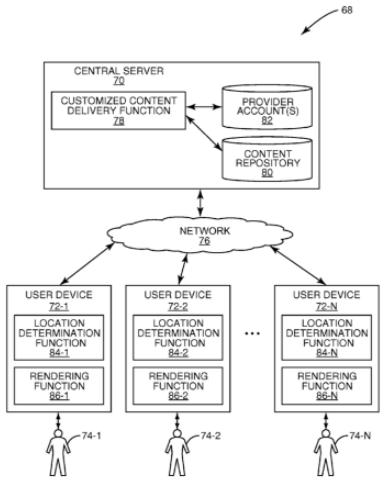
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| |  <br>FIG. 4<br>Sanctis ’837 at Fig. 4.<br>  <br>FIG. 5<br>Sanctis ’837 at Fig. 5. |

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| |  <br>*FIG. 6*<br>Sanctis ’837 at Fig. 6.<br>  <br>*FIG. 7*<br>Sanctis ’837 at Fig. 7.<br>“The mobile alert preferences 18 include at least contact information for at least one registered mobile device (e.g., a telephone number or email address of the mobile device) and can further include a designation of at |

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| | least one individual or group of products or services about which the user is interested in receiving alerts via the registered mobile device. The m-commerce server 10 accordingly preferably provides a subscriber interface through which the user can utilize a mobile device 30 and/or a conventional computer to designate a product or service of interest to that user. The designation can specify a range or group of products or services (e.g., automobiles, golf clubs, or discounted items) or can identify a specific product or service, for example, by catalog number, SKU, model number, or simply by description. The m-commerce server 10 can also store one or more designations individually for each user or can store such designations for groups of users.” Sanctis ’837 at [0028].<br><br>“Optionally, the account information stored within the user database 16 for each user can additionally include, for example, a user's login ID and associated password, physical mailing address, e-mail address, and payment information (e.g., bank account or credit card information). In addition, the account information can describe the hardware, software, and/or program products within the user's registered mobile device and a commerce history indicating what products and services have been advertised to the user via the registered mobile device and the user's previous m-commerce purchases.” Sanctis ’837 at [0029].<br><br>“Also, as shown in FIG. 7, and as will be understood by those skilled in the art, the mobile devices 30 can download client application software 41 to be stored in memory, e.g., flash memory 40, of the mobile device 30 and can include mobile device enhancement program product 42 or software and application program interface program product or software from an input/output having download 48, e.g., wireless or hardwire, capabilities associated with the mobile device 30 via a communication link 26 with another computer or the server 10, or be provided with client application program product or software upon purchase of the mobile device, to enhance client communication capabilities to the m-server 10, to enhance GUI displays to the user, and to enhance other features 44 for the user as a set of program instruction as understood by those skilled in the art and as described herein, such as mobile alerts, make purchase consummation, gathering account information, viewing detail on product, viewing past orders, shipment tracking, and security encryption.” Sanctis ’837 at [0038].<br><br>“Because this embodiment of the invention only transmits mobile alerts to users that have subscribed to the mobile alert service and have indicated a preference for receiving information about the featured product(s), user response to receipt of the mobile alert is likely to be favorable.” Sanctis ’837 at [0039].<br><br>“Application programming interfaces (APIs) to existing relational database and mass email sender of product or service suppliers can allow the Mobile Alert system to get subscriber email addresses and product information. Features Consumer Features” Sanctis ’837 at [0058]. |

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| | “After subscribing for mobile alerts, members can be sent the next regularly scheduled alert(s). Subscription cancellations can be processed as quickly as possible. Members, however, can receive that day's alert, depending on the time of the cancellation relative to the when the mailing list is collected.” Sanctis ’837 at [0061].<br><br>“The method yet further can include utilizing the server 10 to provide a user interface through which the user can utilize the mobile device 30 to establish a user account having a user login ID and associated password, a shipping address, and payment information, and storing commerce history of the user indicating what products have been solicited to and purchased by the user via the mobile device 30.” Sanctis ’837 at [0116].<br><br>“FIG. 6 illustrates another embodiment of a method of facilitating wireless mobile e-commerce. The method, for example, starts as indicated at step 601, and includes registering a user (step 603) at a mobile server 10 via a mobile device 30 to provide a registered user interface through which the user establishes a registered user account having a user login ID and associated password, a shipping address, payment information. As illustrated at step 605, a mobile server 10 is used to establish an encrypted, direct link with the registered user starting an application on the mobile device 30 and automatically sizing a mobile e-commerce content for display on the mobile device 30.” Sanctis ’837 at [0117].<br><br>“Step 605 may include utilizing an application programming interface at the mobile device 30 and encrypting the mobile e-commerce content, while step 609 can include browsing images, data, and pricing for products.” Sanctis ’837 at [0118].<br><br>“The wireless carrier can further incentivize its customers to subscribe to the Mobile Alert service by offering discounted communication services for subscribers to the Mobile Alert service.” Sanctis ’837 at [0120].<br><br>*See also* Sanctis ’837 at [0032] and [0036]. |

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| |  <br>FIG. 16A<br>Busch ’815 at Fig. 16A.<br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br>“For purposes of illustration and without limitation, if the mobile device is interfaced with Starbucks'® payment system or if the mobile device recently visited the Starbucks® website (or a computer operated by the user under an account associated with the mobile device) and subsequently it appears that the mobile device's location may correspond to Starbucks® or one of several stores adjacent to the particular Starbucks® location, it may be determined that the user is currently visiting the Starbucks® near their reported location. Alternatively, the system may provide increased weighting to Starbucks® when determining the location of the mobile device.” Busch ’815 at [0348]. |

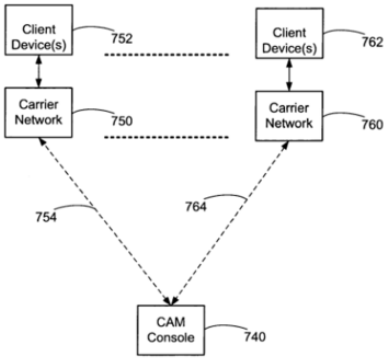
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| |  <br>*FIG. 11*<br>Svendsen ’073 at Fig. 11.<br>“In another exemplary embodiment, the user device 72-1 may be a set-top box, and the request may be an automatic request by the user device 72-1 for advertisements to late-bind to video content being viewed or requested by the user 74-1. The customized content delivery function 78 may then select one or more advertisements and deliver or cause delivery of the advertisements to the user device 72-1. The rendering function 86-1 may then perform a late-binding process to insert the advertisements into the video content presented to the user 74-1. In this example, the advertisements may be commercials such as those included in traditional television programming. Note that these two exemplary embodiments are illustrative and not intended to limit the scope of the present invention. ” Svendsen ’073 at 14:44–57.<br>*See also* Svendsen ’073 at Fig. 14, 3:64–4:23, 14:10–17, 14:35–39, and 15:47–67.<br>“The Xtify API provides a simple interface for a web content provider to access a user's location. This API uses a REST interface and XML as the message format. The method for querying a user's location requires the content provider to include two parameters, one identifying the application and the other identifying the particular user associated with the location query.” Xtify - API Overview at 1. |

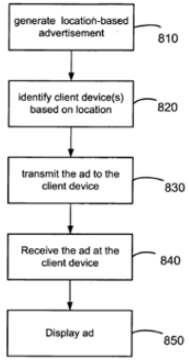
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| | “The API allows a web application to query Xtify for a particular user's location. Therefore, there are two preparatory steps to use the API: register an application and add users to that application.” Xtify - API Overview at 1.<br><br>“Profiles and App Registration<br><br>The very first step is to provide an email address and create an Xtify account. Doing so activates the fifth link of the top navigation bar: My Profile. This page is the central repository of all your information: any detail you provide about yourself and a list of your registered applications. You can add, delete, edit, or just track any of those applications from within your profile.<br><br>Of course, the application listing will be empty at the start. So the next step is to register your first web app. We ask for a handful of identifying items of information: the application's name, its URL, the IP range from which all queries will be made, and any description you want to add. Here the fields we require and the reasons for each.<br><br>As soon as the registration goes through, the application appears in your profile listing with all its info and one more line: the Application Key. This is a string of alphanumeric characters that uniquely identifies your application and is crucial in using the API — our next topic.” Xtify - Xtify Overview at 1.<br><br>“Xtify is a REST web service, so you can access its functionality with a single URL query. You provide just two identifiers: the Application Key we provided and an ID for the user whose location you need. And in keeping with the goal of simplicity, you get to define every user ID. If your site already maintains unique login names, there is no reason to add another layer of data; just use those.” Xtify - Xtify Overview at 1.<br><br>“With all their troubles, mobile software has at least one advantage over its web-based brethren: desktop presence. That is, a mobile program has an icon right on each phone's screen, giving it a visual presence far stronger than any web application that depends on a browser. When you register your application for Xtify, though, you can also upload an icon of your own. When your users download the Xtify client (that tracks location), they also receive your icon on their phone's desktop as a mobile bookmark to your web application. The result is that the download appears branded as your application, not ours. We give you the Xtify software, and you get to wrap it as your own.” Xtify - Why Xtify at 1.<br><br>“Step 2: Register Your Application<br><br>Once you register your application, you will be given a unique key that you will use to query the Xtify Location API.” Xtify - QuickStart at 1. |

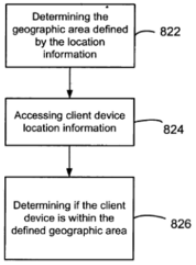
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| | “Step 3: Provide a link for users to download the Xtify client.<br><br>You will place a special download link on your website that includes your Application ID and a UNIQUE identifier you provide for each user download. Be sure not to use the same user key for every download as this will disable all previous users with that key.” Xtify - QuickStart at 1.<br><br>“Last week, Steve Jobs announced that 60 million iPhone apps had been downloaded, averaging 2 million per day. While there are questions of whether these stratospheric download numbers translate to equally impressive usage numbers, some wondered how those apps will monetize (particularly the very popular free ones). The overwhelming case for most online applications, whether those featured on Facebook, or those syndicated through widgets throughout the blogosphere, is through ads. So how exactly do ads on iPhone apps work?” Menayan 2008 at 1.<br><br>“There are already several ad network/platforms available for iPhone apps. Here’s the current list of offerings:<br><br>• Crisp Wireless - currently creates banners + microsites; used by the New York Times and Washington Post apps<br><br>• PurpleTalk - allows creation of customizable text banners; features ad exchange “Partner Network”<br><br>• AppLoop - claims to be the first real-time, location-based mobile advertising network<br><br>• Pinch Media - widely-used ad network on dozens of iPhone apps<br><br>• Medialets - offers CPM, CPC and CPA advertising run natively through iPhone apps<br><br>• AdMob -offers rich-media (video-, map- and Apple App Store-integrated) banner ads on iPhone apps; also has an impressive list of signed clients” Menayan 2008 at 1.<br><br>“Here’s an example of Crisp Wireless’s ad for Westin Hotels on the New York Times app:<br><br>[Image]<br><br>The banner shows up towards the bottom of the front page of the app, and 1s, at least in this case, visually contrastive.” Menayan 2008 at 1–2. |

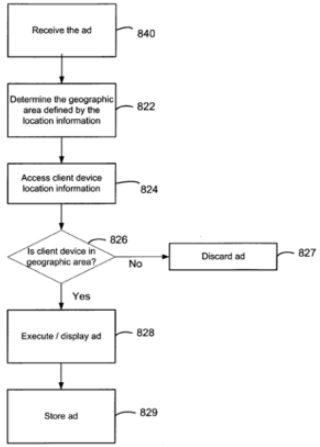
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| |  <br>Menayan 2008 at 2.<br>“About AppLoop<br>AppLoop is an advertising and analytics solution for mobile iPhone applications. Founded by two regular guys in the Silicon Valley, AppLoop provides a rich, analytics-based service for advertisers and developers looking to engage with mobile platforms.<br>AppLoop was founded in June of 2008 by Eric Kerr and Jacob Eiting with one simple goal in mind: Make advertising not suck.<br>Our blog is a great way to keep updated on AppLoop as we continually grow and add new features.” AppLoop.com: About at 1.<br>“• Precisely Target your ads based on location and context.<br>• Advanced Statistics report the performance of all your advertising campaigns.<br>• Engage dedicated, valuable, and near-by users from the palm of their hand.<br>Get Started |

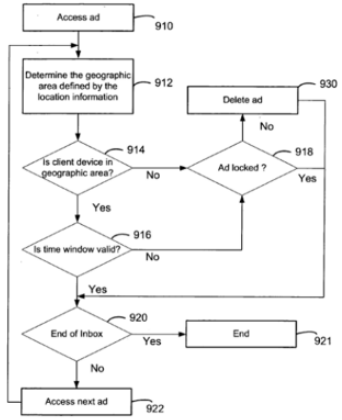
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| | • Bring your advertising strategy to the next level with location-based mobile advertising, Why spend money advertising to people sitting on their couch or at a computer desk? Mobile application users are active and ready to spend money.” AppLoop.com: Advertisers at 1.<br><br>“AppLoop. On a phone near you.<br><br>Posted by eric on Tuesday, July 15, 2008 at 5:39 AM<br><br>It is with great pleasure that I announce our public launch on the iPhone. We have been hard at work since our announcement on TechCrunch. Today, we’re ready for business:Advertise in iPhone applications today.” AppLoop.com: Blog at 2.<br><br>“Application Developers<br><br>AppLoop Analytics<br><br>The analytics service allows you to to track precisely where, when, and how your applications are being used. Track your earnings, growth, and engagement over time.” AppLoop.com: Developers at 1.<br><br>“For Advertisers<br><br>• Precisely Target your ads based on location and context to reach the most relevant users, and maximize click through rates.<br><br>• Advanced Statistics report the performance of your advertising campaigns, keeping you informed.<br><br>• Engage dedicated, valuable, near-by customers most relevant to your business.” AppLoop.com: Home at 1.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |

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| [1b] establishing a plurality of perimeters defining a plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “establishing a plurality of perimeters defining a plurality of geographic areas.” For example:<br>  <br><br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B. |

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| |  <br>Fig. 8A<br>Chmaytelli ’453 at FIG. 8A. |

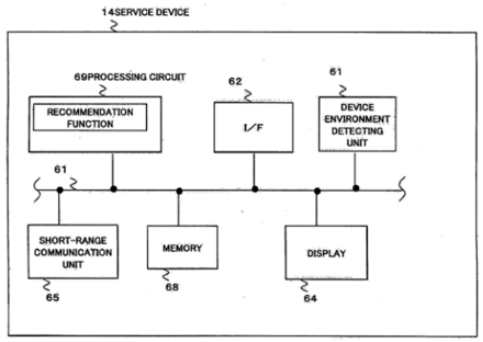
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| |  <br>Fig. 8B<br>Chmaytelli ’453 at FIG. 8B. |

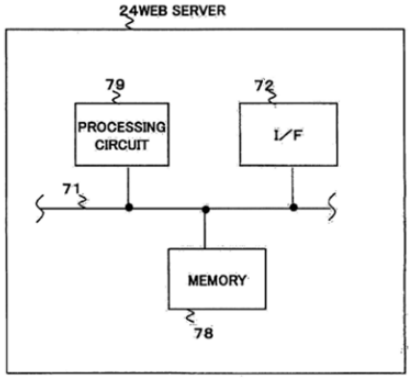
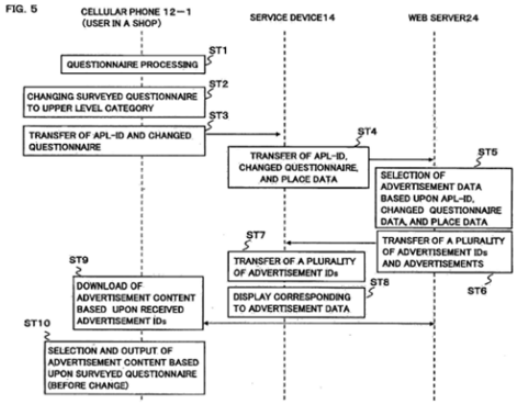
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| |  <br>Fig. 8C<br>Chmaytelli ’453 at FIG. 8C. |

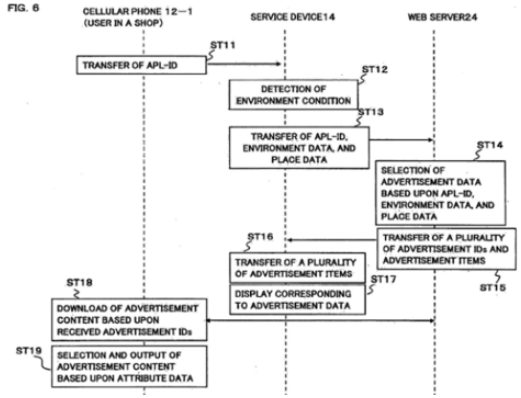
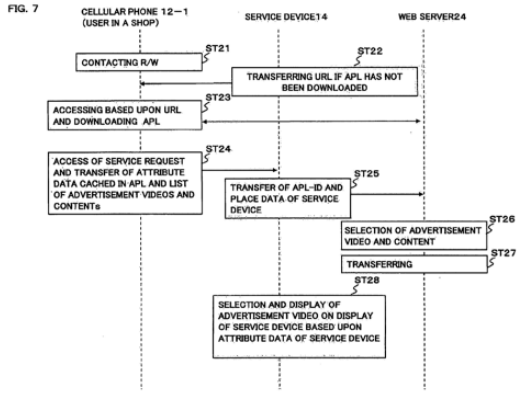
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| |  <br>Fig. 9<br>Chmaytelli ’453 at FIG. 9.<br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated |

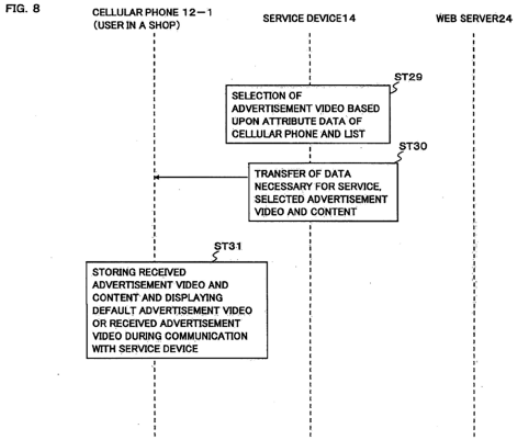
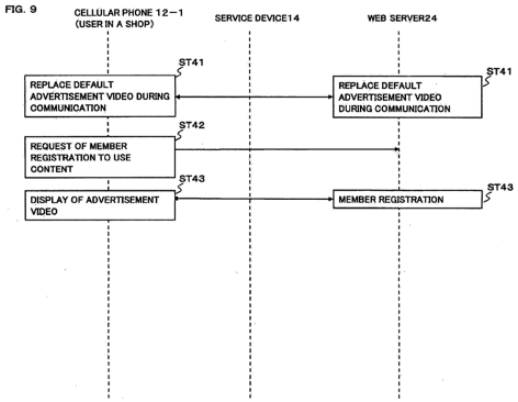
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| | with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The |

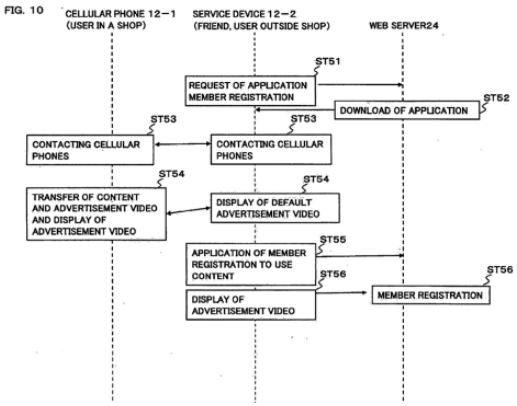
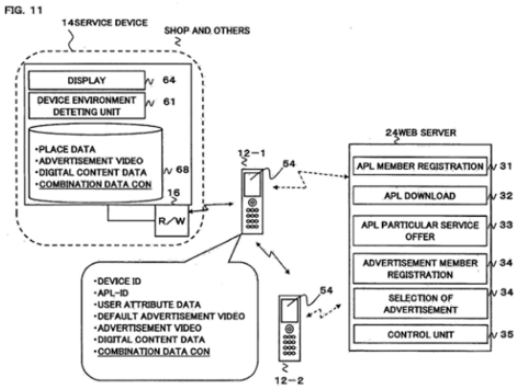
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| | geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. |

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| | For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br><br>FIG. 3<br>  <br><br>Kinoshita ’866 at Fig. 3. |

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| | FIG. 4<br>  <br><br>Kinoshita ’866 at Fig. 4.<br>  <br><br>Kinoshita ’866 at Fig. 5. |

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| |  <br>Kinoshita ’866 at Fig. 6.<br>  <br>Kinoshita ’866 at Fig. 7. |

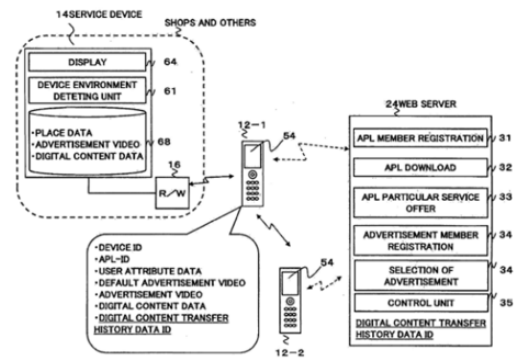
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| |  <br>Kinoshita ’866 at Fig. 8.<br>  <br>Kinoshita ’866 at Fig. 9. |

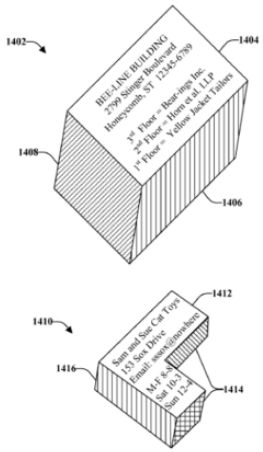
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| |  <br>Kinoshita ’866 at Fig. 10.<br>  <br>Kinoshita ’866 at Fig. 11. |

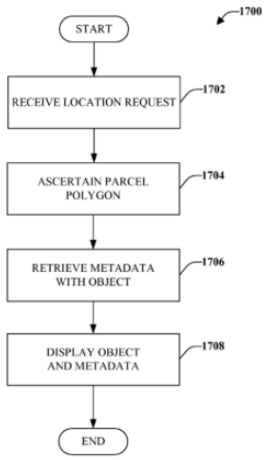


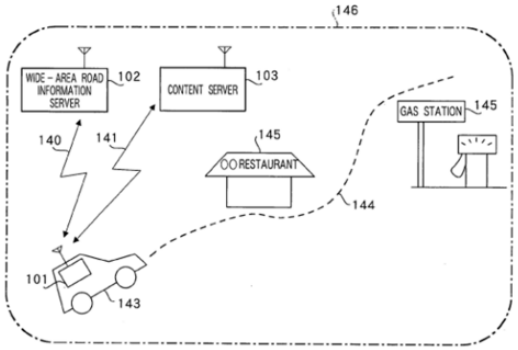


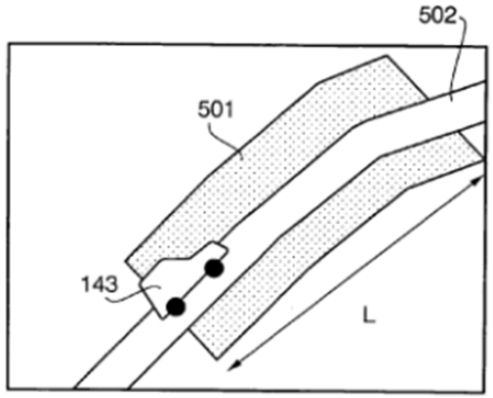
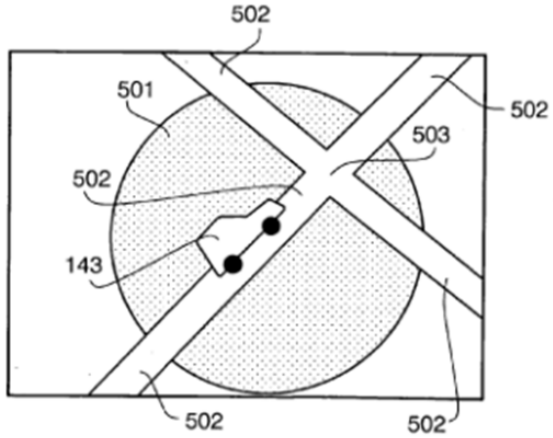
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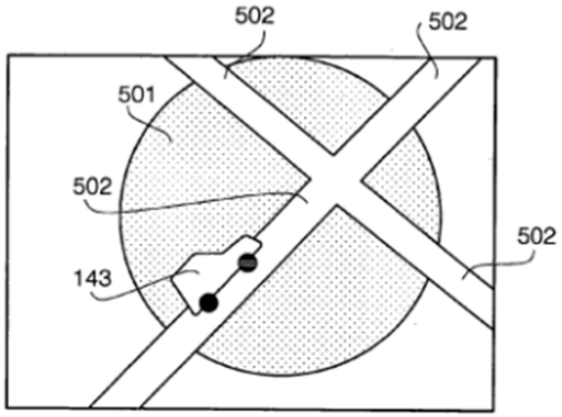
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| | FIG. 12<br>  <br><br>Kinoshita ’866 at Fig. 12.<br>“The second aspect of the present invention is a service processing device comprising: an interface that performs short-range communication with a mobile communication device directly or indirectly; a memory that stores place data; and a controller that receives attribute data of a user or user's mobile communication device from user's mobile communication device, transfers the attribute data and the place data read out from the memory to the server, and performs announcement based upon recommendation data corresponding to the place data received from the server.” Kinoshita ’866 at [0010].<br>“The fourth aspect of the present invention is a server for providing information associated with a mobile communication device that performs short-range communication with a service processing device installed at a predetermined place, the server comprising: an interface that receives attribute data of a user or his mobile communication device and place data of a place where the service processing device is installed from the mobile communication device or the service processing device; a memory that stores recommendation data which is associated with the attribute data and the place data; and a controller that reads out, from the memory, the recommendation data which is associated with the attribute data received by the interface and the place data, and transfers the recommendation data to the mobile communication device or the service processing device through the interface.” Kinoshita ’866 at [0012].<br>“The cellular phones 12-1 and 12-2 can perform short-range communication with the R/W device 16 at shops or venues where the R/W devices are installed if the cellular phone is put near the R/W device.” Kinoshita ’866 at [0029]. |

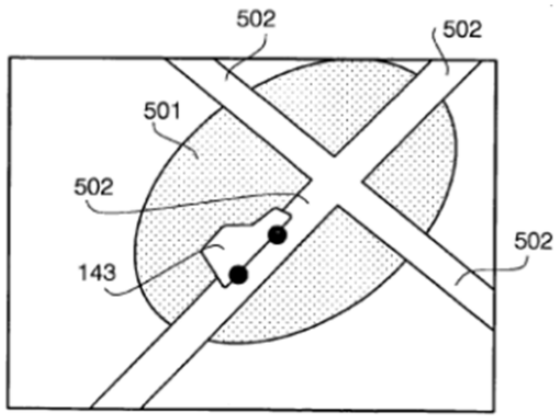
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| | “The service device 14 is installed at a place such as a shop, and communicates with the cellular phone 12-1 via the R/W device 16. ” Kinoshita ’866 at [0037].<br>*See also* Kinoshita ’866 at Fig. 1, [0009], [0043], and [0100].<br>  <br><br>**FIG. 14**<br>Smith ’558 at Fig. 14. |

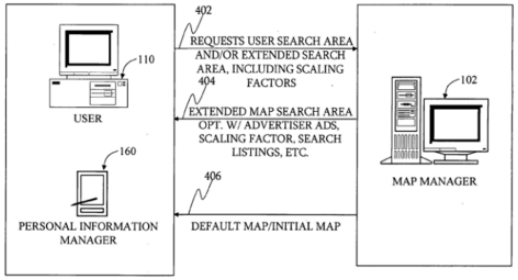
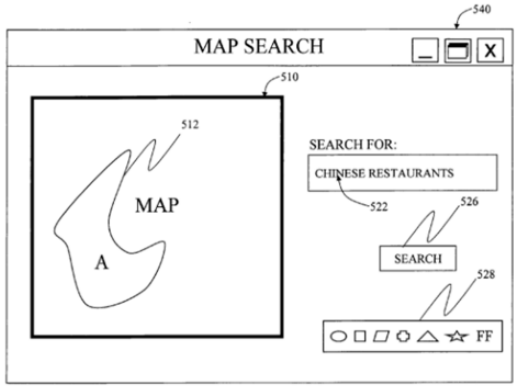
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| |  <br>**FIG. 17**<br>Smith ’558 at Fig. 17.<br>“The parameter component 304 (or rendering component 302) can present the user configured information and the specific geographic area to a user. In such a manner, the information presented to the user can be selectively configured based on the one or more user parameters.” Smith ’558 at [0097].<br>“Also included in system 500 can be a boundary component 508 that can be configured to determine a boundary or perimeter of an object or point of interest.” Smith ’558 at [0103].<br>“Boundary component can also ascertain a boundary or perimeter of the object or area of interest. The perimeter can be, for example, the footprint of the object (e.g. roof, sides of a structure). According to some embodiments, the perimeter or boundary information can be ascertained from an algorithm. For example, a parcel polygon or geometric figure (e.g., circle, rectangle, square, cube, . . . ) that defines a rooftop or viewable surface can be received by receiver component 502. Such geometric information can be uploaded by a business, for example, that defines the rooftop. Boundary component 508 can utilize that parcel polygon information and infer that there is potentially only one building (or other area of interest) inside that parcel polygon area. Based on the inference, the edges or perimeters of the area of interest (e.g., structure) can be computed to ascertain a built-up area (e.g., side of a structure) that includes the area of interest. It should be |

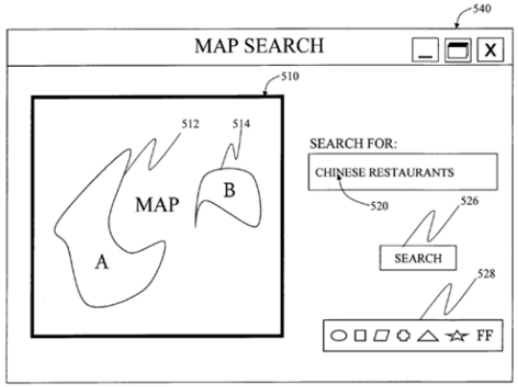
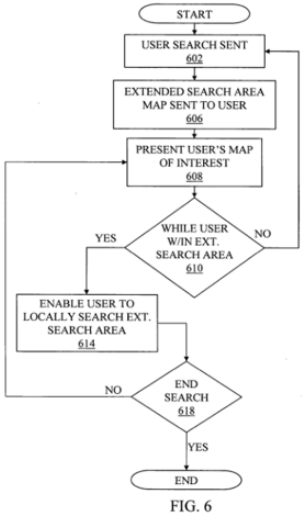
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| | understood that various algorithms, methods, and/or techniques can be employed to ascertain the object shape, size, or area.” Smith ’558 at [0105].<br><br>“For example, a building owner or other authorized person can submit or upload a polygon that defines the rooftop.” Smith ’558 at [0125].<br><br>“ For these areas of interest, the parcel polygon module 810 can ascertain that the area of the object of interest is the perimeter of the parcel (e.g., park, zoo, . . . ). The edge detection module 812 can be configured to render the information viewable within the area of the object of interest.” Smith ’558 at [0126].<br><br>“FIG. 16 illustrates a methodology 1600 for associating information with an object of interest. Method 1600 begins at 1602 where object information is received from one or more users and/or entities. The object information can include an image or picture depicting an object of interest. The image can be a three-dimensional image of a particular location, place, etc. The object information can include geo-coded information (e.g., longitude, latitude, street information, and the like).” Smith ’558 at [0163].<br><br>  <br>FIG. 1<br>Sato ’965 at Fig. 1. |

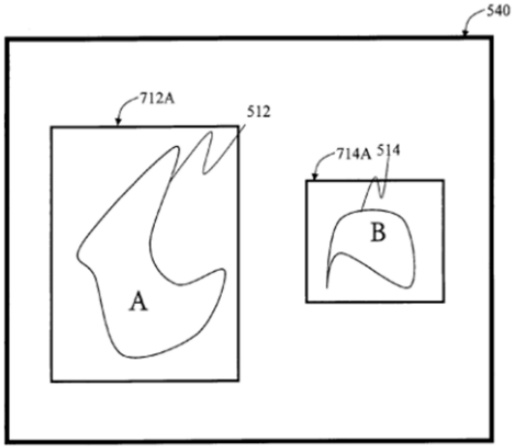
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| |  <br>FIG. 7<br>Sato ’965 at Fig. 7.<br>  <br>FIG. 8 |

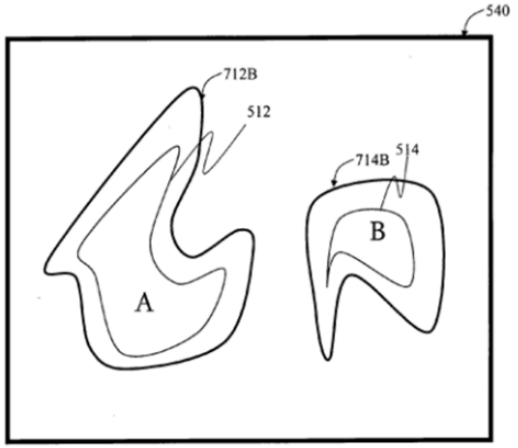
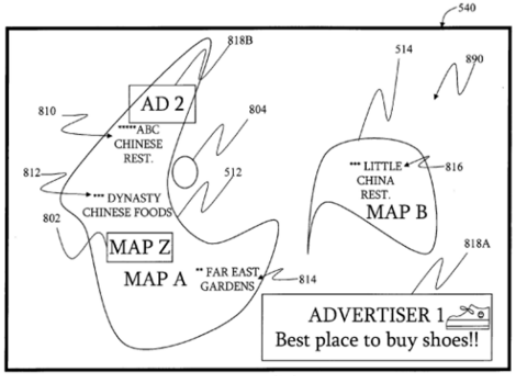
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| | Sato ’965 at Fig. 8.<br>  <br><br>FIG. 9<br>Sato ’965 at Fig. 9. |

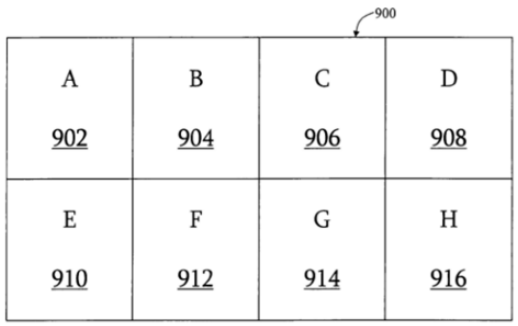
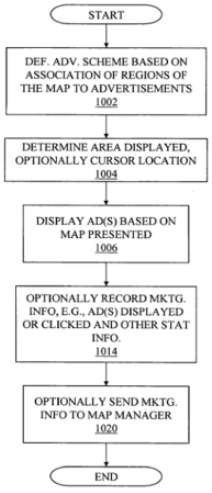
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| |  <br>FIG.10<br>Sato ’965 at Fig. 10.<br>“Mobile unit 143 moves inside predetermined region 146. For example, the region 146 is a nation, Kanto area, Kansai are, prefecture, city, town or village. Further, the region 146 may be a specific area determined independently of governmental classification. Furthermore, when path 144 is planned in advance, region 146 may be determined to a region around path 144.” Sato ’965 at [0048].<br>“In the example as shown in FIG. 8, content data acquisition region 501 is determined as a region in the form of a circle with mobile unit 143 as its center.” Sato ’965 at [0123].<br>“Content data acquisition region 501 as shown in FIG. 9 is determined as a circular region with the center positioned forward of mobile unit 143.” Sato ’965 at [0128].<br>*See also* Sato ’965 at Fig. 3, Fig. 4, Fig. 5, Fig. 6, Fig. 26, [0054], [0079], [0080], [0119], and [0284]. |

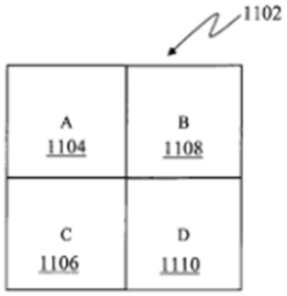
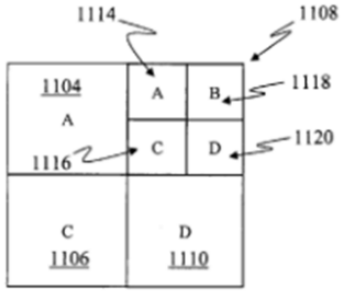
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| |  <br>FIG. 4<br>Ahn ’281 at Fig. 4.<br>  <br>FIG. 5C<br>Ahn ’281 at Fig. 5C. |

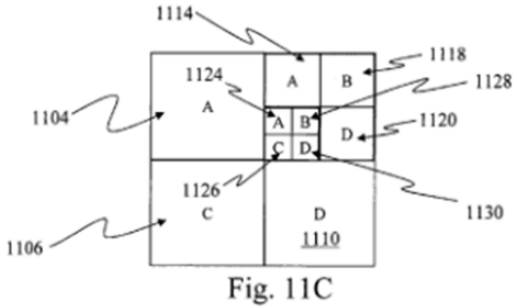
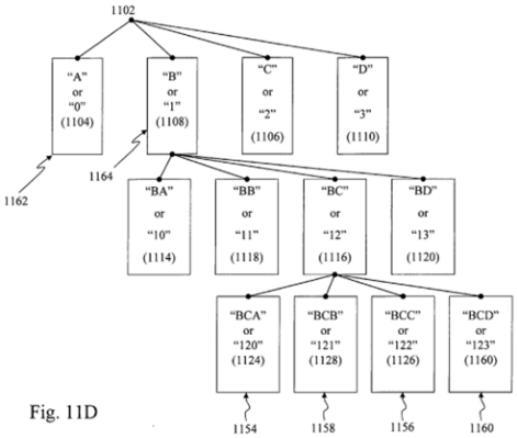
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| |  <br>FIG. 5D<br>Ahn ’281 at Fig. 5D.<br>  <br>FIG. 6<br>Ahn ’281 at Fig. 6. |

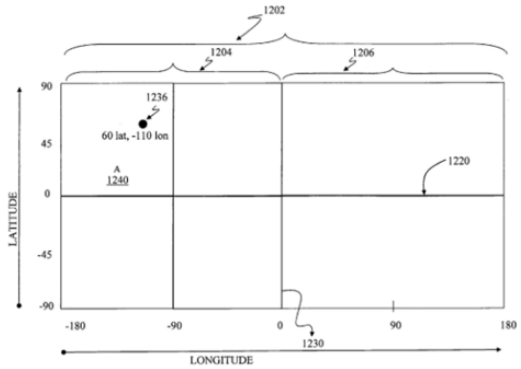
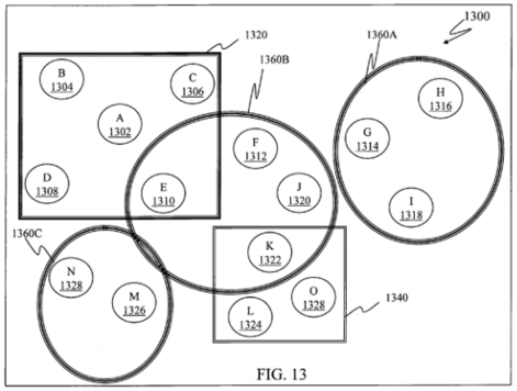
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| |  <br>FIG. 7A<br>Ahn ’281 at Fig. 7A. |

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| |  <br>FIG. 7B<br>Ahn ’281 at Fig, 7B.<br>  <br>FIG. 8A<br>Ahn ’281 at Fig. 8A. |

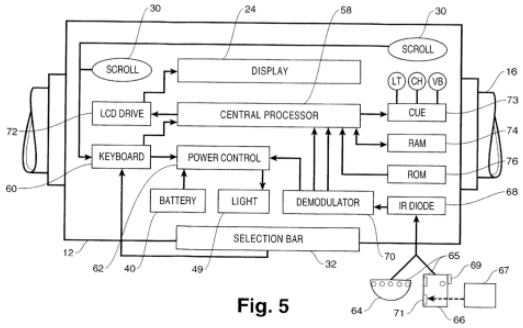
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| |  <br>FIG. 9<br>Ahn ’281 at Fig. 9.<br>  <br>FIG. 10<br>Ahn ’281 at Fig. 10. |

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| |  <br>Fig. 11A<br>Ahn ’281 at Fig. 11A.<br>  <br>Fig. 11B<br>Ahn ’281 at Fig. 11B. |

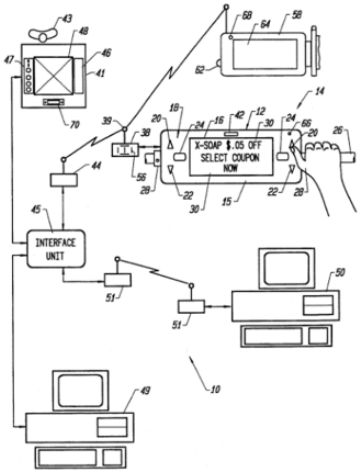
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| |  <br>Fig. 11C<br>Ahn ’281 at Fig. 11C.<br>  <br>Fig. 11D<br>Ahn ’281 at Fig. 11D. |

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| |  <br>Fig. 12<br>Ahn ’281 at Fig. 12.<br>  <br>FIG. 13<br>Ahn ’281 at Fig. 13.<br>“In addition to the extended map sent back to the user, map-advertising information is also sent back in accordance with an embodiment of the invention. The map-advertising information is a set of information that generally is used by the local map handler 302 to decide which set of advertisements is presented to the user.” Ahn ’281 at [0055]. |

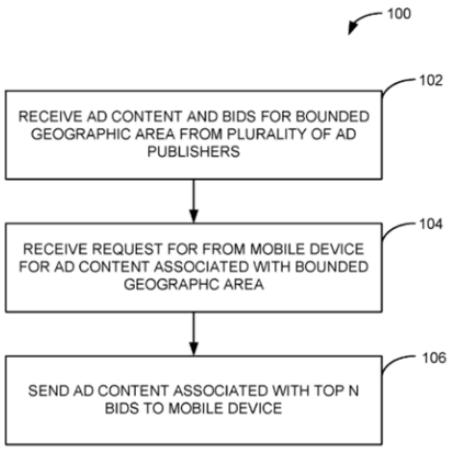
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| | “n another embodiment, a user may enter a query by specifying a geographic area, for example, by entering city and state, or zip code 538. Thus, a user may request a search area based on such input information and thus request information entirely or partially outside of the extended search area available. A user may also be conducting searches on the available map information locally available. The searches of an embodiment include for example two box and one box searches, but are not so limited. In a two box search a user inputs “what” and “where”, and “where” can be city, state and/or zip, lat/lon, landmark, airport code, etc. The one box search allows a user to type in a string like “restaurants in Beverly Hills, Calif.” Ahn ’281 at [0062].<br><br>“FIG. 10 is an example flowchart of a method by which the advertising feature of the present invention is provided, according to an embodiment of the invention. In the first operation, an advertising scheme is defined which is based on the association of advertising regions of a map to advertisements (step 1002). Next, the map presented to the user and, optionally, the cursor position, (step 1004) is used to determine the one or more advertisements to be displayed or presented to the user (step 1006). Marketing-related information, such as the advertisements presented and whether there was a click through, and other information are captured and stored (step 1014). This is captured on the client device 110 and alternatively also sent to the map manager 102 (step 1020). This marketing-related information may be used to help in soliciting more advertising revenues or to tailor the advertising scheme to obtain a better stream of revenue.” Ahn ’281 at [0095].<br><br>“The geographic information knowledge (GIK) systems of an embodiment include a method for managing geographically referenced data (GRD). The method of an embodiment includes receiving a search request that includes a defined search area. The method of an embodiment includes providing an extended map based on the search request. The extended map includes geographic areas within the defined search area and outside the defined search area. The method of an embodiment includes providing the GRD. The GRD includes one or more of advertisements, contact information, and review information for one or more entities. The method of an embodiment includes providing map reference information of the GRD on the extended map.” Ahn ’281 at [0178].<br><br>“The GIK systems of an embodiment include computer readable medium including executable instructions which, when executed in a processing system, manage geographically referenced data (GRD), by receiving a search request that includes a defined search area. The computer readable medium of an embodiment provides an extended map based on the search request. The extended map of an embodiment includes geographic areas within the defined search area and outside the defined search area. The computer readable medium of an embodiment provides the GRD. The GRD includes one or more of advertisements, contact |

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| | information, and review information for one or more entities. The computer readable medium of an embodiment provides map reference information of the GRD on the extended map.” Ahn ’281 at [0205].<br><br>*See also* Ahn ’281 at Fig. 1 and [0077].<br><br>  <br><br>**Fig. 5**<br><br>Begum ’880 at Fig. 5.<br><br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br><br>“Since the point of purchase promotion is most effective when the customer is at ground zero, that is, proximate the shelf location of the promoted item, the graphic must be transmitted, received and formatted for display in the brief time that the shopper is strolling past the promoted item.” Begum ’880 at 4:33–38.<br><br>“The infrared or radio frequency receiver in the handle, used for an alarm when the cart or handle leaves a prescribed area, also be used to receive an advertisement signal by appropriate programming as described.” Begum ’880 at 4:59–63.<br><br>“The display device 12 also includes a radiation window 34 centrally located above display screen 24. The radiation window includes multiple cells 36, which may comprise receivers for receiving microwave, infrared or other air propagated radiation energy for power supplementation or for reception of external data or control signals transmitted by microwave, infrared or radio signals. For example, in the device of FIG. 2, end cells |

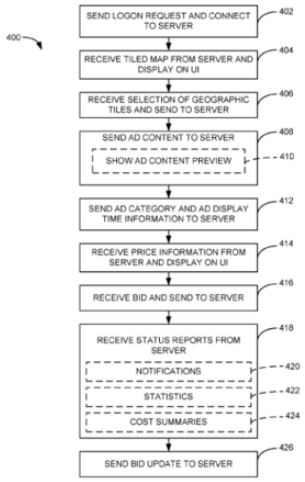
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| | 36a are utilized for receiving trigger signals emitted from signal transmitters positioned at strategic locations at the perimeter of a shopping establishment to trigger an alarm on the cart and at a central monitoring station in the establishment. Also, the cells 36a may be used to receive trigger or message signals from transmitters positioned strategically along each side of grocery aisles. These signals activate display of select promotional advertisements on the display screen as described in the referenced patent. The cells 36a are preferably used to receive digital message signals from the strategically positioned transmitters as described in greater detail with reference to the operation of the preferred embodiments.” Begum ’880 at 6:18–37.<br><br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“Each transceiver unit 65 can have a separate identification such that data transmitted from the control unit 67 is transmitted store wide but is processed and stored only by the transceiver unit to which the data is intended.” Begum ’880 at 9:8–11. |

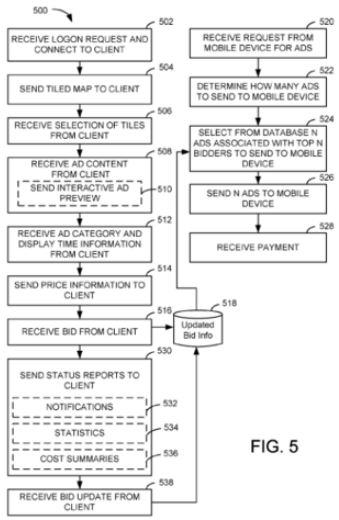
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| | “In the preferred embodiment, the transceiver unit 65 upon detection of a proximately located shopping cart transmits a trigger signal to wake-up the display unit on the shopping cart if not already in an activated state, then sends the data signal.” Begum ’880 at 9:12–16.<br><br>“The trigger and data signals, together with a converted D.C. power potentials are delivered to the power control circuit for system wakeup, and trickle feed of energy to the battery pack 40. The trigger signal is passed to the cue output circuit 73, which may be one or more of an audible chime, a handle vibration or a light. Certain IR triggers 66 at the store perimeter may not only trigger an audible alarm in the display unit 12, but include a sound or ultrasound receiver for activating an alarm in the store office when a select frequency emitted by the display unit is detected.” Begum ’880 at 9:56–65.<br><br>*See also* Begum ’880 at 1:60–2:5, 5:65–6:4, and 9:16–29.<br><br>  <br><br>FIG. 1<br>Begum ’606 at FIG. 1.<br><br>“ The terminal is connected to a store computer which provides a central location for accessed product data for the many checkout terminals in the store.” Begum ’606 at 2:54–57. |

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| | “ In some embodiments, for example, the application-initiated content request may include a data item selected, e.g., taking into account the capabilities of the device, from a group consisting of: a data item representing an available memory of the wireless communication device, a data item representing an audio capability of the wireless communication device, a data item representing a video capability of the wireless communication device, a data item representing a screen size of the wireless communication device, a data item representing a content item type that the wireless communication device is able to present, and a data item representing a location of the wireless communication device.” Levkovitz ’852 at [0010].<br><br>“In some embodiments, for example, the modifier is to select the advertisement based on a location of the second wireless communication device.” Levkovitz ’852 at [0045].<br><br>“A fifth presentation rule may require, for example, that a certain content item, e.g., an advertisement for a certain shop, be presented when device 170 is geographically located within a pre-defined distance (e.g., 300 meters) of the address of that shop.” Levkovitz ’852 at [0159].<br><br>“The SMSC 311 may utilize a Home Location Register (HLR) 313 to determine (e.g., using interrogation) whether recipient device 302 is active, and/or to determine the roaming location of recipient device 302; and may deliver the modified SMS message to recipient device 302, e.g., optionally utilizing a Mobile Switching Center (MSC) 312.” Levkovitz ’852 at [0195].<br><br>“In some embodiments, user-selectable operations may be associated with an incoming content item based on one or more properties or characteristics, for example, of the device 1070 and/or its user, and/or other data or parameters (e.g., date, time, location, or the like).” Levkovitz ’852 at [0272].<br><br>“a fourth user-selectable operation may be available only when the user or the device 1070 meets certain conditions, e.g., if the device 1070 is within a certain location (e.g., in proximity to a certain restaurant)” Levkovitz ’852 at [0272].<br><br>“For example, a first user-selectable action associated with a first incoming content item, may be available only during a certain time and/or while the recipient device is within a certain geographical location.” Levkovitz ’852 at [0273].<br><br>*See also* Levkovitz ’852 at [0026]. |

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| |  <br>FIG. 1<br>Bussmann ’294 at FIG. 1. |

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| |  <br>FIG. 3<br>Bussmann ’294 at FIG. 3. |

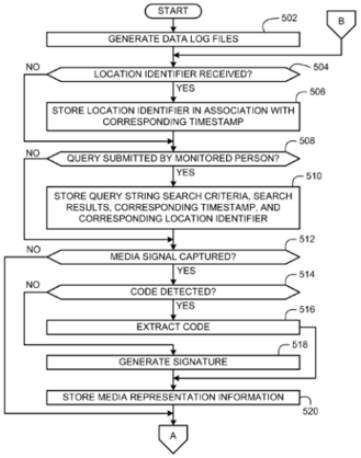
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| |  <br>FIG. 4<br>Bussmann ’294 at FIG. 4. |

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| |  <br>FIG. 5<br>Bussmann ’294 at FIG 5.<br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. |

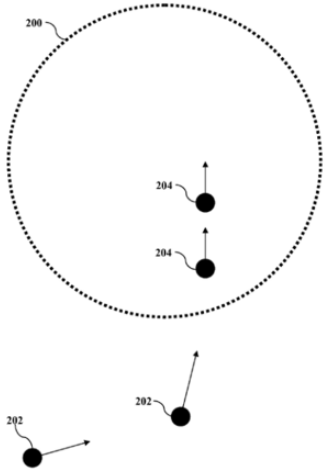
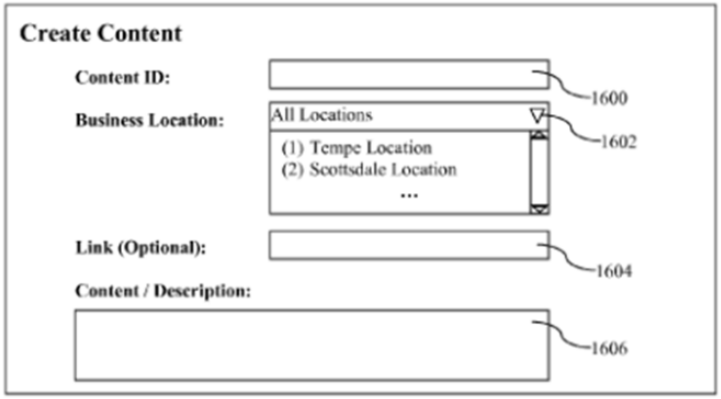
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| | Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“As described above, the bids submitted by each advertising publisher related to a specific bounded area or areas in a geographic region of interest. To enable the solicitation and receipt of such bids, the advertising server 202 may be configured to send each advertising publisher computing device 204, 206, 208 a map showing a geographic region of interest divided into one or more bounded areas. Such bounded areas may be referred to herein as “tiles” defined on the map, and a map that is divided into such bounded areas may be referred to as a “tiled map.” FIG. 3 is an example of map 300 showing a geographic region divided into a plurality of tiles 302. The number and size of tiles into which a geographic region is divided may be selected in any suitable manner. For example, dense urban areas with many businesses per map unit area may be divided into smaller tiles, while less dense rural areas may be divided into larger tiles. In this manner, each individual tile may be separately priced depending upon demand for the distribution of location-based advertising content items in that tile. Likewise, the tiles may have any suitable shape. In the depicted embodiment, the tiles are rectangular in shape and are of equal size. However, in other embodiments, the tiles may have any other suitable shape, and may be of unequal size. Furthermore, while the depicted map is shown as a two-dimensional representation of a geographic area, it will be understood that the map may support either fewer or more dimensions. For example, some maps may be tiled along a third physical dimension. An example of such a scenario is a city with high-rise buildings, wherein different advertising content items may be displayed at different elevations within buildings in the area.” Bussmann ’294 at [0015].<br><br>“Upon receipt of such a map, an advertising publisher computing device 204 may receive an input of a selection of one or more tiles in which the publisher wishes to have its advertising content distributed, and then send the selection to the advertising server along with the item or items of advertising content the |

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| | publisher wishes to distribute. The advertising publisher computing device 204 also may send other advertising information, such as advertising category information and desired advertising times, to the advertising server 202. This information is collectively referred to as “ad info” in FIG. 2. Upon receipt of this information, the advertising server 202 may provide pricing information to the advertising publisher computing device 204. In some embodiments, the pricing information may comprise a “future price”, as opposed to the current price reflected by the map, and may be determined by a highest existing bid or bids for each selected tile over the requested time interval in light of the category information provided by the advertising publisher. In some embodiments, the total price for a multi-tile area may be lower than a sum of the highest bids for each requested tile for the requested time interval, while in other embodiments, the price for a multi-tile area may have any other suitable relationship to the sum of the individual tile pricings. As described below, the pricing information may be continuously updated as bids are received from various users and demand for the tiles increases or decreases. Further, where no bids have been made on a selected tile, the pricing information may comprise a preselected minimum price for a tile.” Bussmann ’294 at [0017].<br><br>“Next, method 400 comprises, at 404, receiving a tiled map from the server and displaying the tiled map on a graphical user interface, wherein the tiled map shows an N-dimensional view of a geographic region divided into one or more tiles. In this manner, an advertising publisher may select tiles corresponding to geographic areas in which (or in connection with which) the publisher wishes to have an item of advertising content displayed. As described above, each tile may have any suitable shape and size. For example, dense urban areas may be divided into more tiles than less dense rural areas. Further, each tile may have a size and shape similar to the other tiles, or one or more tiles may have different sizes and shapes compared to the other tiles. In some embodiments, the tiles may have arbitrary polygonal (or polycurved, etc.) shapes that do not correspond to geographic features of the region represented by the map. In other embodiments, the tiles may have boundaries that follow geographic features of the region represented by the map. Further, the map may be displayed in colors or other visual indicators of the relative demand and/or cost of each tile displayed.” Bussmann ’294 at [0026].<br><br>“Method 400 next comprises, at 406, receiving a selection of tiles from a user via the graphical user interface, and then sending the selection of tiles to the advertising server. In addition to the selection of tiles, advertising content for the selection of tiles also may be sent to the advertising server, as indicated at 408. In some embodiments, as indicated at 410, the advertising content may then be viewed in a preview feature offered by the advertising content server. Such a preview may allow an advertising publisher to view a representation of how advertising content may appear to users of different types of devices, at different levels of zoom and/or |

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| | panning, etc. In this manner, an advertising publisher may use the preview process as an aid to developing effective advertising content for specific devices, locations, etc.” Bussmann ’294 at [0027].<br><br>“Continuing with the figures, FIG. 5 shows a method 500 of operating an advertising server. Method 500 illustrates various details of method 400 from the advertising server's point of view, where communications with an advertising publisher client are shown in a left-hand side of the figure and communications with a device are shown in a right-hand side of the figure. Method 500 first comprises, at 502, receiving a logon request from an advertising publisher client, and connecting to the client. Next, at 504, a tiled map is sent to the client to allow the advertising publisher to select tiles in which it is interested in having its advertising content distributed.<br><br>After sending the tiled map, a selection of tiles on the map is received from the client at 506, and advertising content is received from the client at 508. As described above, in some embodiments, an advertising server may be configured to allow an advertising publisher to view a preview of advertising content in the tiles selected by the advertising publisher. Therefore, method 500 comprises, at 510, sending an advertising content preview to the client. In some embodiments, the advertising content preview may be an interactive preview configured to allow an advertising publisher to view an item of advertising content on different types of devices, at different levels of zoom, panning, etc. to see how the item of advertising content will appear to a user in various specific geographic locations. In this manner, an advertising publisher may be able to tailor an appearance of an item of advertising content to a desired appearance in a specific device and/or location.<br><br>Method 500 next comprises, at 512, receiving advertising category and advertising display time information from the client. Examples of category and display time information are discussed in detail above. While the depicted embodiment shows the category and time information appearing in a later step than the receipt of the ad content and selection of tiles, it will be understood that these items may be received in any suitable order.<br><br>Upon receipt of the selection of tiles, ad content, and category and time information, method 500 comprises, at 514, sending price information to the client, and then at 516, receiving a bid from a client. The bid is then stored in an updated bid information database, as indicated at 518. It will be understood that processes 502-518 may be performed by a plurality of different publishers on a continuous, rolling basis as clients wish to submit bid information. Further, the advertising server also may interact with requesting devices on a continuous, rolling basis to provide items of advertising content to the devices. An example of a transaction with a device such as a PND or the like is shown in FIG. 5 at 520-526. First, at 520, method 500 comprises receiving from a device a request for advertising content. Upon receipt of this request, it is determined, at 522, a number N of items of advertising content to send to the device. The number N of items of advertising |

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| | content may vary depending upon a number of factors, including but not limited to, a type/brand/model of device that sent the request, a current level of zoom currently shown on the device display, and/or whether any advertising publishers have paid for exclusive advertising rights to a tile that is within the relevant geographic area.” Bussmann ’294 at [0035]–[0038].<br>  <br><br>FIG. 5A<br>Mello ’479 at FIG. 5A.<br>“The example geographic area 10, in which the example methods and apparatus described herein may be implemented, includes an example business 12, which may sell products and/or services. The example geographic area 10 also includes various media that may be used to present advertisements or other information (e.g., product/services information, entertainment audio/video, etc.).” Mello ’479 at [0028].<br>“After the web event data collector 166 stores the query string search criteria and associated information (block 510) or if the web event data collector 166 determines that a query has not been submitted (block 508), the media capture data collector 168 (FIG. 3) determines whether a media signal (e.g., an audio signal, a video signal, an RF signal, etc.) has been captured (block 512). For example, the media signal may be an audio signal associated with an advertisement presented by the audio device 16 or the video device 18 (FIG. |

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| | 1), a video signal presented by the video device 18 (FIG. 1), or an RF signal emitted by the RF transceiver 22 of the billboard 20 (FIG. 1).<br><br>The media capture data collector 168 then determines whether the captured media signal includes a code (block 514). If the captured media signal includes a code, the media capture data collector 168 extracts (or creates a copy of) the code (block 516). If the captured media signal does not include a code (block 514), the media capture data collector 168 generates a signature of the captured media signal (block 518). Alternatively, a signature can always be collected regardless of whether a code was collected. After the media capture data collector 168 extracts a code (block 516) and/or generates a signature (block 518), the media capture data collector 168 stores the media representation information (e.g., the code and/or the signature) (block 520) in the media data log file 184 (FIG. 3).<br><br>After the media capture data collector 168 stores the media representation information (block 520) or if the media capture data collector 168 determines that a media signal has not been captured (block 512), the consumer purchase data collector 170 determines whether any input data relating to potential purchases have been received (block 522) (FIG. 5B). In the illustrated example, the potential purchase data is data indicative of a product or a service such as, for example, bar code information read using the bar code reader 136 (FIG. 2) or RFID information received via the RF transceiver 134 (FIG. 2) in response to the monitored person 32 scanning a product or a service document. If the consumer purchase data collector 170 determines that potential purchase data has been received (block 522), the consumer purchase data collector 170 determines whether the monitored person 32 purchased the product or service corresponding to the received potential purchase data (block 524). For example, the consumer purchase data collector 170 may receive subsequent information or the potential purchase information received at block 522 may have a corresponding purchase confirmation flag indicating that the monitored person 32 purchased the related product or service. If the consumer purchase data collector 170 determines that the monitored person 32 made the purchase (block 524), the consumer purchase data collector 170 stores the purchase information (block 526) in association with a corresponding timestamp and location identifier in the purchase data log file 186 (FIG. 3).” Mello ’479 at [0082]–[0084]. |

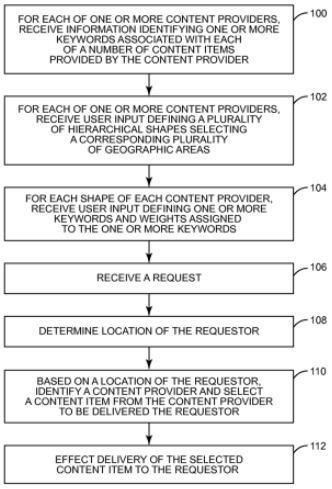
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| |  <br>FIG. 2A<br>Busch ’815 at Fig. 2A.<br>  <br>FIG. 16A |

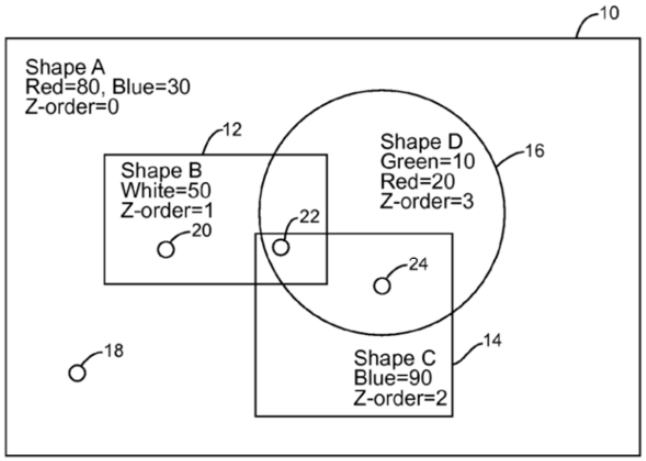
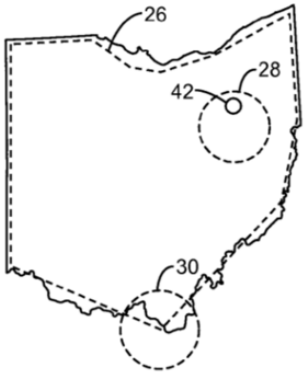


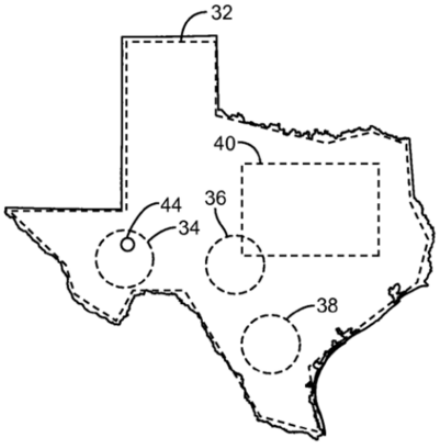


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| | Busch ’815 at Fig. 16A.<br><br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br><br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, integration of location data with customer relationship management systems and systems to determining retail business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br><br>“The location is a specific business locations defined by a coordinate or a perimeter; however, the location may also be a group of businesses defined by a list of different geographic locations.” Busch ’815 at [0286].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract. |

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| |  <br>*FIG. 1*<br>Svendsen ’073 at Fig. 1. |

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| |  <br>***FIG. 2A***<br>Svendsen ’073 at Fig. 2A.<br>  <br>***FIG. 4A***<br>Svendsen ’073 at Fig. 4A. |

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| |  <br>***FIG. 4B***<br>Svendsen ’073 at Fig. 4B. |

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| SHAPE | Z-ORDER | KEYWORDS |
|---|---|---|
| 26 | 0 | Change = 80, NAFTA = 30, election = 100, experience = 20 |
| 28 | 1 | job loss = 50, trade deficit |
| 30 | 2 | Iraq = 90, oil prices = 70 |
| 32 | 0 | Change = 80, NAFTA = 30, election = 100, experience = 20 |
| 34 | 1 | trade deficit = 80 |
| 36 | 2 | Iraq = 90 |
| 38 | 3 | job loss = 50 |
| 40 | 4 | oil prices = 70 |

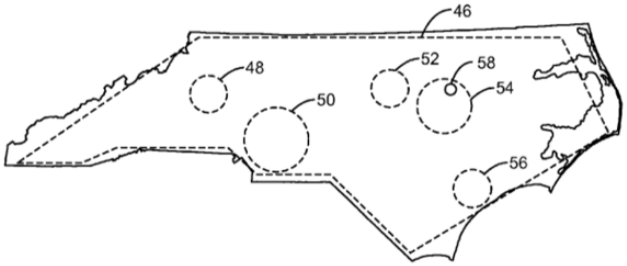
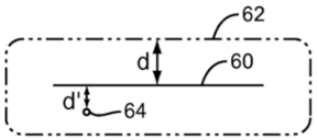
***FIG. 4C***

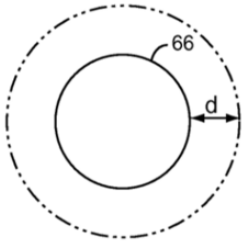
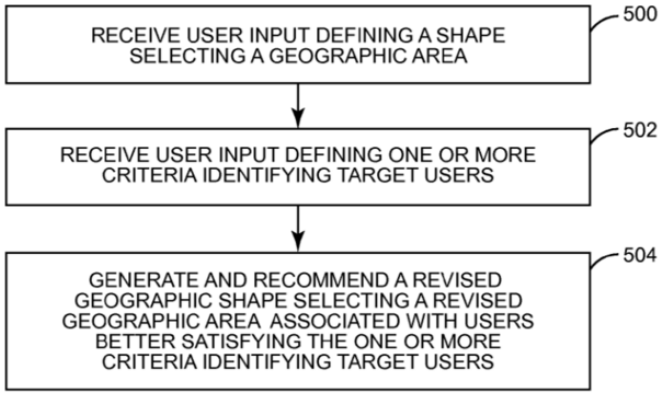
Svendsen ’073 at Fig. 4C.

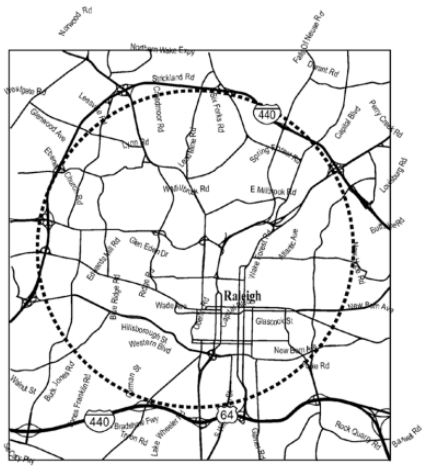
| POINT | INTERSECTING SHAPES | KEYWORDS | BID |
|---|---|---|---|
| 42 | 26, 28 | Change = 80, NAFTA = 30, election = 100, experience = 20, job loss = 50, trade deficit = 25 | 305 |
| 44 | 32, 34 | Change = 80, NAFTA = 30, election = 100, experience = 20, trade deficit = 80 | 310 |

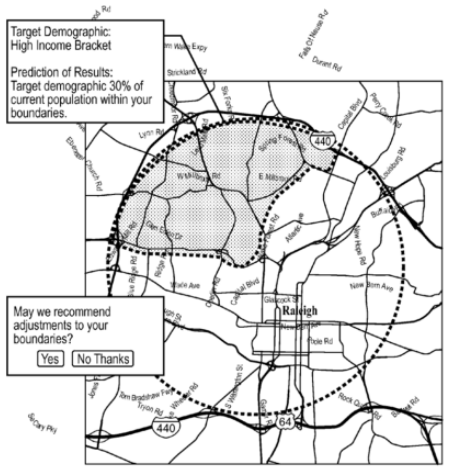
***FIG. 4D***

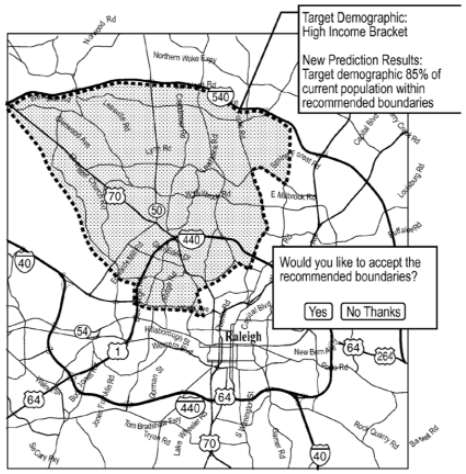
Svendsen ’073 at Fig. 4D.

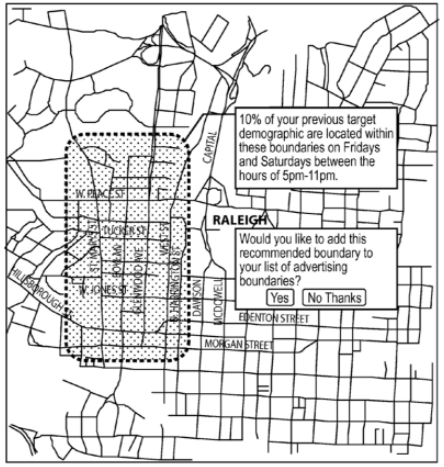
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| |  <br>*FIG. 6A*<br>Svendsen ’073 at Fig. 6A.<br><br>SHAPE \| Z-ORDER \| KEYWORDS<br>46 \| 0 \| Rock = 80, Country = 30, Pop = 30<br>48 \| 1 \| Alternative = 50<br>50 \| 2 \| Polka = 200<br>52 \| 3 \| Rap = 80<br>54 \| 4 \| Jazz = 10<br>56 \| 5 \| Beach = 95<br><br>*FIG. 6B*<br>Svendsen ’073 at Fig. 6B.<br><br>  <br>*FIG. 7A*<br>Svendsen ’073 at Fig. 7A. |

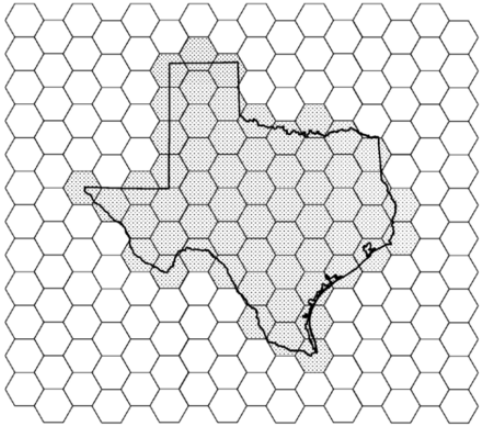
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| |  <br>***FIG. 7B***<br>Svendsen ’073 at Fig. 7B.<br>  <br>***FIG. 9***<br>Svendsen ’073 at Fig. 9. |

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| |  <br>FIG. 10A<br>Svendsen ’073 at Fig. 10A. |

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| |  <br>FIG. 10B<br>Svendsen ’073 at Fig. 10B. |

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| |  <br>FIG. 10C<br>Svendsen ’073 at Fig. 10C. |

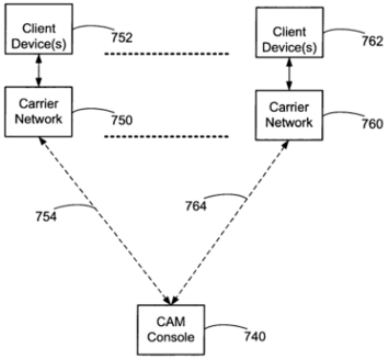
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| |  <br>*FIG. 10D*<br>Svendsen ’073 at Fig. 10D. |

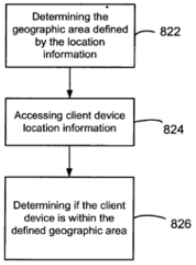
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| |  <br>FIG. 12<br>Svendsen ’073 at Fig. 12.<br><br>“For each content provider, the central custom content delivery function also receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. For each geographic shape, the content provider defines one or more tags for the geographic shape, or the geographic area selected by the geographic shape, and assigns a weight to each of the one or more tags. Like the tags assigned to the content items of the content provider, the tags assigned to the geographic shapes defined by the content provider may each be, for example, a keyword, a demographic criterion, or the like.” Svendsen ’073 at 1:31–41.<br><br>“In addition, for each content provider, information defining a number of geographic shapes selecting corresponding geographic areas is received from the content provider (step 102). Preferably, the geographic shapes are user-defined shapes defined by a user associated with the content provider. For example, a user associated with a content provider may provide a center point and radius defining a circle that selects a desired geographic area; four points defining a square or rectangular shape that selects a desired geographic area; a number of points, curves, or lines defining an arbitrary shape that selects a desired geographic area; or the like. As another example, the user may provide a line or curve and a distance (d) defining a shape selecting a geographic area within the distance (d) from the line or curve. Preferably, each of the geographic |

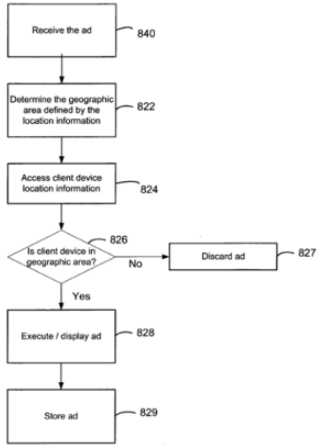
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| | shapes defined by a content provider completely or partially overlaps at least one other of the geographic shapes. In addition, the geographic shapes defined for a content provider are preferably hierarchical in that the geographic shapes are assigned importance levels, which are referred to herein as z-order values. For each geographic shape of each content provider, information is received from the content provider defining one or more keywords and corresponding weights assigned to the geographic shape (step 104).” Svendsen ’073 at 3:11–34.<br><br>“As an example, FIG. 2A illustrates exemplary geographic shapes 10 through 16 defined by a content provider according to one embodiment of the present invention. While not shown, the geographic shapes 10 through 16 are combined with or overlaid upon a map or similar data structure to identify the corresponding geographic areas. Each one of the geographic shapes 10 through 16 overlaps or intersects at least one other one of the geographic shapes 10 through 16, and each one of the geographic shapes 10 through 16 is assigned an importance level, or z-order value. In this example, the content provider has assigned the keyword Red with a weight of 80 and the keyword Blue with a weight of 30 to the geographic shape 10, which is also referred to as Shape A. In other words, the content provider has tagged the geographic shape 10 with the keywords Red and Blue. The content provider has assigned the geographic shape 10 a z-order value of 0, thereby setting the geographic shape 10 to a lowest importance level. Likewise, the content provider has assigned the keyword White with a weight of 50 to the geographic shape 12, which is also referred to herein as Shape B, and assigned the geographic shape 12 a z-order value of 1. The content provider has assigned the keyword Blue with a weight of 90 to the geographic shape 14, which is also referred to herein as Shape C, and assigned the geographic shape 14 a z-order value of 2. Lastly, the content provider has assigned the keyword Green with a weight of 10 and the keyword Red with a weight of 20 to the geographic shape 16, which is also referred to herein as Shape D, and assigned the geographic shape 16 a z-order value of 3.” Svendsen ’073 at 3:35–63.<br><br>“IGS. 4A through 4D graphically illustrate the process of FIG. 3 with respect to one advertiser according to one embodiment of the present invention. FIGS. 4A and 4B illustrate geographic shapes defined by the advertiser to select geographic areas of interest to the advertiser. More specifically, as illustrated in FIG. 4A, the advertiser has defined a geographic shape 26 selecting the state of Ohio, a geographic shape 28 selecting a geographic area within the state of Ohio, and a geographic shape 30 selecting a geographic area including part of the state of Ohio as well as part of the states of Kentucky and West Virginia (not shown). In addition, as illustrated in FIG. 4B, the advertiser has defined a geographic shape 32 selecting the state of Texas and geographic shapes 34 through 40 selecting corresponding geographic areas within the state of Texas.” Svendsen ’073 at 7:49–63. |

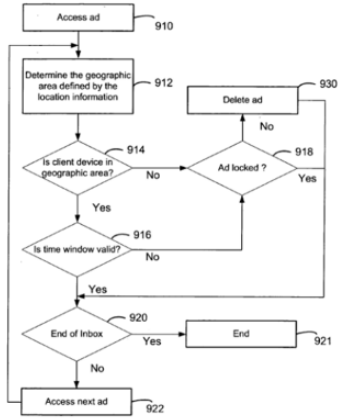
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| | “FIGS. 6A through 6C graphically illustrate the process of FIG. 5 according to one embodiment of the present invention. FIG. 6A illustrates geographic shapes defined by a content provider to select geographic areas of interest to the content provider.” Svendsen ’073 at 9:62–66.<br><br>“More specifically, as illustrated in FIG. 6A, the audio provider has defined a geographic shape 46 selecting the state of North Carolina and geographic shapes 48 through 56 selecting corresponding geographic areas within the state of North Carolina. FIG. 6B illustrates keywords and corresponding weights assigned to each of the geographic areas 46 through 56 by the audio provider as well as z-order values, or importance levels, assigned to the geographic shapes 46 through 56 by the audio provider. Note that in this example, the keywords are music genres.” Svendsen ’073 at 10:3–12.<br><br>“As discussed above, an account of a content provider includes information defining geographic shapes defined by the content provider and, for each content item of the content provider, one or more keywords assigned to the content item. In addition, for each geographic shape defined by the content provider, the account of the content provider includes keywords assigned to the geographic shape as well as weights for those keywords. Lastly, the account may include a z-order, or importance level, for each of the geographic shapes.” Svendsen ’073 at 13:52–60.<br><br>“Using advertisers as an example, in operation, one or more advertisers register with the customized content delivery function 78. As discussed above, each advertiser defines a number of geographic shapes selecting corresponding geographic areas.” Svendsen ’073 at 14:19–23.<br><br>“It should be noted that due to the arbitrary nature of the geographic shapes that may be defined by the content providers, it could become computationally expensive to sift through all geographic shapes given a request from a requester located at a specific position. Thus, in one embodiment, an overall geographic area from which the content providers may select may be divided into a number of cells as illustrated in FIG. 12.” Svendsen ’073 at 15:1–8.<br><br>*See also* Svendsen ’073 at 4:48–67.<br><br>“There are already several ad network/platforms available for iPhone apps. Here’s the current list of offerings:<br><br>• Crisp Wireless - currently creates banners + microsites; used by the New York Times and Washington Post apps<br><br>• PurpleTalk - allows creation of customizable text banners; features ad exchange “Partner Network” |

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| | • AppLoop - claims to be the first real-time, location-based mobile advertising network<br>• Pinch Media - widely-used ad network on dozens of iPhone apps<br>• Medialets - offers CPM, CPC and CPA advertising run natively through iPhone apps<br>• AdMob -offers rich-media (video-, map- and Apple App Store-integrated) banner ads on iPhone apps; also has an impressive list of signed clients” Menayan 2008 at 1.<br>“• Precisely Target your ads based on location and context.<br>• Advanced Statistics report the performance of all your advertising campaigns.<br>• Engage dedicated, valuable, and near-by users from the palm of their hand.<br>Get Started<br>• Bring your advertising strategy to the next level with location-based mobile advertising, Why spend money advertising to people sitting on their couch or at a computer desk? Mobile application users are active and ready to spend money.” AppLoop.com: Advertisers at 1.<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [1c] reserving delivery of content from a plurality of sponsors to the plurality of registered application programs on the basis of both a geographic area and an application program type associated with each of the plurality of registered application programs; | The following prior art expressly or inherently discloses and renders obvious “reserving delivery of content from a plurality of sponsors to the plurality of registered application programs on the basis of both a geographic area and an application program type associated with each of the plurality of registered application programs.” For example: |

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| |  <br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B. |

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| |  <br>Fig. 8B<br>Chmaytelli ’453 at FIG. 8B. |

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| |  <br>Fig. 8C<br>Chmaytelli ’453 at FIG. 8C. |

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| |  <br>Fig. 9<br>Chmaytelli ’453 at FIG. 9.<br>“FIG. 1 illustrates a block diagram of one exemplary embodiment of a wireless system 100 in accordance with at least one embodiment of the invention. System 100 can contain client devices, such as cellular telephone 102, in communication across a wireless network 104 with at least one application download server 106 that selectively transmits software applications and components to wireless devices across a wireless communication portal or other data access to the wireless network 104. As shown here, the wireless (client) device can be a cellular telephone 102, a personal digital assistant 108, a pager 110, which is shown here as a two-way text pager, or even a separate computer platform 112 that has a wireless communication portal. The embodiments of the invention can thus be realized on any form of client device including a wireless communication portal or having wireless communication capabilities, including without limitation, wireless modems, PCMCIA cards, personal computers, access terminals, telephones, or any combination or sub-combination thereof.<br>The application download server 106 is shown here on a network 116 with other computer elements in communication with the wireless network 104. There can be a stand-alone server 122, and each server can provide separate services and processes to the client devices 102, 108, 110, 112 across the wireless network 104. There is preferably also at least one stored application database 118 that holds the software applications |

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| | that are downloadable by the wireless devices 102, 108, 110, 112. However, those skilled in the art will appreciate that the configuration illustrated in FIG. 1 is merely exemplary. Accordingly, embodiments of the invention can include one or more servers that can each perform all the described functions and contain all necessary hardware and software, or can contain only selected functionality.” Chmaytelli ’453 at [0032]–[0033].<br><br>“In FIG. 2, a block diagram is shown that more fully illustrates system 100, including the components of the wireless network 104 and interrelation of the elements of the exemplary embodiments of the invention. System 100 is merely exemplary and can include any system that allows remote client devices, such as wireless client computing devices 102, 108, 110, 112 to communicate over-the-air between and among each other and/or between and among components connected via a wireless network 104, including, without limitation, wireless network carriers and/or servers. The application download server 106 and the stored application database 118, along with any other servers such as ad dispatch server 130 which are used to provide cellular telecommunication services, communicate with a carrier network 200, through a data link, such as the Internet, a secure LAN, WAN, or other network. In the embodiment shown, a server 120 can include the application download server 106, ad dispatch server 130 and the stored application database 118. However, these servers can also be independent devices. The ad dispatch server 130 can provide additional ad services based on the configuration of each of the client devices 102, 108, 110, 112.<br><br>The carrier network 200 controls messages (typically sent as data packets) sent to a messaging service controller (“MSC”) 202. The carrier network 200 communicates with the MSC 202 by a network, the Internet and/or a public switched telephone network (PSTN). Typically, the network or Internet connection between the carrier network 200 and the MSC 202 transfers data, and the PSTN transfers voice information. The MSC 202 can be connected to multiple base stations (“BTS”) 204. In a similar manner to the carrier network, the MSC 202 is typically connected to the BTS 204 by a network, the Internet and/or PSTN for data transfer and/or voice information. The BTS 204 can broadcast data messages wirelessly to the client devices, such as cellular telephone 102, by short messaging service (‘SMS”), UDP datagrams, or other over-the-air (OTA) methods known in the art. The terms “API-direct”, “directed SMS” and “BREW-directed SMS” are used interchangeably in the following description to indicate an OTA message that includes coding to launch an application resident on the client device. Likewise, the terms “advertisement”, “ad”, “announcement”, and “message” are used interchangeably to indicate the information and/or instructions sent to a client device.<br><br>The client device, (here a wireless client computing device), such as cellular telephone 102, has a computer platform 206 that can receive and execute software applications and/or commands transmitted from the application download server 106, ad dispatch server 130 and/or server 120. The computer platform 206 can |

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| | include an application specific integrated circuit (“ASIC” 208), or other processor, microprocessor, logic circuit, or other data processing device. The ASIC 208 or other processor executes the application programming interface (“API’) 210 layer that interfaces with any resident programs in the memory 212 of the wireless device. The memory 212 can be comprised of read-only or random-access memory (RAM and ROM), EEPROM, flash cards, or any memory common to computer platforms. The API 210 also includes a Carrier Announcement Manager module (CAM) 310 containing logic configured to process special OTA (e.g., SMS) ads transmitted from the carrier network 200. The computer platform 206 also includes a local database 214 that can hold applications not actively used in memory 212. The local database 214 is typically a flash memory cell, but can be any secondary storage device as known in the art, such as magnetic media, EPROM, optical media, tape, soft or hard disk, or the like.<br><br>The wireless client computing device, such as cellular telephone 102, has installed on it, or otherwise downloads, one or more software applications, such as games, news, stock monitors, and the like. For example, the cellular telephone 102 may receive one or more software applications downloaded from the application download server 106. The software applications may be stored on the local database 214 when not in use. The cellular telephone 102 or other wireless computing device may upload resident applications stored on the local database 214 to memory 212 for execution on the API 210 when so desired by the user or invoked by another API.<br><br>As used herein “client device”, “wireless device” or “client computing device” includes, for example, one or more processing circuits executing resident configured logic, where such computing devices include, for example, microprocessors, digital signal processors (DSPs), microcontrollers, portable wireless telephones, personal digital assistants. (PDAs), and paging devices, or any suitable combination of hardware, software and/or firmware containing processors and logic configured to at least perform the operations described herein directed to ads communicated between a client device and a server. The client computing device can be serviced by at least one remote server with respect to at least such ads. Some examples of “wireless computing devices” which may be used in accordance with embodiments of the present invention include cellular telephones or other wireless communication units, PDAs, paging devices, navigation devices (e.g., GPS-based systems), handheld gaming devices, music or video content download units, and other like wireless communication devices.<br><br>The wireless communication between the client device 102 and the BTS 204 can be based on different technologies, such as code division multiplexed access (CDMA), time division multiplexed access (TDMA), frequency division multiplexed access (FDMA), the global system for mobile communications (GSM), or other protocols that may be used in a wireless communications network or a data communications network. |

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| | The data communication is typically between the client device 102, BTS 204, and MSC 202. The MSC 202 can be connected to multiple data networks such as the carrier network 200, PSTN, the Internet, a virtual private network, and the like, thus allowing the client device access to a broader communication network. As discussed in the foregoing, in addition to voice transmission, data can be transmitted to the client device via SMS or other OTA methods known in the art.<br><br>However, in addition to delivering basic messages, embodiments of the invention can utilize APIs to access the enhanced functionality of the client devices. Further, these API-directed SMS messages that allow access to underlying APIs can be separated from the conventional SMS messages and stored in a separate inbox to allow for the easy organization, storage, and retrieval of the relevant enhanced SMS messages. Accordingly, one aspect of embodiments of the invention includes a specialized API for managing these enhanced SMS messages, hereinafter referred to as a Carrier Announcement Manager (CAM).” Chmaytelli ’453 at [0034]–[0040].<br><br>“To send the ad to the client device, the CAM can rely on any of a number of push mechanisms that enable the device to receive messages. In one exemplary embodiment of the present invention, a directed SMS can be used as the push mechanism. For example, a BREW-directed SMS can include the class ID of a BREW application and the data that the application will be able to retrieve when it receives the SMS. The data sent in the SMS can contain the text to be displayed on the ad page and the ID of the application, which will be used, for example, to bring the end-user to a page where purchases can be made.<br><br>In another exemplary embodiment of the invention, a network connection to a server can be used as the push mechanism. The CAM in this embodiment can connect to the server automatically on a periodic basis (e.g., every five minutes) or when manually activated to check if there is a new ad. This embodiment can allow the direct download of richer ads that can incorporate graphics, text, hyperlinks, multimedia and the like.<br><br>In another exemplary embodiment of the invention, a combination of both directed SMS and a network connection can be used as the push mechanism. The directed SMS tells the CAM application to wake up and connect to a server (e.g., ad dispatch server). The application can then connect to the server and retrieve the detailed ad data, such as text, pictures, video, audio and/or application ID.” Chmaytelli ’453 at [0062]–[0064].<br><br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the |

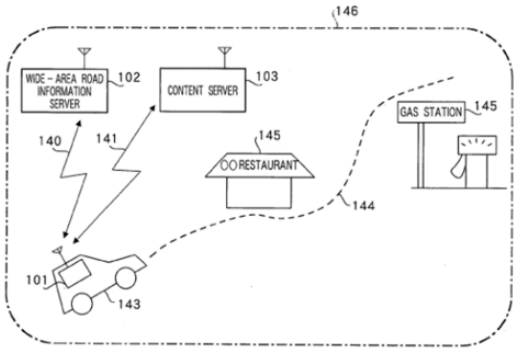
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| | position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely. |

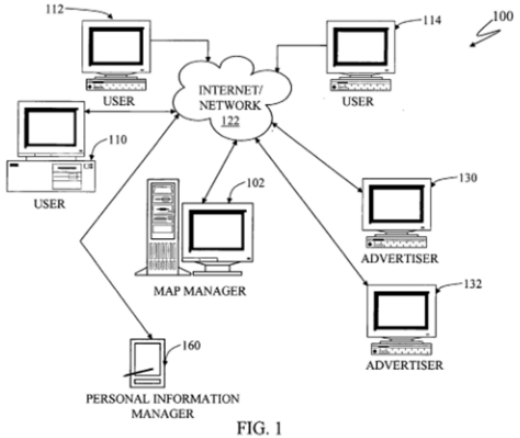
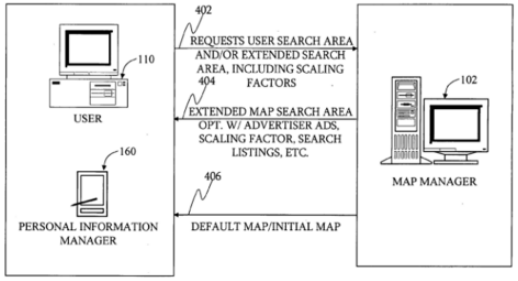
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| | The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client |

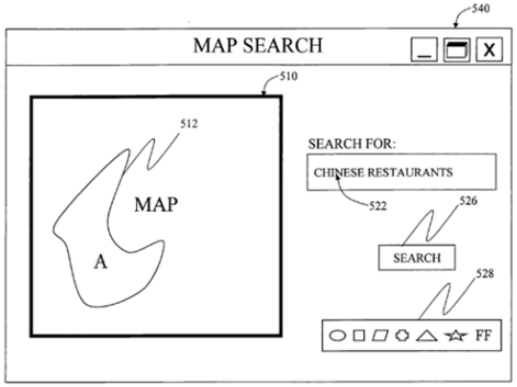
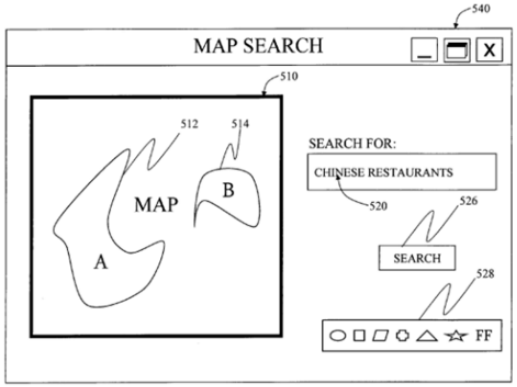
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| | device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br><br>“As shown in FIG. 1, the Web server 24 includes, for example, an APL member registration unit 31, an APL downloading unit 32, an APL particular service providing unit 33, an advertisement-member registration unit 34, an advertisement selecting unit 35, and a control unit 36. The APL member registration unit 31 performs member registration before an application program APL is downloaded, which will be described later. The |

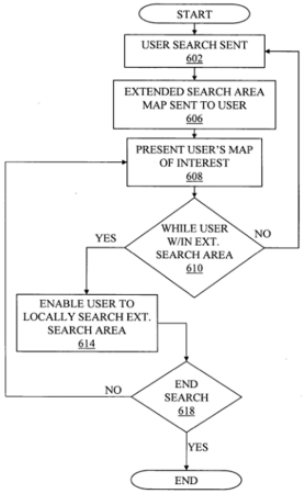
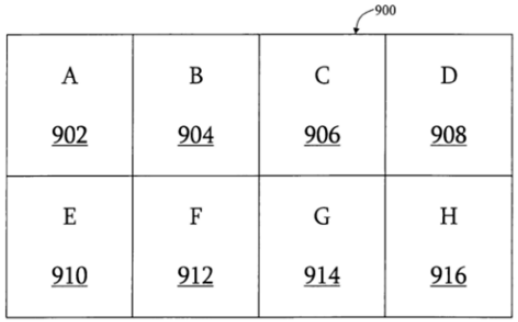
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| | APL downloading unit 32 downloads the above-mentioned application program APL.” Kinoshita ’866 at [0041].<br><br>“The APL particular-service providing unit 33 provides services such as content selling service, shop searching service, and photo printing service by using the application program APL.” Kinoshita ’866 at [0042].<br><br>“The cellular phone 12-1 accesses the Web server 24 by using the URL received in the step ST12 and downloads an application program APL. The cellular phone 12-1 transfers the application program APL to the memory 58 of FIG. 2. The application program APL includes a default advertisement video. In the present embodiment, the default advertisement video has no digital content data. In the present embodiment, the number of videos included in the cellular phones 12-1 and 12-2 is not limited.” Kinoshita ’866 at [0093].<br><br>“When a user receives a particular service from the service device 14 by using the cellular phone 12-1, the processing circuit 59 reads out the application program APL from the memory 58 and starts it. Staring the application program APL, the processing circuit 59 reads out an advertisement video from the memory 58 and plays it on the display 54.” Kinoshita ’866 at [0094].<br><br>“The cellular phone 12-1 communicates with the service device 14 via the R/W device 16 by using the function of the application program APL. At this time, the cellular phone 12-1 transfers attribute data and a list of advertisement videos and digital content data, which are stored in the memory 58 of FIG. 2, to the service device 14, as well as given service requests. The service device 14 transfers the above things received from the cellular phone 12-1 to the memory 68 of FIG. 3. The attribute data includes, for example, user's age, gender, and preferences.” Kinoshita ’866 at [0096].<br><br>“The cellular phone 12-1 transfers a member registration request to the Web server 24 in order to use digital content data associated with an advertisement video.” Kinoshita ’866 at [0117].<br><br>“The Web server 24 performs the member registration of the user or his cellular phone 12-1 according to the member registration request sent from the cellular phone 12-1.” Kinoshita ’866 at [0119].<br><br>“In this registration process, the cellular phone 12-1 transfers data such as age, gender, preference, and local information to the Web server 24 to register them.” Kinoshita ’866 at [0119].<br><br>“A user's friend, who is not in a shop, sends a member registration request to the web server 24 by using his cellular phone 12-2 in order to use an application program APL. If the cellular phone 12-2 has already downloaded the application program APL, the present process is not necessary.” Kinoshita ’866 at [0123]. |

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| | “The Web server 24 performs member registration according to the above member registration request and uploads the application program APL to the cellular phone 12-2. The cellular phone 12-2 transfers the application program APL to the memory 58 of the FIG. 2.” Kinoshita ’866 at [0125].<br><br>“A user of the cellular phone 12-2 transfers a member registration request to the Web server 24 in order to use the digital video data received in the step ST 25.” Kinoshita ’866 at [0131].<br><br>“The Web server 24 performs member registration of the cellular phone 12-2 or its user according to the request from the cellular phone 12-2.” Kinoshita ’866 at [0133].<br><br>*See also* Kinoshita ’866 at Fig. 1, Fig. 2, Fig. 3, Fig. 4, Fig. 5, Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, Fig. 11, Fig. 12, [0011], [0043], [0091], and [0109].<br><br>“Data communicated to the receiver component 102 from a user generally is associated with a particular entity or object (e.g., building, landscape, house, street corner, landmark, . . . ) or a specific geographic location (address, geographic coordinates).” Smith ’558 at [0069].<br><br>“Other information can be provided from commercial organizations, such as shopping malls that upload mall layout information and individual stores that provide information about sales or other relevant data. It should be noted that this information can be collected worldwide and the data associated with the disclosed embodiments is not limited to one area or country. Additionally or alternatively, the information relating to the businesses can be presented to the user based on the user's actual location or based on a mapping area viewed by the user. In such a manner, a user can receive business information for a geographic region of interest to the user (e.g., planning a vacation or business trip).” Smith ’558 at [0079].<br><br>“Overwrite component 604 might further be configured to modify map features based on advertiser information 610. Advertisers can purchase advertisements in the display space utilizing a per diem scheme, a click through scheme, any other scheme or combination of schemes. Advertisements can also be purchased based on geographic location. Such geographic location can be the actual physical location of the user or alternatively can be the geographic area that the user is viewing, which may not be the same as the physical location of the user.” Smith ’558 at [0117].<br><br>“With reference now to FIG. 36, illustrated is a system 3600 that facilitates on-line or real-time advertising and can also be referred to as geo-diluted advertising. Geo-diluted advertising is geared toward commercial establishments or others that desire to advertise using the map features and associated geographic area(s), |

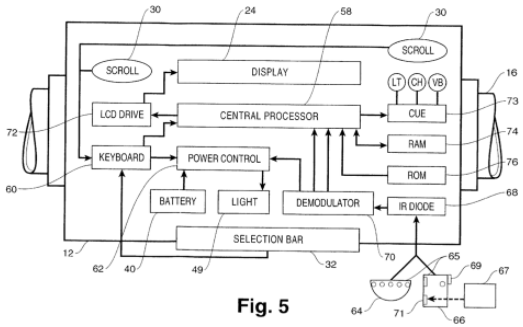
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| | which might be at an extreme the entire world or more focused, such as two city blocks.” Smith ’558 at [0236].<br><br>“An advertiser may want to advertise in a specific area and is willing to spend a particular amount of money (e.g., $2.00, $4.00, $10.00, . . . ) per click-through by a user, for example. A coverage component 3602 can be a tool or wizard that creates a layer for the desired geography. The coverage component 3602 receives information relating to advertisement coverage desired by advertisers for a particular geographic location or area 3604.” Smith ’558 at [0236].<br><br>  <br>FIG. 1<br>Sato ’965 at Fig. 1.<br><br>““Position” field 202 stores a position inside region 146 (see FIG. 1) to which is related the content expressed by content data 152.” Sato ’965 at [0079].<br><br>“In the example as shown in FIG. 3, the position inside region 146 is represented by the latitude and longitude. In addition, a mode for representing a position inside region 146 is not limited to the foregoing. Further, a position inside region 146 to which content is related is called a “content position” in this specification.” Sato ’965 at [0080].<br><br>“The content of content data 152 is displayed in region 1108. In the example as shown in FIG. 20, content data 152 is advertising information of a restaurant.” Sato ’965 at [0240].<br><br>*See also* Sato ’965 at Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, [0054], and [0284]. |

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| |  <br>FIG. 1<br>Ahn ’281 at Fig. 1.<br>  <br>FIG. 4<br>Ahn ’281 at Fig. 4. |

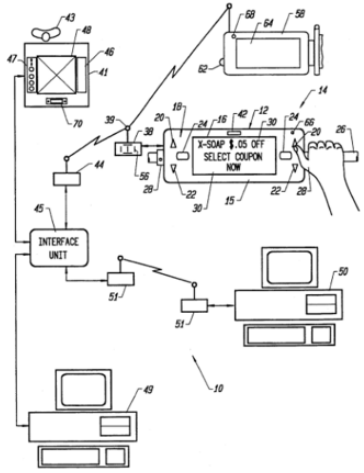
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| |  <br>FIG. 5C<br>Ahn ’281 at Fig. 5C.<br>  <br>FIG. 5D<br>Ahn ’281 at Fig. 5D. |

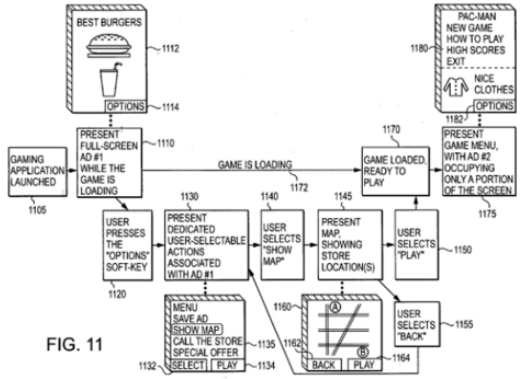
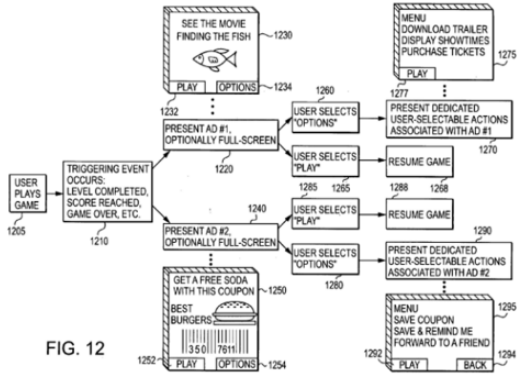
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| |  <br>FIG. 6<br>Ahn ’281 at Fig. 6.<br>  <br>FIG. 9<br>Ahn ’281 at Fig. 9. |

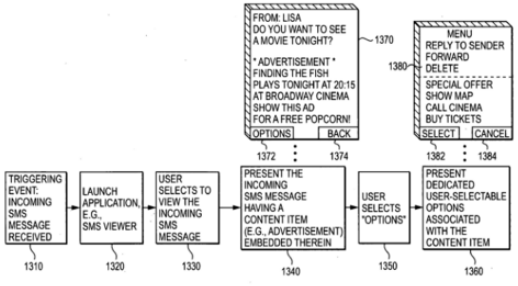
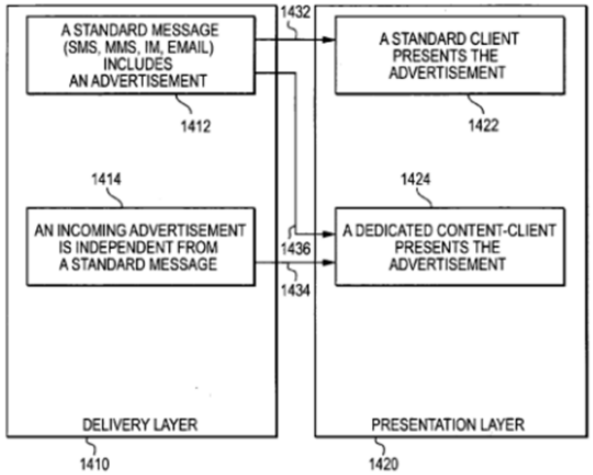
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| | “In addition to the extended map sent back to the user, map-advertising information is also sent back in accordance with an embodiment of the invention. The map-advertising information is a set of information that generally is used by the local map handler 302 to decide which set of advertisements is presented to the user.” Ahn ’281 at [0055].<br><br>“FIG. 10 is an example flowchart of a method by which the advertising feature of the present invention is provided, according to an embodiment of the invention. In the first operation, an advertising scheme is defined which is based on the association of advertising regions of a map to advertisements (step 1002). Next, the map presented to the user and, optionally, the cursor position, (step 1004) is used to determine the one or more advertisements to be displayed or presented to the user (step 1006). Marketing-related information, such as the advertisements presented and whether there was a click through, and other information are captured and stored (step 1014). This is captured on the client device 110 and alternatively also sent to the map manager 102 (step 1020). This marketing-related information may be used to help in soliciting more advertising revenues or to tailor the advertising scheme to obtain a better stream of revenue.” Ahn ’281 at [0095].<br><br>“The geographic information knowledge (GIK) systems of an embodiment include a method for managing geographically referenced data (GRD). The method of an embodiment includes receiving a search request that includes a defined search area. The method of an embodiment includes providing an extended map based on the search request. The extended map includes geographic areas within the defined search area and outside the defined search area. The method of an embodiment includes providing the GRD. The GRD includes one or more of advertisements, contact information, and review information for one or more entities. The method of an embodiment includes providing map reference information of the GRD on the extended map.” Ahn ’281 at [0178].<br><br>“The GIK systems of an embodiment include computer readable medium including executable instructions which, when executed in a processing system, manage geographically referenced data (GRD), by receiving a search request that includes a defined search area. The computer readable medium of an embodiment provides an extended map based on the search request. The extended map of an embodiment includes geographic areas within the defined search area and outside the defined search area. The computer readable medium of an embodiment provides the GRD. The GRD includes one or more of advertisements, contact information, and review information for one or more entities. The computer readable medium of an embodiment provides map reference information of the GRD on the extended map.” Ahn ’281 at [0205]. |

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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“Since the point of purchase promotion is most effective when the customer is at ground zero, that is, proximate the shelf location of the promoted item, the graphic must be transmitted, received and formatted for display in the brief time that the shopper is strolling past the promoted item.” Begum ’880 at 4:33–38.<br>“The infrared or radio frequency receiver in the handle, used for an alarm when the cart or handle leaves a prescribed area, also be used to receive an advertisement signal by appropriate programming as described.” Begum ’880 at 4:59–63.<br>“The user interface is designed to allow the user to access all of the available data including stored promotional graphics by a control system that is intuitive. Furthermore, the hybrid system devised for automatic display of promotional graphics, is designed to incorporate features that are beneficial in facilitating automatic update of the promotional advertisements.” Begum ’880 at 4:65–5:4.<br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power |

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| | transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47.<br><br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>*See also* Begum ’880 at 1:60–2:5, 5:65–6:4, 6:18–37, 9:12–16, 9:16–29, 9:56–65, 10:16–31, and 10:41–51. |

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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“In the preferred embodiment, the communication units are primarily portable and communicate with the coupon interface modules via wireless data transmissions. Furthermore, the discount coupons are preferably activated when the shopper is in the market area proximate the location of the discounted items. In this situation, a local message sending unit proximate the location of the item activates the display of the coupon graphic on the display screen of the communication unit carried by the shopper or mounted on the shopper's cart. ” Begum ’606 at 3:4–14.<br>“In addition to the remote loading and discontinuance, the use of a transceiver enables the display of coupons to be generated proximate the store location of the item that is the subject of the coupon. ” Begum ’606 at 5:56–59.<br>“Each message sending unit 58 is locationally identified and loaded with locationally specific data by the storewide systems controller 50 that remotely transmits storewide transmission signals. In this embodiment, the product control data accompanying the coupon display data includes the identity, hence location, of the transmitting message sending unit 58. T” Begum ’606 at 5:63–6:2. |

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| |  <br>Levkovitz ’852 at Fig. 11.<br>  <br>Levkovitz ’852 at Fig. 12. |

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| |  <br>FIG. 13<br>Levkovitz ’852 at Fig. 13.<br>  <br>FIG. 14<br>Levkovitz ’852 at Fig. 14.<br>“In some embodiments, previously-prepared applications, e.g., utilities or games for mobile phones, may be configured or adapted to include or embed a content client, e.g., using a Software Development Kit (SDK) or a Close Class.” Levkovitz ’852 at [0006]. |

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| | “ In some embodiments, for example, the application-initiated content request may include a data item selected, e.g., taking into account the capabilities of the device, from a group consisting of: a data item representing an available memory of the wireless communication device, a data item representing an audio capability of the wireless communication device, a data item representing a video capability of the wireless communication device, a data item representing a screen size of the wireless communication device, a data item representing a content item type that the wireless communication device is able to present, and a data item representing a location of the wireless communication device.” Levkovitz ’852 at [0010].<br><br>“In some embodiments, for example, the plurality of content items may include at least a first version of the content item adapted for presentation using a first type of wireless communication device, and a second version of the content item adapted for presentation using a second type of wireless communication device.” Levkovitz ’852 at [0030].<br><br>“In some embodiments, for example, the message may include a message selected from a group consisting of: a Short Message Service (SMS) message, a Multimedia Messaging Service (MMS) message, an Instant Messaging (IM) message, and an Electronic Mail (Email) message.” Levkovitz ’852 at [0039].<br><br>“In some embodiments, for example, the modifier is to select the advertisement based on a location of the second wireless communication device.” Levkovitz ’852 at [0045].<br><br>“ In some embodiments, for example, a wireless communication device may include a wireless communication device to receive an advertisement selected in response to an application-initiated content request, to present the advertisement in a context of an application running on the wireless communication device, and to present one or more user-selectable operations selectively associated with the advertisement. The application may be, for example, a gaming application, a utility application, or the like.” Levkovitz ’852 at [0069].<br><br>“In accordance with some embodiments of the invention, device 170 may include an application 176 having a content client 174. The application 176 may be; for example, a game or a software application.” Levkovitz ’852 at [0095].<br><br>“The content client 174 may be a module of application 176, a plug-in of application 176, or an external module operatively associated application 176. Content client 174 may be able to send a wireless signal indicating a request (“content request”) to receive one or more content items, e.g., textual content, audio content, video content, advertisement, informational items, or the like. The content request may include, for example, data indicating properties of device 170, e.g., handset manufacturer, handset model, screen |

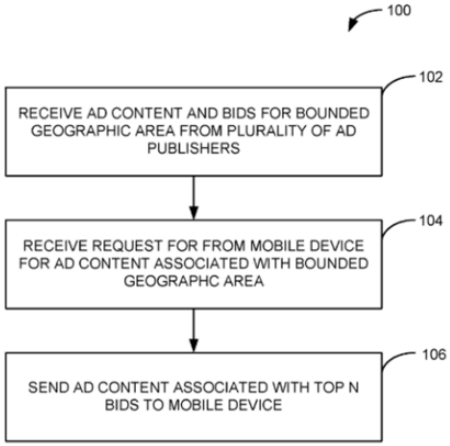
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| | resolution, screen color depth, audio capabilities, total memory, available memory, types of content items which the device 170 is capable to present, or the like; data indicating properties of the user of device 170, e.g., age, age group, gender, occupation, profession, areas of interest, income, usage habits, usage patterns, usage time, or the like; and/or other suitable information, e.g., data indicating the type of application associated with application 176, data identifying application 176, or the like.” Levkovitz ’852 at [0095].<br><br>“ In some embodiments, ad servers 150 may include multiple servers which may be shared among multiple campaigns or may be dedicated for a specific campaign or type of operation. For example, in one embodiment, a first ad server. 150 may serve content items directed for presentation using a first application 176 (e.g., a chess game), whereas a second ad server 150 may serve content items directed for presentation using a second application 176 (e.g., a racing game). In another embodiment, a first ad server 150 may serve content items directed for presentation using a first type of applications 176 (e.g., games), whereas a second ad server 150 may serve content items directed for presentation using a second type of applications 176 (e.g., utility applications). In yet another embodiment, a first ad server 150 may serve content items of a first type (e.g., images in JPG format, images having a first file size, or the like), whereas a second ad server 150 may serve content items of a second type (e.g., images in GIF format, images having a second file size, or the like). In still another embodiment, a first ad server 150 may serve content items for SMS-related applications, a second ad server 150 may serve content items for MMS-related applications, a third ad server 150 may serve content items for IM-related applications, a fourth ad server 150 may serve content items for Email-related applications, and a fifth ad server 150 may serve content items for other types of applications. In some embodiments, a single ad server 150 may serve content items to multiple applications (e.g., SMS-related applications and/or MMS-related applications and/or IM-related applications and/or Email-related applications, or a combination of some of these applications). Other suitable combinations and configurations may be used. In another embodiment, a first ad server 150 may be dedicated to serve content items associated with a first advertiser, whereas a second ad server may be dedicated to serve content items associated with a second advertiser or with a group of multiple advertisers. Other suitable configurations may be used.” Levkovitz ’852 at [0099].<br><br>“A content adapter 137 of management server 140 may create multiple versions of content item, for example, having various dimensions, various color depth, various sizes in bytes, various file formats (e.g., JPG, GIF, TIF, BMP, AVI, MPG, MOV, TXT, or the like), various codec sets, or differing in other properties. In one embodiment, for example, content items may have multiple versions corresponding to a descriptive property of device 170, e.g., a full-size content item which may fill the entire screen of device 170, a half-screen size content item which may occupy approximately one half of the screen of device 170, a quarter-screen size |

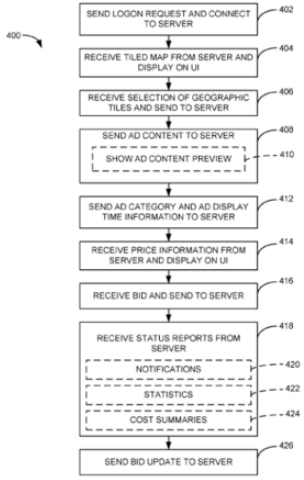
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| | content item which may include a square-shaped or rectangular content item which may occupy approximately one quarter of the screen of device 170, or the like. ” Levkovitz ’852 at [0105].<br><br>“ Inventory manager 133 may estimate or predict usage of content items inventory, and may be used to categorize inventory content items. For example, a gaming content item may be added to an inventory list, stored in database 140, and categorized according to various criteria, e.g., game type, relevant ad types, or the like.” Levkovitz ’852 at [0109].<br><br>“ In some embodiments, a first ad server 110 may be assigned to serve a first content item or a first group of content items (e.g., associated with a first advertiser, or having a first type or size), and a second, different ad server 110 may be assigned to serve a second content item or a second group of content items (e.g., associated with a second advertiser, or having a second type or size).” Levkovitz ’852 at [0120].<br><br>“For example, ad selector 113 may determine that the content request originates from device 170 associated with user who is a 22 year old male student who lives in London and is interested in sports, and may select content items intended to be presented to such user, e.g., an advertisement of a sporting event in London.” Levkovitz ’852 at [0131].<br><br>“In accordance with some embodiments of the invention, device 170 may include application 176 having a content client 174. The application 176 may be, for example, a game or a software application. The content client 174 may be a module of application 170, a plug-in of application 170, or an external module operatively associated application 170. Content client 174 may be able to send a wireless signal indicating a request (“content request”) to receive one or more content items, e.g., textual content, audio content, video content, advertisement, informational items, or the like. The content request may be transmitted to communicator 150, for example, using communication handler 173. In one embodiment, transmission of the content request may be triggered by a user command or a user command, e.g., a signal entered by a user utilizing the input unit 186 and indicating that the user requests one or more content items.” Levkovitz ’852 at [0155].<br><br>“A fifth presentation rule may require, for example, that a certain content item, e.g., an advertisement for a certain shop, be presented when device 170 is geographically located within a pre-defined distance (e.g., 300 meters) of the address of that shop.” Levkovitz ’852 at [0159].<br><br>“System 100 may optionally include other suitable components, for example, an MMS Center (MMSC) 161, an SMS interceptor 162, an SMS gateway 163, an Instant Messaging (IM) server 166, an Email server 167, and/or other servers or components (e.g., touters, switches, gateways, proxies, or the like) which may be |

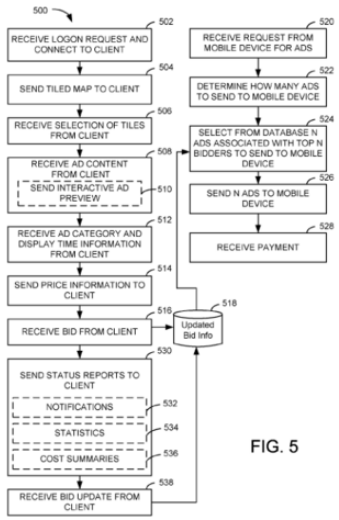
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| | operatively associated with communicator 150 and/or ad server 110, and may be used to send and/or receive SMS items and/or MMS items and/or IM items and/or Email items having embedded therein a content item served by ad server 110. For example, in one embodiment, a first wireless communication device 170 may send a SMS or MMS or IM or Email message intended to be received by a second wireless communication device 170; system 100 may intercept the message, and may modify the message, e.g., by adding, inserting, augmenting, appending or embedding into the message a content item stored in ad server 110; and the modified SMS or MMS or IM or Email message may be transmitted to the second wireless communication device 170. In one embodiment, for example, the appended content item may be an selected advertisement which may be added to a user-created SMS or MMS or IM or Email, for example, thereby reducing the cost or price that the sending user and/or the receiving user are required to pay to their service provider(s) in order to send or receive the SMS or MMS or IM or Email message.” Levkovitz ’852 at [0170].<br><br>“In some embodiments, optionally, a content item may be selectively inserted into, or appended to, a SMS or MMS or TM or Email message or other message (e.g., textual message, audio clip, video clip, image, or the like) sent by a first user to a second user. The content item may be selected, for example, based on properties of the sending user and/or based on properties of the receiving party. Additionally or alternatively, in one embodiment, the content item may be selected based on an analysis (e.g., textual analysis, keyword analysis, image recognition analysis, sound recognition analysis, or the like) of the content item; for example, if the sending user sends a textual SMS item containing the word “chocolate” or “love”, then a content item having an advertisement for a chocolate product or a flowers delivery service may be selectively added to the SMS item. Other suitable criteria may be used to selectively serve content items.” Levkovitz ’852 at [0171].<br><br>“In some embodiments, optionally, local repository 172 may be shared by multiple applications 176 within device 170. For example, a first application 176 may include a first game, and a second application 176 may include a second game. Device 170 may include the first and second applications 176, having embedded therein first and second content clients 174, respectively. Local repository 172 may optionally be shared by the first and second applications 170 and/or by the first and second content clients 174 of device 170. For example, the first application 176 may be executed and may transmit a content request; in response, multiple content items may be received by receiver 192 and may be stored in local repository 171; one or more content items may be presented by the first application 176. Then, the second application 176 may be executed, and may utilize, e.g., may present, one or more content items which may already be stored in local repository 176. In another embodiment, multiple separate caches or multiple separate local repositories 171 may be used by multiple applications 176 of device 170. In some embodiments, optionally, the second application 176 may |

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| | report to communicator 150 about presentation performed by the second application and/or the first application, or vice versa Other suitable configurations may be used.” Levkovitz ’852 at [0176].<br><br>“The SMSC 311 may utilize a Home Location Register (HLR) 313 to determine (e.g., using interrogation) whether recipient device 302 is active, and/or to determine the roaming location of recipient device 302; and may deliver the modified SMS message to recipient device 302, e.g., optionally utilizing a Mobile Switching Center (MSC) 312.” Levkovitz ’852 at [0195].<br><br>“In some embodiments, the system may map SMS/MMS/IM/Email context text to keywords. For example, a user may create and send a textual message “How about we see The Last Samurai tonight?”. Based on textual analysis, and/or identification of the phrase “The Last Samurai”, the system may map the textual message to a “movies” category, and/or to an “action movies” sub-category, thereby selecting advertisement that are related to this category or sub-category. Additionally or alternatively, based on identification of the word “tonight”, the advertisement selection process may be further fined-tuned, e.g., to select an advertisement for an action movie which is expected to play tonight (e.g., in the night-time of the current date), optionally in the geographical region in which the user is currently located and/or in the geographical region in which the user resides (e.g., based on subscriber's personal information). For example, the user may be presented with the message, or the original message may be modified to include the message, “See this movie tonight at 19:30 at the Paragon Theater in Times Square”. Optionally, the embedded message may include a reward or an incentive for the user, e.g., to act on the presented message, for example, by adding the message “Get free popcorn”.” Levkovitz ’852 at [0223].<br><br>“Device 1070 may further include a content items browser 1098, for example, a software (e.g., embedded or non-embedded) client application allowing the user to selectively browse and/or view (e.g., present) one or more content items that are stored in content repository 1099, for example, to browse and/or view incoming commercial content item/advertisement/SMS/MMS/IM/Email messages (or portions thereof) that are stored in content repository 1099. In some embodiments, the content items browser 1098 may operate while device 1070 is online and/or while device 1070 is offline, e.g., may allow a user to selectively browse and/or view stored content items without dependence on the operational status or location of device 1070. Content items browser 1098 may further allow the user, for example, to selectively delete one or more content items stored in content repository. Content items browser 1098 may further allow the user, for example, to selectively send (e.g., forward) to another wireless communication device one or more content items stored in content repository.” Levkovitz ’852 at [0262]. |

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| | “In some embodiments, user-selectable operations may be associated with an incoming content item based on one or more properties or characteristics, for example, of the device 1070 and/or its user, and/or other data or parameters (e.g., date, time, location, or the like).” Levkovitz ’852 at [0272].<br><br>“a fourth user-selectable operation may be available only when the user or the device 1070 meets certain conditions, e.g., if the device 1070 is within a certain location (e.g., in proximity to a certain restaurant)” Levkovitz ’852 at [0272].<br><br>“For example, a first user-selectable action associated with a first incoming content item, may be available only during a certain time and/or while the recipient device is within a certain geographical location.” Levkovitz ’852 at [0273].<br><br>“As indicated at box 1105, a user may operate the wireless communication device to launch an application, for example, a gaming application.<br><br>As indicated at box 1110, while the gaming application is loading, the wireless communication device may present a first advertisement, for example, a substantially full-screen advertisement or an advertisement occupying more than 80 percent or more than 90 percent of the available screen size. ” Levkovitz ’852 at [0277]–[0278].<br><br>“As indicated at box 1170, the game may be loaded and may be ready for playing by the user. As indicated by arrow 1172, the operations of boxes 1120, 1130, 1140, 1145, 1150 and 1155 may be performed substantially in parallel to the loading process of the gaming application, and may not stop or delay the loading process.” Levkovitz ’852 at [0285].<br><br>“ In some embodiments, for example, if the loading of the gaming application is completed while the user views a presented advertisement, or while the user views a menu of options, the gaming application may wait for the user to select that the user wishes to resume the gaming application and play, and the gaming application need not interrupt the user. In other embodiments, for example, if the loading of the gaming application is completed while the user views a presented advertisement, e.g., if the user does not actively select an option associated with the advertisement but rather views the advertisement passively, then the gaming application may automatically begin. In one embodiment, even if the loading of the application is completed, the gaming application may utilize a delay period before it begins, e.g., to allow a minimum viewing time (e.g., five seconds) of the presented advertisement.” Levkovitz ’852 at [0286].<br><br>“As indicated at box 1175, once the gaming application begins, for example, a game menu may be presented. For example, box 1180 shows a demonstrative screen-shot of the presented game menu. The game menu may |

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| | include game-related options (e.g., start a new game, view high scores table, read instructions how to play the game, exit the gaming application, or the like). The screen-shot of box 1180 may optionally include a second advertisement, which may occupy only a portion of the screen of the wireless communication device, e.g., approximately 50 percent of the available screen of the wireless communication device. Optionally, a user-selectable “options” action 1182 may be included, for example, to allow presentation of one or more additional user-selectable actions that the user may perform in relation to or in connection with the second advertisement.” Levkovitz ’852 at [0287].<br><br>*See also* Levkovitz ’852 at [0026].<br><br>“As shown in FIG. 5, one embodiment of a method of facilitating wireless mobile e-commerce constructed in accordance with the present invention starts as indicated at step 501, and permits users to designate user preferences in a data storage (e.g., having one or more databases 14) associated with a server 10 having a program product, as depicted at step 503. ” Sanctis ’837 at [0112].<br><br>*See also* Sanctis ’837 at [0040] and [0044].<br><br>  <br>FIG. 1<br>Bussmann ’294 at FIG. 1. |

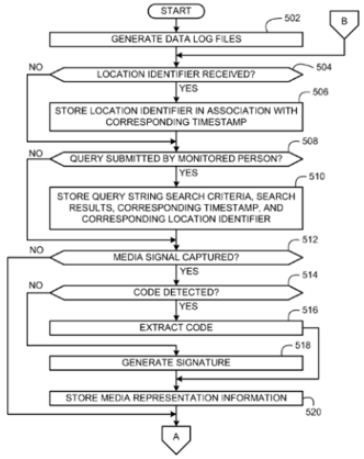
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| |  <br>FIG. 4<br>Bussmann ’294 at FIG. 4. |

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| |  <br>FIG. 5<br>Bussmann ’294 at FIG 5.<br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. |

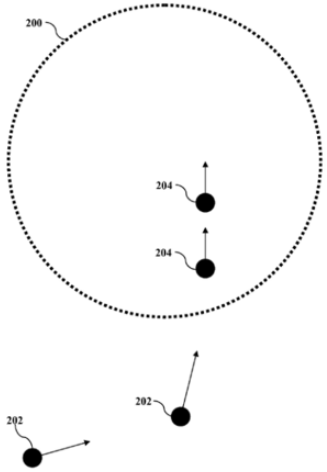
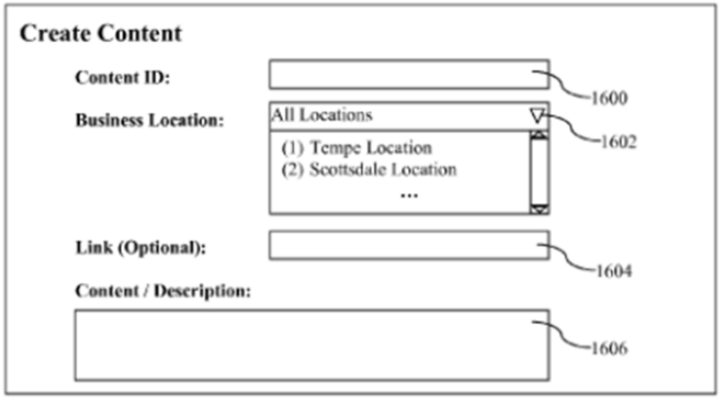
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| | Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“Upon receipt of such a map, an advertising publisher computing device 204 may receive an input of a selection of one or more tiles in which the publisher wishes to have its advertising content distributed, and then send the selection to the advertising server along with the item or items of advertising content the publisher wishes to distribute. The advertising publisher computing device 204 also may send other advertising information, such as advertising category information and desired advertising times, to the advertising server 202. This information is collectively referred to as “ad info” in FIG. 2. Upon receipt of this information, the advertising server 202 may provide pricing information to the advertising publisher computing device 204. In some embodiments, the pricing information may comprise a “future price”, as opposed to the current price reflected by the map, and may be determined by a highest existing bid or bids for each selected tile over the requested time interval in light of the category information provided by the advertising publisher. In some embodiments, the total price for a multi-tile area may be lower than a sum of the highest bids for each requested tile for the requested time interval, while in other embodiments, the price for a multi-tile area may have any other suitable relationship to the sum of the individual tile pricings. As described below, the pricing information may be continuously updated as bids are received from various users and demand for the tiles increases or decreases. Further, where no bids have been made on a selected tile, the pricing information may comprise a preselected minimum price for a tile.” Bussmann ’294 at [0017].<br><br>“Continuing with FIG. 2, the advertising server 202 is also configured to provide advertising content to devices 210, 212, 214 that request content for specified locations. When requesting advertising content, a device (such as device 210) sends information regarding its geographic location to the advertising server 202. The device 210 also may send other information. For example, the device 210 may send information |

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| | regarding its type, manufacturer and/or model identity. Such information may allow the advertising server 202 to select items of advertising content intended for that type of device. The device 210 also may send information regarding a current zoom level at which the display on the device is currently being viewed. Such information may allow the advertising server to select items of advertising content configured to trigger at the specified level of zoom, and/or to determine how many items of advertising content can be viewed at one time on the device display and therefore to select how many advertising content items to send to the device.” Bussmann ’294 at [0023].<br><br>“Next, method 400 comprises, at 404, receiving a tiled map from the server and displaying the tiled map on a graphical user interface, wherein the tiled map shows an N-dimensional view of a geographic region divided into one or more tiles. In this manner, an advertising publisher may select tiles corresponding to geographic areas in which (or in connection with which) the publisher wishes to have an item of advertising content displayed. As described above, each tile may have any suitable shape and size. For example, dense urban areas may be divided into more tiles than less dense rural areas. Further, each tile may have a size and shape similar to the other tiles, or one or more tiles may have different sizes and shapes compared to the other tiles. In some embodiments, the tiles may have arbitrary polygonal (or polycurved, etc.) shapes that do not correspond to geographic features of the region represented by the map. In other embodiments, the tiles may have boundaries that follow geographic features of the region represented by the map. Further, the map may be displayed in colors or other visual indicators of the relative demand and/or cost of each tile displayed.” Bussmann ’294 at [0026].<br><br>“Method 400 next comprises, at 406, receiving a selection of tiles from a user via the graphical user interface, and then sending the selection of tiles to the advertising server. In addition to the selection of tiles, advertising content for the selection of tiles also may be sent to the advertising server, as indicated at 408. In some embodiments, as indicated at 410, the advertising content may then be viewed in a preview feature offered by the advertising content server. Such a preview may allow an advertising publisher to view a representation of how advertising content may appear to users of different types of devices, at different levels of zoom and/or panning, etc. In this manner, an advertising publisher may use the preview process as an aid to developing effective advertising content for specific devices, locations, etc.” Bussmann ’294 at [0027].<br><br>“Continuing with the figures, FIG. 5 shows a method 500 of operating an advertising server. Method 500 illustrates various details of method 400 from the advertising server's point of view, where communications with an advertising publisher client are shown in a left-hand side of the figure and communications with a device are shown in a right-hand side of the figure. Method 500 first comprises, at 502, receiving a logon request from an advertising publisher client, and connecting to the client. Next, at 504, a tiled map is sent to |

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| | the client to allow the advertising publisher to select tiles in which it is interested in having its advertising content distributed.<br><br>After sending the tiled map, a selection of tiles on the map is received from the client at 506, and advertising content is received from the client at 508. As described above, in some embodiments, an advertising server may be configured to allow an advertising publisher to view a preview of advertising content in the tiles selected by the advertising publisher. Therefore, method 500 comprises, at 510, sending an advertising content preview to the client. In some embodiments, the advertising content preview may be an interactive preview configured to allow an advertising publisher to view an item of advertising content on different types of devices, at different levels of zoom, panning, etc. to see how the item of advertising content will appear to a user in various specific geographic locations. In this manner, an advertising publisher may be able to tailor an appearance of an item of advertising content to a desired appearance in a specific device and/or location.<br><br>Method 500 next comprises, at 512, receiving advertising category and advertising display time information from the client. Examples of category and display time information are discussed in detail above. While the depicted embodiment shows the category and time information appearing in a later step than the receipt of the ad content and selection of tiles, it will be understood that these items may be received in any suitable order.<br><br>Upon receipt of the selection of tiles, ad content, and category and time information, method 500 comprises, at 514, sending price information to the client, and then at 516, receiving a bid from a client. The bid is then stored in an updated bid information database, as indicated at 518. It will be understood that processes 502-518 may be performed by a plurality of different publishers on a continuous, rolling basis as clients wish to submit bid information. Further, the advertising server also may interact with requesting devices on a continuous, rolling basis to provide items of advertising content to the devices. An example of a transaction with a device such as a PND or the like is shown in FIG. 5 at 520-526. First, at 520, method 500 comprises receiving from a device a request for advertising content. Upon receipt of this request, it is determined, at 522, a number N of items of advertising content to send to the device. The number N of items of advertising content may vary depending upon a number of factors, including but not limited to, a type/brand/model of device that sent the request, a current level of zoom currently shown on the device display, and/or whether any advertising publishers have paid for exclusive advertising rights to a tile that is within the relevant geographic area.” Bussmann ’294 at [0035]–[0038]. |

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| |  <br>FIG. 5A<br>Mello ’479 at FIG. 5A.<br>“After the web event data collector 166 stores the query string search criteria and associated information (block 510) or if the web event data collector 166 determines that a query has not been submitted (block 508), the media capture data collector 168 (FIG. 3) determines whether a media signal (e.g., an audio signal, a video signal, an RF signal, etc.) has been captured (block 512). For example, the media signal may be an audio signal associated with an advertisement presented by the audio device 16 or the video device 18 (FIG. 1), a video signal presented by the video device 18 (FIG. 1), or an RF signal emitted by the RF transceiver 22 of the billboard 20 (FIG. 1).<br>The media capture data collector 168 then determines whether the captured media signal includes a code (block 514). If the captured media signal includes a code, the media capture data collector 168 extracts (or creates a copy of) the code (block 516). If the captured media signal does not include a code (block 514), the media capture data collector 168 generates a signature of the captured media signal (block 518). Alternatively, a signature can always be collected regardless of whether a code was collected. After the media capture data collector 168 extracts a code (block 516) and/or generates a signature (block 518), the media |

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| | capture data collector 168 stores the media representation information (e.g., the code and/or the signature) (block 520) in the media data log file 184 (FIG. 3).<br><br>After the media capture data collector 168 stores the media representation information (block 520) or if the media capture data collector 168 determines that a media signal has not been captured (block 512), the consumer purchase data collector 170 determines whether any input data relating to potential purchases have been received (block 522) (FIG. 5B). In the illustrated example, the potential purchase data is data indicative of a product or a service such as, for example, bar code information read using the bar code reader 136 (FIG. 2) or RFID information received via the RF transceiver 134 (FIG. 2) in response to the monitored person 32 scanning a product or a service document. If the consumer purchase data collector 170 determines that potential purchase data has been received (block 522), the consumer purchase data collector 170 determines whether the monitored person 32 purchased the product or service corresponding to the received potential purchase data (block 524). For example, the consumer purchase data collector 170 may receive subsequent information or the potential purchase information received at block 522 may have a corresponding purchase confirmation flag indicating that the monitored person 32 purchased the related product or service. If the consumer purchase data collector 170 determines that the monitored person 32 made the purchase (block 524), the consumer purchase data collector 170 stores the purchase information (block 526) in association with a corresponding timestamp and location identifier in the purchase data log file 186 (FIG. 3).” Mello ’479 at [0082]–[0084]. |

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| |  <br>FIG. 2A<br>Busch ’815 at Fig. 2A.<br>  <br>FIG. 16A |

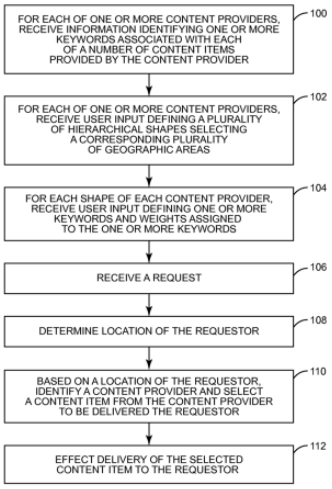
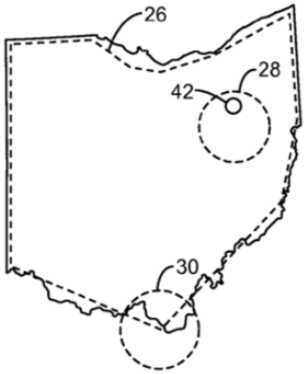


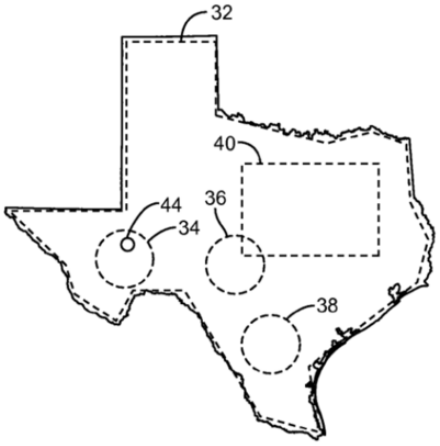


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| | Busch ’815 at Fig. 16A.<br><br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br><br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, integration of location data with customer relationship management systems and systems to determining retail business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br><br>“Then the mobile device may be configured to report the information describing whether or not the user responded to the content by going to the geographic location indicated back to the advertiser associated with corresponding element of the content result set. The system may also report the duration or period of time the geographic location of the mobile device corresponded to the geographic location corresponding to the element of the content result set, or a business location of the advertiser. This allows advertisers to see the different periods of time people spend at their business locations.” Busch ’815 at [0278].<br><br>“Alternatively, one or more destinations may be determined and the current geographic location information along with a proposed destination is routed to a routing program to obtain a path of travel. Next, a content result set is obtained that contains one or more elements selected based upon at least the likely course or area of travel, specific destination, or specific destinations so that information pertaining to businesses along the course of travel are available to the user. Any number of these results are displayed on the mobile device at appropriate times (e.g., when the user is approaching a business location along a path, when a user is walking around a shopping area, when the user is driving along a highway, when the user performs a search for content or a business, when a user requests route guidance, not when the user is in a movie theater, not when the user is eating dinner, not when the user is at work, etc.).” Busch ’815 at [0280]. |

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| | “In some forms of the invention, location information describing the perimeters of business locations are sent to the mobile device and the mobile device communicates with the server if the location of the mobile device is located within the perimeter of the business location. In other forms of the invention, the location information of the mobile device is sent to the system and compared with information describing the perimeters of business locations. Alternatively, the business locations may be defined by a point and radius, or mathematical formula. This is exemplary and is not intended to limit the scope of the invention. As shown and described, a person having ordinary skill in the art is able to implement the invention in any number of varying forms.” Busch ’815 at [0338].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract. |

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| |  <br>*FIG. 1*<br>Svendsen ’073 at Fig. 1.<br>  <br>***FIG. 4A***<br>Svendsen ’073 at Fig. 4A. |

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| |  <br>***FIG. 4B***<br>Svendsen ’073 at Fig. 4B. |

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| SHAPE | Z-ORDER | KEYWORDS |
|---|---|---|
| 26 | 0 | Change = 80, NAFTA = 30, election = 100, experience = 20 |
| 28 | 1 | job loss = 50, trade deficit |
| 30 | 2 | Iraq = 90, oil prices = 70 |
| 32 | 0 | Change = 80, NAFTA = 30, election = 100, experience = 20 |
| 34 | 1 | trade deficit = 80 |
| 36 | 2 | Iraq = 90 |
| 38 | 3 | job loss = 50 |
| 40 | 4 | oil prices = 70 |

***FIG. 4C***

Svendsen ’073 at Fig. 4C.

| POINT | INTERSECTING SHAPES | KEYWORDS | BID |
|---|---|---|---|
| 42 | 26, 28 | Change = 80, NAFTA = 30, election = 100, experience = 20, job loss = 50, trade deficit = 25 | 305 |
| 44 | 32, 34 | Change = 80, NAFTA = 30, election = 100, experience = 20, trade deficit = 80 | 310 |

***FIG. 4D***

Svendsen ’073 at Fig. 4D.

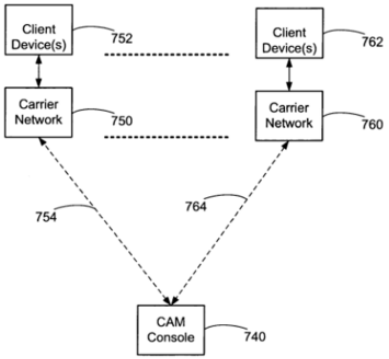
“For each content provider, the central custom content delivery function also receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. For each geographic shape, the content provider defines one or more tags for the geographic shape, or the geographic area selected by the geographic shape, and assigns a weight to each of the one or more tags. Like the tags

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| | assigned to the content items of the content provider, the tags assigned to the geographic shapes defined by the content provider may each be, for example, a keyword, a demographic criterion, or the like.” Svendsen ’073 at 1:31–41.<br><br>“In addition, for each content provider, information defining a number of geographic shapes selecting corresponding geographic areas is received from the content provider (step 102). Preferably, the geographic shapes are user-defined shapes defined by a user associated with the content provider. For example, a user associated with a content provider may provide a center point and radius defining a circle that selects a desired geographic area; four points defining a square or rectangular shape that selects a desired geographic area; a number of points, curves, or lines defining an arbitrary shape that selects a desired geographic area; or the like. As another example, the user may provide a line or curve and a distance (d) defining a shape selecting a geographic area within the distance (d) from the line or curve. Preferably, each of the geographic shapes defined by a content provider completely or partially overlaps at least one other of the geographic shapes. In addition, the geographic shapes defined for a content provider are preferably hierarchical in that the geographic shapes are assigned importance levels, which are referred to herein as z-order values. For each geographic shape of each content provider, information is received from the content provider defining one or more keywords and corresponding weights assigned to the geographic shape (step 104).” Svendsen ’073 at 3:11–34.<br><br>“As an example, FIG. 2A illustrates exemplary geographic shapes 10 through 16 defined by a content provider according to one embodiment of the present invention. While not shown, the geographic shapes 10 through 16 are combined with or overlaid upon a map or similar data structure to identify the corresponding geographic areas. Each one of the geographic shapes 10 through 16 overlaps or intersects at least one other one of the geographic shapes 10 through 16, and each one of the geographic shapes 10 through 16 is assigned an importance level, or z-order value. In this example, the content provider has assigned the keyword Red with a weight of 80 and the keyword Blue with a weight of 30 to the geographic shape 10, which is also referred to as Shape A. In other words, the content provider has tagged the geographic shape 10 with the keywords Red and Blue. The content provider has assigned the geographic shape 10 a z-order value of 0, thereby setting the geographic shape 10 to a lowest importance level. Likewise, the content provider has assigned the keyword White with a weight of 50 to the geographic shape 12, which is also referred to herein as Shape B, and assigned the geographic shape 12 a z-order value of 1. The content provider has assigned the keyword Blue with a weight of 90 to the geographic shape 14, which is also referred to herein as Shape C, and assigned the geographic shape 14 a z-order value of 2. Lastly, the content provider has assigned the keyword Green with a weight of 10 and the keyword Red with a weight of 20 to the geographic shape 16, |

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| | which is also referred to herein as Shape D, and assigned the geographic shape 16 a z-order value of 3.” Svendsen ’073 at 3:35–63.<br><br>“FIGS. 6A through 6C graphically illustrate the process of FIG. 5 according to one embodiment of the present invention. FIG. 6A illustrates geographic shapes defined by a content provider to select geographic areas of interest to the content provider.” Svendsen ’073 at 9:62–66.<br><br>“More specifically, as illustrated in FIG. 6A, the audio provider has defined a geographic shape 46 selecting the state of North Carolina and geographic shapes 48 through 56 selecting corresponding geographic areas within the state of North Carolina. FIG. 6B illustrates keywords and corresponding weights assigned to each of the geographic areas 46 through 56 by the audio provider as well as z-order values, or importance levels, assigned to the geographic shapes 46 through 56 by the audio provider. Note that in this example, the keywords are music genres.” Svendsen ’073 at 10:3–12.<br><br>“As discussed above, an account of a content provider includes information defining geographic shapes defined by the content provider and, for each content item of the content provider, one or more keywords assigned to the content item. In addition, for each geographic shape defined by the content provider, the account of the content provider includes keywords assigned to the geographic shape as well as weights for those keywords. Lastly, the account may include a z-order, or importance level, for each of the geographic shapes.” Svendsen ’073 at 13:52–60.<br><br>“Using advertisers as an example, in operation, one or more advertisers register with the customized content delivery function 78. As discussed above, each advertiser defines a number of geographic shapes selecting corresponding geographic areas.” Svendsen ’073 at 14:19–23.<br><br>“In another exemplary embodiment, the user device 72-1 may be a set-top box, and the request may be an automatic request by the user device 72-1 for advertisements to late-bind to video content being viewed or requested by the user 74-1. The customized content delivery function 78 may then select one or more advertisements and deliver or cause delivery of the advertisements to the user device 72-1. The rendering function 86-1 may then perform a late-binding process to insert the advertisements into the video content presented to the user 74-1. In this example, the advertisements may be commercials such as those included in traditional television programming. Note that these two exemplary embodiments are illustrative and not intended to limit the scope of the present invention. ” Svendsen ’073 at 14:44–57.<br><br>*See also* Svendsen ’073 at Fig. 14, 2:64–3:10, 3:64–4:23, 4:48–67, 7:63–8:4, 13:41–52, 14:10–17, 14:35–39, and 15:47–67. |

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| | “There are already several ad network/platforms available for iPhone apps. Here’s the current list of offerings:<br>• Crisp Wireless - currently creates banners + microsites; used by the New York Times and Washington Post apps<br>• PurpleTalk - allows creation of customizable text banners; features ad exchange “Partner Network”<br>• AppLoop - claims to be the first real-time, location-based mobile advertising network<br>• Pinch Media - widely-used ad network on dozens of iPhone apps<br>• Medialets - offers CPM, CPC and CPA advertising run natively through iPhone apps<br>• AdMob -offers rich-media (video-, map- and Apple App Store-integrated) banner ads on iPhone apps; also has an impressive list of signed clients” Menayan 2008 at 1.<br>“Here’s an example of Crisp Wireless’s ad for Westin Hotels on the New York Times app:<br>[Image]<br>The banner shows up towards the bottom of the front page of the app, and 1s, at least in this case, visually contrastive.” Menayan 2008 at 1–2. |

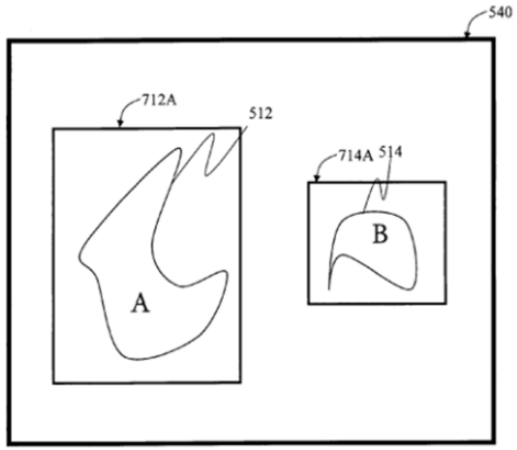
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| |  <br>Menayan 2008 at 2.<br>“• Precisely Target your ads based on location and context.<br>• Advanced Statistics report the performance of all your advertising campaigns.<br>• Engage dedicated, valuable, and near-by users from the palm of their hand.<br>Get Started<br>• Bring your advertising strategy to the next level with location-based mobile advertising, Why spend money advertising to people sitting on their couch or at a computer desk? Mobile application users are active and ready to spend money.” AppLoop.com: Advertisers at 1.<br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, |

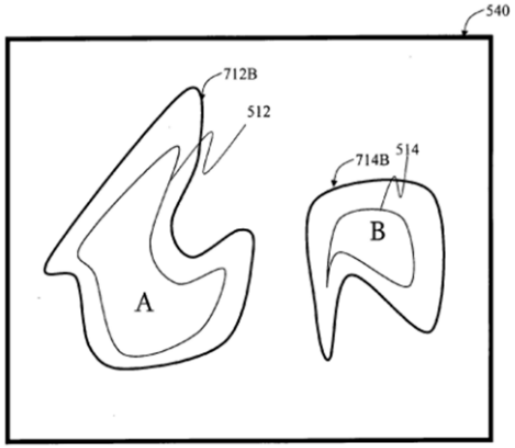
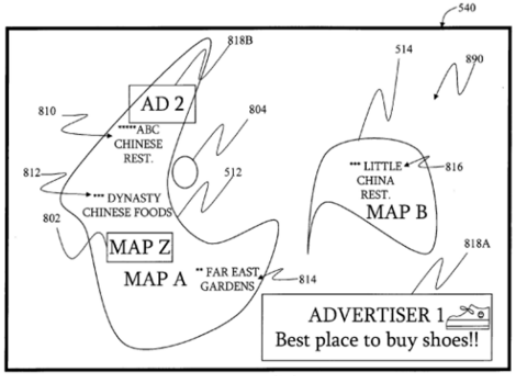
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| | would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [1d] receiving, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “receiving, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas.” For example:<br>  <br><br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B.<br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use |

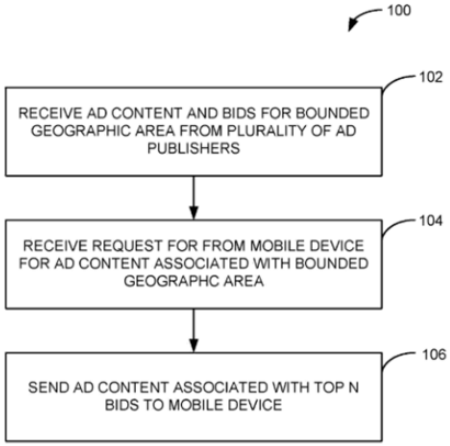
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| | the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br><br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely |

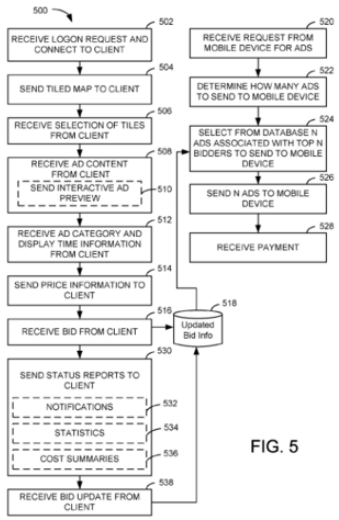
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| | (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on |

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| | a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed.<br><br>For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br><br>*See also* Kinoshita ’866 at Fig. 1, Fig. 3, Fig. 4, Fig. 5, Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, Fig. 11, Fig. 12, and [0043].<br><br>“Other information can be provided from commercial organizations, such as shopping malls that upload mall layout information and individual stores that provide information about sales or other relevant data. It should be noted that this information can be collected worldwide and the data associated with the disclosed embodiments is not limited to one area or country. Additionally or alternatively, the information relating to the businesses can be presented to the user based on the user's actual location or based on a mapping area viewed by the user. In such a manner, a user can receive business information for a geographic region of interest to the user (e.g., planning a vacation or business trip).” Smith ’558 at [0079]. |

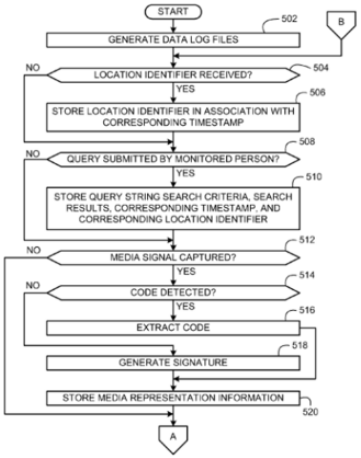
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| | “In some embodiments, an advertisement can overlay various objects (e.g., buildings, houses, streets, parks, vacant land, vehicles) in the mapping application. The various objects with the overlaid advertisement need not have previously been overlaid with an advertisement. However, based on the user preferences and the desires of the advertiser, the objects might have the advertisement overlaid based on the user preferences.” Smith ’558 at [0115].<br><br>“An advertiser may want to advertise in a specific area and is willing to spend a particular amount of money (e.g., $2.00, $4.00, $10.00, . . . ) per click-through by a user, for example. A coverage component 3602 can be a tool or wizard that creates a layer for the desired geography. The coverage component 3602 receives information relating to advertisement coverage desired by advertisers for a particular geographic location or area 3604.” Smith ’558 at [0236].<br><br>*See also* Sato ’965 at Fig. 3, Fig. 4, Fig. 5, Fig. 6, Fig. 26, [0079], [0080], [0240], and [0284].<br><br>  <br>FIG. 7A<br>Ahn ’281 at Fig. 7A. |

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| |  <br>FIG. 7B<br>Ahn ’281 at Fig, 7B.<br>  <br>FIG. 8A<br>Ahn ’281 at Fig. 8A.<br>*See also* Ahn ’281 at [0095]. |

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| | “The system of this invention utilizes similar components with the locationally specific transmitting unit transmitting a digitized message signal representing the screen graphic together with other product control signals related to the promoted item such as the universal product identification number, bar code, date or iteration of the promotional graphic, and the identity of the transmitting unit. The transmitted screen graphic signal is compared with a memory file of stored screen graphics and if a match is found, the stored memory graphic or the signal transmitted graphic is displayed. Often, using the standard checksum procedure, the stored memory graphic can be validated and displayed before completion of transmission of the message signal.” Begum ’880 at 1:60–2:5.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>*See also* Begum ’880 at Fig. 5, 2:6–12, 2:13–22, 4:59–63, 4:65–5:4, 6:18–37, 8:36–47, 8:56–9:1, 9:1–7, 9:12–16, 9:16–29, 9:56–65, and 10:16–31.<br><br>*See also* Levkovitz ’852 at [0026], [0045], [0159], [0195], [0272], and [0273].<br><br>  <br>FIG. 1<br>Bussmann ’294 at FIG. 1. |

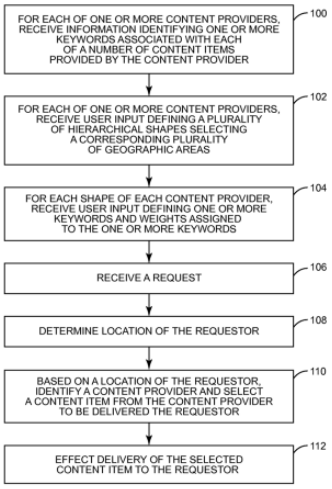
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| |  <br>FIG. 5<br>Bussmann ’294 at FIG 5.<br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. |

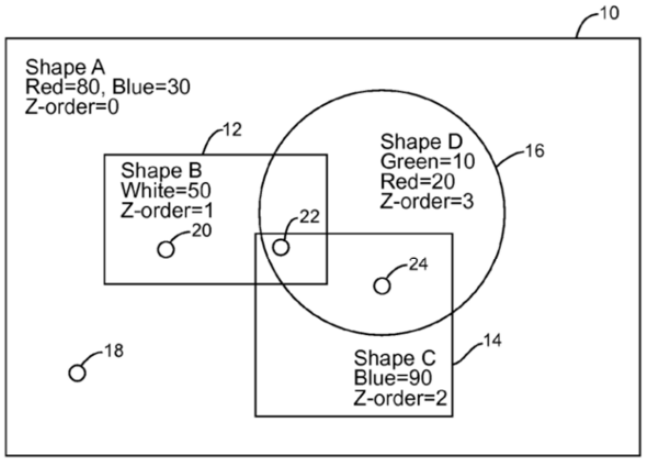
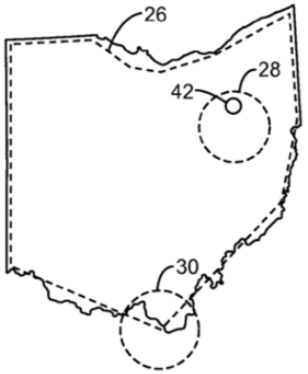
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| | Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“Continuing with the figures, FIG. 5 shows a method 500 of operating an advertising server. Method 500 illustrates various details of method 400 from the advertising server's point of view, where communications with an advertising publisher client are shown in a left-hand side of the figure and communications with a device are shown in a right-hand side of the figure. Method 500 first comprises, at 502, receiving a logon request from an advertising publisher client, and connecting to the client. Next, at 504, a tiled map is sent to the client to allow the advertising publisher to select tiles in which it is interested in having its advertising content distributed.<br><br>After sending the tiled map, a selection of tiles on the map is received from the client at 506, and advertising content is received from the client at 508. As described above, in some embodiments, an advertising server may be configured to allow an advertising publisher to view a preview of advertising content in the tiles selected by the advertising publisher. Therefore, method 500 comprises, at 510, sending an advertising content preview to the client. In some embodiments, the advertising content preview may be an interactive preview configured to allow an advertising publisher to view an item of advertising content on different types of devices, at different levels of zoom, panning, etc. to see how the item of advertising content will appear to a user in various specific geographic locations. In this manner, an advertising publisher may be able to tailor an appearance of an item of advertising content to a desired appearance in a specific device and/or location.<br><br>Method 500 next comprises, at 512, receiving advertising category and advertising display time information from the client. Examples of category and display time information are discussed in detail above. While the |

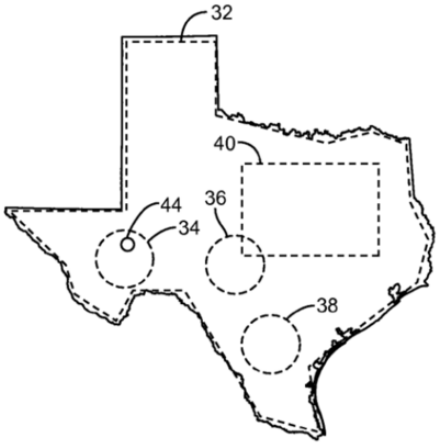
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| | depicted embodiment shows the category and time information appearing in a later step than the receipt of the ad content and selection of tiles, it will be understood that these items may be received in any suitable order.<br><br>Upon receipt of the selection of tiles, ad content, and category and time information, method 500 comprises, at 514, sending price information to the client, and then at 516, receiving a bid from a client. The bid is then stored in an updated bid information database, as indicated at 518. It will be understood that processes 502-518 may be performed by a plurality of different publishers on a continuous, rolling basis as clients wish to submit bid information. Further, the advertising server also may interact with requesting devices on a continuous, rolling basis to provide items of advertising content to the devices. An example of a transaction with a device such as a PND or the like is shown in FIG. 5 at 520-526. First, at 520, method 500 comprises receiving from a device a request for advertising content. Upon receipt of this request, it is determined, at 522, a number N of items of advertising content to send to the device. The number N of items of advertising content may vary depending upon a number of factors, including but not limited to, a type/brand/model of device that sent the request, a current level of zoom currently shown on the device display, and/or whether any advertising publishers have paid for exclusive advertising rights to a tile that is within the relevant geographic area.” Bussmann ’294 at [0035]–[0038].<br><br>  <br><br>FIG. 5A |

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| | Mello ’479 at FIG. 5A.<br><br>“After the web event data collector 166 stores the query string search criteria and associated information (block 510) or if the web event data collector 166 determines that a query has not been submitted (block 508), the media capture data collector 168 (FIG. 3) determines whether a media signal (e.g., an audio signal, a video signal, an RF signal, etc.) has been captured (block 512). For example, the media signal may be an audio signal associated with an advertisement presented by the audio device 16 or the video device 18 (FIG. 1), a video signal presented by the video device 18 (FIG. 1), or an RF signal emitted by the RF transceiver 22 of the billboard 20 (FIG. 1).<br><br>The media capture data collector 168 then determines whether the captured media signal includes a code (block 514). If the captured media signal includes a code, the media capture data collector 168 extracts (or creates a copy of) the code (block 516). If the captured media signal does not include a code (block 514), the media capture data collector 168 generates a signature of the captured media signal (block 518). Alternatively, a signature can always be collected regardless of whether a code was collected. After the media capture data collector 168 extracts a code (block 516) and/or generates a signature (block 518), the media capture data collector 168 stores the media representation information (e.g., the code and/or the signature) (block 520) in the media data log file 184 (FIG. 3).<br><br>After the media capture data collector 168 stores the media representation information (block 520) or if the media capture data collector 168 determines that a media signal has not been captured (block 512), the consumer purchase data collector 170 determines whether any input data relating to potential purchases have been received (block 522) (FIG. 5B). In the illustrated example, the potential purchase data is data indicative of a product or a service such as, for example, bar code information read using the bar code reader 136 (FIG. 2) or RFID information received via the RF transceiver 134 (FIG. 2) in response to the monitored person 32 scanning a product or a service document. If the consumer purchase data collector 170 determines that potential purchase data has been received (block 522), the consumer purchase data collector 170 determines whether the monitored person 32 purchased the product or service corresponding to the received potential purchase data (block 524). For example, the consumer purchase data collector 170 may receive subsequent information or the potential purchase information received at block 522 may have a corresponding purchase confirmation flag indicating that the monitored person 32 purchased the related product or service. If the consumer purchase data collector 170 determines that the monitored person 32 made the purchase (block 524), the consumer purchase data collector 170 stores the purchase information (block 526) in association |

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| | with a corresponding timestamp and location identifier in the purchase data log file 186 (FIG. 3).” Mello ’479 at [0082]–[0084].<br><br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br><br>“The act of processing the data involves first comparing the data set to a collection of other data sets associated with the user and then determining a set of previously traveled courses including at least a most likely course of travel. Alternatively, the act of processing may involve comparing the data set to a database of businesses and their locations, and then determining a set of likely locations that have previously been visited by the user of the mobile device.” Busch ’815 at [0272].<br><br>“Then the mobile device may be configured to report the information describing whether or not the user responded to the content by going to the geographic location indicated back to the advertiser associated with corresponding element of the content result set. The system may also report the duration or period of time the geographic location of the mobile device corresponded to the geographic location corresponding to the element of the content result set, or a business location of the advertiser. This allows advertisers to see the different periods of time people spend at their business locations.” Busch ’815 at [0278].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract. |

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| |  <br>*FIG. 1*<br>Svendsen ’073 at Fig. 1. |

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| |  <br>***FIG. 2A***<br>Svendsen ’073 at Fig. 2A.<br>  <br>***FIG. 4A***<br>Svendsen ’073 at Fig. 4A. |

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| |  <br>***FIG. 4B***<br>Svendsen ’073 at Fig. 4B. |

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| SHAPE | Z-ORDER | KEYWORDS |
|---|---|---|
| 26 | 0 | Change = 80, NAFTA = 30, election = 100, experience = 20 |
| 28 | 1 | job loss = 50, trade deficit |
| 30 | 2 | Iraq = 90, oil prices = 70 |
| 32 | 0 | Change = 80, NAFTA = 30, election = 100, experience = 20 |
| 34 | 1 | trade deficit = 80 |
| 36 | 2 | Iraq = 90 |
| 38 | 3 | job loss = 50 |
| 40 | 4 | oil prices = 70 |

***FIG. 4C***

Svendsen ’073 at Fig. 4C.

| POINT | INTERSECTING SHAPES | KEYWORDS | BID |
|---|---|---|---|
| 42 | 26, 28 | Change = 80, NAFTA = 30, election = 100, experience = 20, job loss = 50, trade deficit = 25 | 305 |
| 44 | 32, 34 | Change = 80, NAFTA = 30, election = 100, experience = 20, trade deficit = 80 | 310 |

***FIG. 4D***

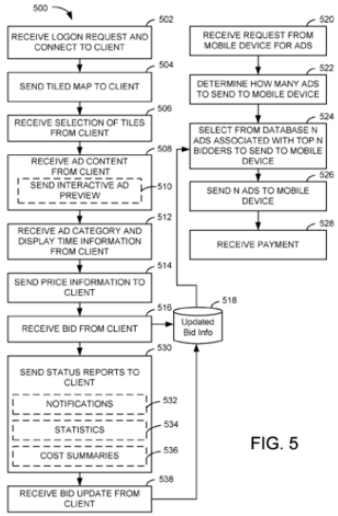
Svendsen ’073 at Fig. 4D.

“For each content provider, the central custom content delivery function also receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. For each geographic shape, the content provider defines one or more tags for the geographic shape, or the geographic area selected by the geographic shape, and assigns a weight to each of the one or more tags. Like the tags

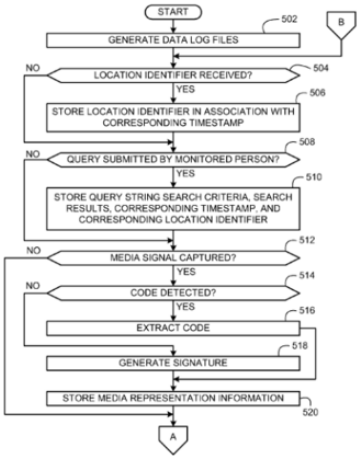
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| | assigned to the content items of the content provider, the tags assigned to the geographic shapes defined by the content provider may each be, for example, a keyword, a demographic criterion, or the like.” Svendsen ’073 at 1:31–41.<br><br>“In addition, for each content provider, information defining a number of geographic shapes selecting corresponding geographic areas is received from the content provider (step 102). Preferably, the geographic shapes are user-defined shapes defined by a user associated with the content provider. For example, a user associated with a content provider may provide a center point and radius defining a circle that selects a desired geographic area; four points defining a square or rectangular shape that selects a desired geographic area; a number of points, curves, or lines defining an arbitrary shape that selects a desired geographic area; or the like. As another example, the user may provide a line or curve and a distance (d) defining a shape selecting a geographic area within the distance (d) from the line or curve. Preferably, each of the geographic shapes defined by a content provider completely or partially overlaps at least one other of the geographic shapes. In addition, the geographic shapes defined for a content provider are preferably hierarchical in that the geographic shapes are assigned importance levels, which are referred to herein as z-order values. For each geographic shape of each content provider, information is received from the content provider defining one or more keywords and corresponding weights assigned to the geographic shape (step 104).” Svendsen ’073 at 3:11–34.<br><br>“As an example, FIG. 2A illustrates exemplary geographic shapes 10 through 16 defined by a content provider according to one embodiment of the present invention. While not shown, the geographic shapes 10 through 16 are combined with or overlaid upon a map or similar data structure to identify the corresponding geographic areas. Each one of the geographic shapes 10 through 16 overlaps or intersects at least one other one of the geographic shapes 10 through 16, and each one of the geographic shapes 10 through 16 is assigned an importance level, or z-order value. In this example, the content provider has assigned the keyword Red with a weight of 80 and the keyword Blue with a weight of 30 to the geographic shape 10, which is also referred to as Shape A. In other words, the content provider has tagged the geographic shape 10 with the keywords Red and Blue. The content provider has assigned the geographic shape 10 a z-order value of 0, thereby setting the geographic shape 10 to a lowest importance level. Likewise, the content provider has assigned the keyword White with a weight of 50 to the geographic shape 12, which is also referred to herein as Shape B, and assigned the geographic shape 12 a z-order value of 1. The content provider has assigned the keyword Blue with a weight of 90 to the geographic shape 14, which is also referred to herein as Shape C, and assigned the geographic shape 14 a z-order value of 2. Lastly, the content provider has assigned the keyword Green with a weight of 10 and the keyword Red with a weight of 20 to the geographic shape 16, |

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| | which is also referred to herein as Shape D, and assigned the geographic shape 16 a z-order value of 3.” Svendsen ’073 at 3:35–63.<br><br>“FIGS. 6A through 6C graphically illustrate the process of FIG. 5 according to one embodiment of the present invention. FIG. 6A illustrates geographic shapes defined by a content provider to select geographic areas of interest to the content provider.” Svendsen ’073 at 9:62–66.<br><br>“More specifically, as illustrated in FIG. 6A, the audio provider has defined a geographic shape 46 selecting the state of North Carolina and geographic shapes 48 through 56 selecting corresponding geographic areas within the state of North Carolina. FIG. 6B illustrates keywords and corresponding weights assigned to each of the geographic areas 46 through 56 by the audio provider as well as z-order values, or importance levels, assigned to the geographic shapes 46 through 56 by the audio provider. Note that in this example, the keywords are music genres.” Svendsen ’073 at 10:3–12.<br><br>*See also* Svendsen ’073 at 4:48–67, 7:63–8:4, 13:41–52, and 13:52–60.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [1e] providing the sponsor a response to the request; | The following prior art expressly or inherently discloses and renders obvious “providing the sponsor a response to the request.” For example:<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the |

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| | invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042].<br><br>“Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br><br>*See also* Kinoshita ’866 at Fig. 1, Fig. 3, Fig. 4, Fig. 5, Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, Fig. 11, Fig. 12, and [0043].<br><br>“Other information can be provided from commercial organizations, such as shopping malls that upload mall layout information and individual stores that provide information about sales or other relevant data. It should be noted that this information can be collected worldwide and the data associated with the disclosed embodiments is not limited to one area or country. Additionally or alternatively, the information relating to the businesses can be presented to the user based on the user's actual location or based on a mapping area |

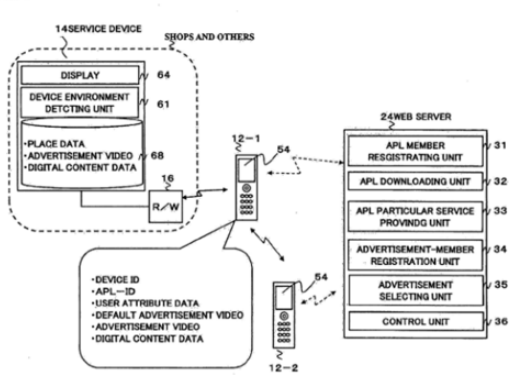
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| | viewed by the user. In such a manner, a user can receive business information for a geographic region of interest to the user (e.g., planning a vacation or business trip).” Smith ’558 at [0079].<br><br>*See also* Sato ’965 at Fig. 6, [0240], and [0284].<br><br>“The system of this invention utilizes similar components with the locationally specific transmitting unit transmitting a digitized message signal representing the screen graphic together with other product control signals related to the promoted item such as the universal product identification number, bar code, date or iteration of the promotional graphic, and the identity of the transmitting unit. The transmitted screen graphic signal is compared with a memory file of stored screen graphics and if a match is found, the stored memory graphic or the signal transmitted graphic is displayed. Often, using the standard checksum procedure, the stored memory graphic can be validated and displayed before completion of transmission of the message signal.” Begum ’880 at 1:60–2:5.<br><br>*See also* Begum ’880 at Fig. 5, 2:13–22, 6:18–37, 8:36–47, 8:56–9:1, 9:1–7, 9:12–16, 9:16–29, and 9:52–55.<br><br>*See also* Levkovitz ’852 at [0045], [0159], [0195], [0272], and [0273].<br><br>  <br><br>FIG. 5<br><br>Bussmann ’294 at FIG 5. |

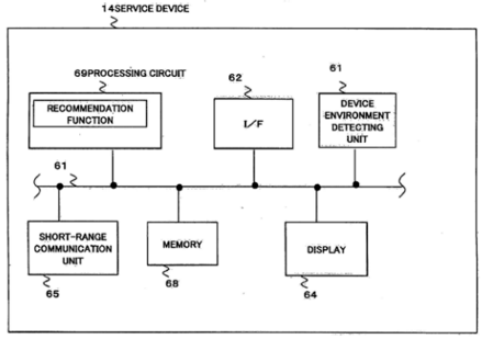
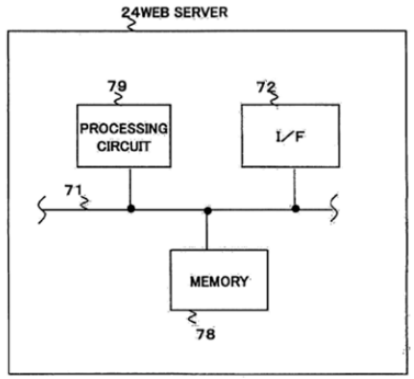
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| | “Continuing with the figures, FIG. 5 shows a method 500 of operating an advertising server. Method 500 illustrates various details of method 400 from the advertising server's point of view, where communications with an advertising publisher client are shown in a left-hand side of the figure and communications with a device are shown in a right-hand side of the figure. Method 500 first comprises, at 502, receiving a logon request from an advertising publisher client, and connecting to the client. Next, at 504, a tiled map is sent to the client to allow the advertising publisher to select tiles in which it is interested in having its advertising content distributed.<br><br>After sending the tiled map, a selection of tiles on the map is received from the client at 506, and advertising content is received from the client at 508. As described above, in some embodiments, an advertising server may be configured to allow an advertising publisher to view a preview of advertising content in the tiles selected by the advertising publisher. Therefore, method 500 comprises, at 510, sending an advertising content preview to the client. In some embodiments, the advertising content preview may be an interactive preview configured to allow an advertising publisher to view an item of advertising content on different types of devices, at different levels of zoom, panning, etc. to see how the item of advertising content will appear to a user in various specific geographic locations. In this manner, an advertising publisher may be able to tailor an appearance of an item of advertising content to a desired appearance in a specific device and/or location.<br><br>Method 500 next comprises, at 512, receiving advertising category and advertising display time information from the client. Examples of category and display time information are discussed in detail above. While the depicted embodiment shows the category and time information appearing in a later step than the receipt of the ad content and selection of tiles, it will be understood that these items may be received in any suitable order.<br><br>Upon receipt of the selection of tiles, ad content, and category and time information, method 500 comprises, at 514, sending price information to the client, and then at 516, receiving a bid from a client. The bid is then stored in an updated bid information database, as indicated at 518. It will be understood that processes 502-518 may be performed by a plurality of different publishers on a continuous, rolling basis as clients wish to submit bid information. Further, the advertising server also may interact with requesting devices on a continuous, rolling basis to provide items of advertising content to the devices. An example of a transaction with a device such as a PND or the like is shown in FIG. 5 at 520-526. First, at 520, method 500 comprises receiving from a device a request for advertising content. Upon receipt of this request, it is determined, at 522, a number N of items of advertising content to send to the device. The number N of items of advertising content may vary depending upon a number of factors, including but not limited to, a type/brand/model of device that sent the request, a current level of zoom currently shown on the device display, and/or whether |

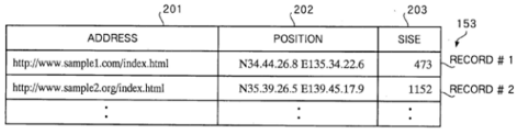
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| | any advertising publishers have paid for exclusive advertising rights to a tile that is within the relevant geographic area.” Bussmann ’294 at [0035]–[0038].<br>  <br><br>FIG. 5A<br>Mello ’479 at FIG. 5A.<br>“After the web event data collector 166 stores the query string search criteria and associated information (block 510) or if the web event data collector 166 determines that a query has not been submitted (block 508), the media capture data collector 168 (FIG. 3) determines whether a media signal (e.g., an audio signal, a video signal, an RF signal, etc.) has been captured (block 512). For example, the media signal may be an audio signal associated with an advertisement presented by the audio device 16 or the video device 18 (FIG. 1), a video signal presented by the video device 18 (FIG. 1), or an RF signal emitted by the RF transceiver 22 of the billboard 20 (FIG. 1).<br>The media capture data collector 168 then determines whether the captured media signal includes a code (block 514). If the captured media signal includes a code, the media capture data collector 168 extracts (or creates a copy of) the code (block 516). If the captured media signal does not include a code (block 514), the media capture data collector 168 generates a signature of the captured media signal (block 518). Alternatively, a signature can always be collected regardless of whether a code was collected. After the media |

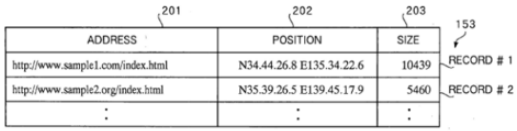
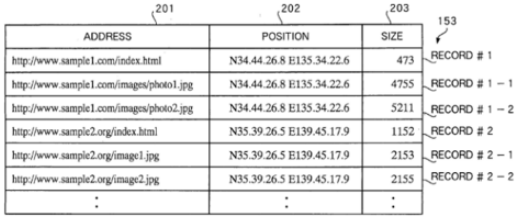
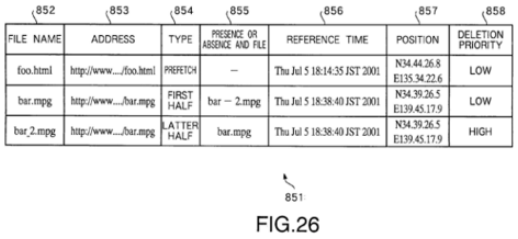
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| | capture data collector 168 extracts a code (block 516) and/or generates a signature (block 518), the media capture data collector 168 stores the media representation information (e.g., the code and/or the signature) (block 520) in the media data log file 184 (FIG. 3).<br><br>After the media capture data collector 168 stores the media representation information (block 520) or if the media capture data collector 168 determines that a media signal has not been captured (block 512), the consumer purchase data collector 170 determines whether any input data relating to potential purchases have been received (block 522) (FIG. 5B). In the illustrated example, the potential purchase data is data indicative of a product or a service such as, for example, bar code information read using the bar code reader 136 (FIG. 2) or RFID information received via the RF transceiver 134 (FIG. 2) in response to the monitored person 32 scanning a product or a service document. If the consumer purchase data collector 170 determines that potential purchase data has been received (block 522), the consumer purchase data collector 170 determines whether the monitored person 32 purchased the product or service corresponding to the received potential purchase data (block 524). For example, the consumer purchase data collector 170 may receive subsequent information or the potential purchase information received at block 522 may have a corresponding purchase confirmation flag indicating that the monitored person 32 purchased the related product or service. If the consumer purchase data collector 170 determines that the monitored person 32 made the purchase (block 524), the consumer purchase data collector 170 stores the purchase information (block 526) in association with a corresponding timestamp and location identifier in the purchase data log file 186 (FIG. 3).” Mello ’479 at [0082]–[0084].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract.<br><br>“FIGS. 6A through 6C graphically illustrate the process of FIG. 5 according to one embodiment of the present invention. FIG. 6A illustrates geographic shapes defined by a content provider to select geographic areas of interest to the content provider.” Svendsen ’073 at 9:62–66. |

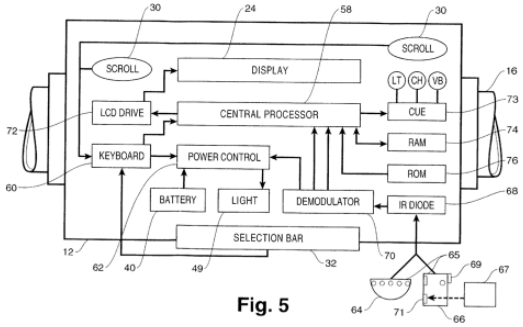
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| | *See also* Svendsen ’073 at Fig. 1, Fig. 4A, Fig. 4B, Fig. 4C, 1:31–41, 3:11–34, 3:35–63, 4:48–67, 7:63–8:4, 10:3–12, 13:41–52, and 13:52–60.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [1f] storing a record of the interest in the selected one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “storing a record of the interest in the selected one of the plurality of geographic areas.” For example:<br><br>“ In another example, the server 120 (e.g., using the ad dispatch server and SMSC server) can send an API-directed SMS message 330 containing a URL and/or code to perform a call back to server 120 or other remote server. For example, CAM 310 can receive the message 330 and call an appropriate API (e.g., a browser) to initiate the connection 332 to the server 120 and download an associated HTML page/document (e.g., advertisement) 334 to client device 300. After the HTML page has been downloaded, the page can be displayed 336 on the client device 300. In this embodiment, the HTML callback allows server-stored graphic advertising (e.g., on the ad dispatch server) to be placed on the main screen of the client device 300 instead of a simple SMS text-only advertisement. Those skilled in the art will appreciate that embodiments of the invention are not limited to HTML documents and that a document retrieved may include any format to convey the desired advertisement, such as XML, HDML, WML, XHTML and/or graphic formats such as PNG, GIF, JPEG, BMP, and the like. This aspect of the API-directed SMS for CAM advertisement placement can be referred to as an Announcement Download Request (ADR). Unlike the pure SMS methods, the ADR does not contain the ad itself. Instead its payload is a URL pointing to an ad located on the server 120 (e.g., contained in the ad dispatch server). CAM 310 downloads the ad from the URL given by the ADR and can present it according to a predefined rule set. Separate HTML ads can be cached on the server 120 for each client device type (e.g., specific handsets, PDAs and the like), or the server 120 can have an application that builds HTML ads on the fly, tailoring the ad to the capabilities of the client device 300. In addition to the SMS and HTML ads, ads can be of any type of text-based message and/or graphic-based message (e.g., pdf, XML, JPEG, MPEG and the like).” Chmaytelli ’453 at [0042]. |

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| | “Optionally, the CAM 310 can report 340 the response to the ad (e.g., the advertisement was discarded, a purchase was made, and the like) to a server (e.g., ad dispatch server 130). This ad response data can be accumulated and sent on a periodic basis or can be sent on each event. The ad dispatch server 130 can then collate the reported responses (e.g., from one or more client devices) and send the collated responses 342 (e.g., using an XML feed) back to server 120. The server 120 can interpret the received data and utilize the data to design new advertisements based on the data received from ad dispatch server 130. Those skilled in the art will appreciate that ad dispatch server 130 can be integrated into server 120, or can be a plurality of separate servers that perform functionally as described. In addition to using the feedback for advertisement improvement, the data supplied by CAM 310 can be used for billing the advertisers (e.g., based on number of times an ad is viewed, clicked on, and the like). Further, ad viewing data can be tracked and reported in the ad response data, such as, information regarding whether all pages of an ad were viewed, whether some links were followed, and the like.” Chmaytelli ’453 at [0043].<br>FIG. 1<br>  <br><br>Kinoshita ’866 at Fig. 1. |

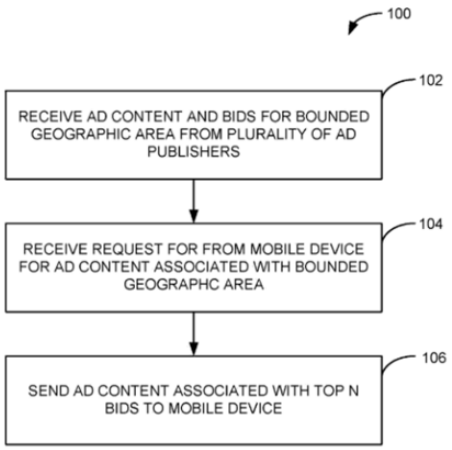
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| | FIG. 3<br>  <br><br>Kinoshita ’866 at Fig. 3.<br>FIG. 4<br>  <br><br>Kinoshita ’866 at Fig. 4.<br>“The advertisement selecting unit 35 selects suitable advertisement data from the advertisement data stored in the memory 78 based upon both the changed questionnaire data and place data that are transferred from the cellular phone 12-1. Specifically, the advertisement selecting unit 35 designates a tag corresponding to user's preference based upon the prepared correspondence table, in which tags are beforehand associated with user's |

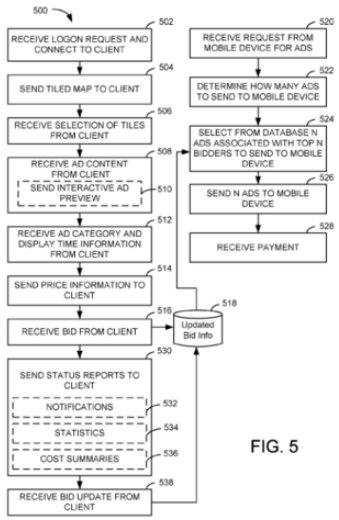
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| | preferences based upon the changed questionnaire data. And the advertisement selecting unit 35 also designates a tag corresponding to the above place based upon the prepared correspondence table. Then the advertisement selecting unit 35 selects a plurality of advertisement items having the above tags by searching advertisement data stored in the memory 78. The advertisement selecting unit 35 also selects advertisement data based upon both the place data and the environment data around the service device 14, as will be described later.” Kinoshita ’866 at [0043].<br><br>*See also* Kinoshita ’866 at Fig. 5, Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, Fig. 11, Fig. 12, and [0100].<br><br>“Other information can be provided from commercial organizations, such as shopping malls that upload mall layout information and individual stores that provide information about sales or other relevant data. It should be noted that this information can be collected worldwide and the data associated with the disclosed embodiments is not limited to one area or country. Additionally or alternatively, the information relating to the businesses can be presented to the user based on the user's actual location or based on a mapping area viewed by the user. In such a manner, a user can receive business information for a geographic region of interest to the user (e.g., planning a vacation or business trip).” Smith ’558 at [0079].<br><br>“In some embodiments, an advertisement can overlay various objects (e.g., buildings, houses, streets, parks, vacant land, vehicles) in the mapping application. The various objects with the overlaid advertisement need not have previously been overlaid with an advertisement. However, based on the user preferences and the desires of the advertiser, the objects might have the advertisement overlaid based on the user preferences.” Smith ’558 at [0115].<br><br>“Overwrite component 604 might further be configured to modify map features based on advertiser information 610. Advertisers can purchase advertisements in the display space utilizing a per diem scheme, a click through scheme, any other scheme or combination of schemes. Advertisements can also be purchased based on geographic location. Such geographic location can be the actual physical location of the user or alternatively can be the geographic area that the user is viewing, which may not be the same as the physical location of the user.” Smith ’558 at [0117].<br><br>  <br><br>FIG. 3 |

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| | Sato ’965 at Fig. 3.<br>  <br><br>FIG. 4<br>Sato ’965 at Fig. 4.<br>  <br><br>FIG. 5<br>Sato ’965 at Fig. 5.<br>  <br><br>FIG.26<br>Sato ’965 at Fig. 26.<br>““Position” field 202 stores a position inside region 146 (see FIG. 1) to which is related the content expressed by content data 152.” Sato ’965 at [0079].<br>“In the example as shown in FIG. 3, the position inside region 146 is represented by the latitude and longitude. In addition, a mode for representing a position inside region 146 is not limited to the foregoing. Further, a position inside region 146 to which content is related is called a “content position” in this specification.” Sato ’965 at [0080]. |

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| | “Content data 152 is first stored in content server 103 (stage 1000)” Sato ’965 at [0284].<br><br>*See also* Sato ’965 at Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, [0172], and [0240].<br><br>  <br><br>Fig. 5<br><br>Begum ’880 at Fig. 5.<br><br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br><br>“The infrared or radio frequency receiver in the handle, used for an alarm when the cart or handle leaves a prescribed area, also be used to receive an advertisement signal by appropriate programming as described.” Begum ’880 at 4:59–63.<br><br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47. |

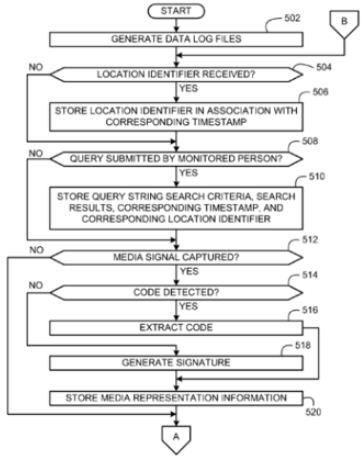
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| | “Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“Each transceiver unit 65 can have a separate identification such that data transmitted from the control unit 67 is transmitted store wide but is processed and stored only by the transceiver unit to which the data is intended.” Begum ’880 at 9:8–11.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>*See also* Begum ’880 at Fig. 9, 1:60–2:5, 2:6–12, 4:33–38, 4:65–5:4, 5:65–6:4, 6:18–37, 9:12–16, 9:16–29, 9:56–65, 10:16–31, 10:41–51, and 10:52–11:3.<br><br>*See also* Levkovitz ’852 at [0045], [0159], [0195], [0272], and [0273]. |

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| |  <br>FIG. 1<br>Bussmann ’294 at FIG. 1. |

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| |  <br>FIG. 5<br>Bussmann ’294 at FIG 5.<br>“FIG. 1 shows a flow diagram depicting an embodiment of a method 100 of providing location-based advertising services. Method 100 comprises, at 102, receiving advertising content and pricing bids from each of a plurality of advertising publishers. As explained in more detail below, the pricing bids comprise an offer to pay a specified amount of money in exchange for having the advertising content of the bidder sent to a device for presentation to a user. Further, the advertising content and bid are associated with a specific bounded geographic area defined in a geographic region. Therefore, the advertising content is sent to devices located within, or within some distance adjacent to, the bounded area. Next, method 100 comprises, at 104, receiving a request from a device for advertising content associated with the bounded area. Then, method 100 comprises, at 106, sending advertising content associated with the top N bids to the device for presentation to a user of the device, wherein N may be zero (in the case of no bids) or a positive integer. In this manner, advertising publishers may bid a specific price to pay for the distribution of advertising content in a specified geographic area, and the highest bidder or bidders win priority to have advertising content items presented to a device user over other lower bidders.<br>Depending upon various device-specific parameters of the device and the nature of the advertising content sent to the device, one or more items of advertising content may be presented on the device at any one time. |

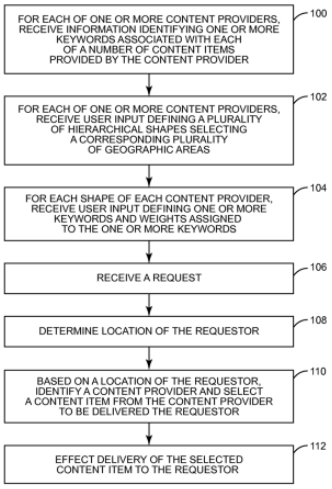
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| | Therefore, in some circumstances, the highest bidder's advertising content alone may be sent to a requesting device, while in other circumstances, more than one item of advertising content may be sent to a requesting device. Where more than one item of advertising content is sent to a device, the items of advertising content may be selected based upon descending order of bids. As a specific example, a GPS-enabled smart phone may allow a map to be displayed at various levels of zoom. In one example, for a specific level of zoom in a specific geographic region, the smart phone may be able to display three items of advertising content on a map. In this case, the device may be sent items of advertising content for the top three bidders for the geographic area displayed on the map. Therefore, advertising publishers who wish to have advertising content sent to mobile phones have an incentive to bid close to or above a highest bid for a desired bounded geographic area. This may help to obtain higher bids for distributing the advertising content items, and therefore may contribute to greater economic returns per advertisement view. More detailed implementations of method 100 are discussed in more detail below.” Bussmann ’294 at [0010]–[0011].<br><br>“Continuing with FIG. 2, the advertising server 202 is also configured to provide advertising content to devices 210, 212, 214 that request content for specified locations. When requesting advertising content, a device (such as device 210) sends information regarding its geographic location to the advertising server 202. The device 210 also may send other information. For example, the device 210 may send information regarding its type, manufacturer and/or model identity. Such information may allow the advertising server 202 to select items of advertising content intended for that type of device. The device 210 also may send information regarding a current zoom level at which the display on the device is currently being viewed. Such information may allow the advertising server to select items of advertising content configured to trigger at the specified level of zoom, and/or to determine how many items of advertising content can be viewed at one time on the device display and therefore to select how many advertising content items to send to the device.” Bussmann ’294 at [0023].<br><br>“Continuing with the figures, FIG. 5 shows a method 500 of operating an advertising server. Method 500 illustrates various details of method 400 from the advertising server's point of view, where communications with an advertising publisher client are shown in a left-hand side of the figure and communications with a device are shown in a right-hand side of the figure. Method 500 first comprises, at 502, receiving a logon request from an advertising publisher client, and connecting to the client. Next, at 504, a tiled map is sent to the client to allow the advertising publisher to select tiles in which it is interested in having its advertising content distributed.<br><br>After sending the tiled map, a selection of tiles on the map is received from the client at 506, and advertising content is received from the client at 508. As described above, in some embodiments, an advertising server |

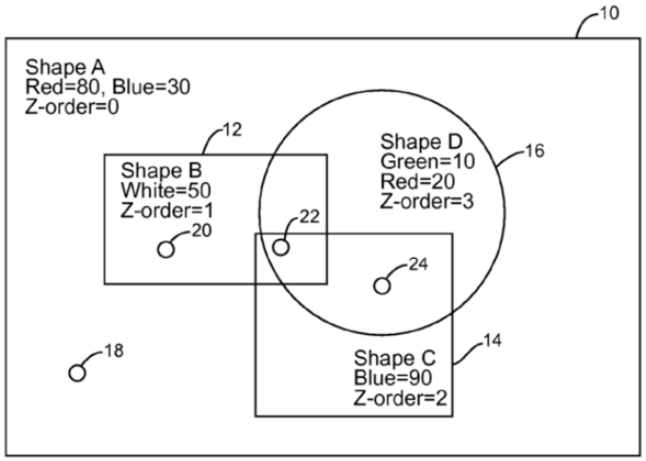
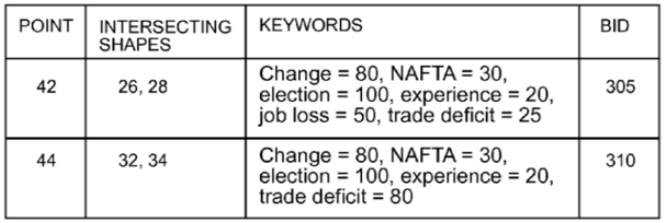
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| | may be configured to allow an advertising publisher to view a preview of advertising content in the tiles selected by the advertising publisher. Therefore, method 500 comprises, at 510, sending an advertising content preview to the client. In some embodiments, the advertising content preview may be an interactive preview configured to allow an advertising publisher to view an item of advertising content on different types of devices, at different levels of zoom, panning, etc. to see how the item of advertising content will appear to a user in various specific geographic locations. In this manner, an advertising publisher may be able to tailor an appearance of an item of advertising content to a desired appearance in a specific device and/or location.<br><br>Method 500 next comprises, at 512, receiving advertising category and advertising display time information from the client. Examples of category and display time information are discussed in detail above. While the depicted embodiment shows the category and time information appearing in a later step than the receipt of the ad content and selection of tiles, it will be understood that these items may be received in any suitable order.<br><br>Upon receipt of the selection of tiles, ad content, and category and time information, method 500 comprises, at 514, sending price information to the client, and then at 516, receiving a bid from a client. The bid is then stored in an updated bid information database, as indicated at 518. It will be understood that processes 502-518 may be performed by a plurality of different publishers on a continuous, rolling basis as clients wish to submit bid information. Further, the advertising server also may interact with requesting devices on a continuous, rolling basis to provide items of advertising content to the devices. An example of a transaction with a device such as a PND or the like is shown in FIG. 5 at 520-526. First, at 520, method 500 comprises receiving from a device a request for advertising content. Upon receipt of this request, it is determined, at 522, a number N of items of advertising content to send to the device. The number N of items of advertising content may vary depending upon a number of factors, including but not limited to, a type/brand/model of device that sent the request, a current level of zoom currently shown on the device display, and/or whether any advertising publishers have paid for exclusive advertising rights to a tile that is within the relevant geographic area.” Bussmann ’294 at [0035]–[0038]. |

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| |  <br>FIG. 5A<br>Mello ’479 at FIG. 5A.<br>“After the web event data collector 166 stores the query string search criteria and associated information (block 510) or if the web event data collector 166 determines that a query has not been submitted (block 508), the media capture data collector 168 (FIG. 3) determines whether a media signal (e.g., an audio signal, a video signal, an RF signal, etc.) has been captured (block 512). For example, the media signal may be an audio signal associated with an advertisement presented by the audio device 16 or the video device 18 (FIG. 1), a video signal presented by the video device 18 (FIG. 1), or an RF signal emitted by the RF transceiver 22 of the billboard 20 (FIG. 1).<br>The media capture data collector 168 then determines whether the captured media signal includes a code (block 514). If the captured media signal includes a code, the media capture data collector 168 extracts (or creates a copy of) the code (block 516). If the captured media signal does not include a code (block 514), the media capture data collector 168 generates a signature of the captured media signal (block 518). Alternatively, a signature can always be collected regardless of whether a code was collected. After the media capture data collector 168 extracts a code (block 516) and/or generates a signature (block 518), the media |

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| | capture data collector 168 stores the media representation information (e.g., the code and/or the signature) (block 520) in the media data log file 184 (FIG. 3).<br><br>After the media capture data collector 168 stores the media representation information (block 520) or if the media capture data collector 168 determines that a media signal has not been captured (block 512), the consumer purchase data collector 170 determines whether any input data relating to potential purchases have been received (block 522) (FIG. 5B). In the illustrated example, the potential purchase data is data indicative of a product or a service such as, for example, bar code information read using the bar code reader 136 (FIG. 2) or RFID information received via the RF transceiver 134 (FIG. 2) in response to the monitored person 32 scanning a product or a service document. If the consumer purchase data collector 170 determines that potential purchase data has been received (block 522), the consumer purchase data collector 170 determines whether the monitored person 32 purchased the product or service corresponding to the received potential purchase data (block 524). For example, the consumer purchase data collector 170 may receive subsequent information or the potential purchase information received at block 522 may have a corresponding purchase confirmation flag indicating that the monitored person 32 purchased the related product or service. If the consumer purchase data collector 170 determines that the monitored person 32 made the purchase (block 524), the consumer purchase data collector 170 stores the purchase information (block 526) in association with a corresponding timestamp and location identifier in the purchase data log file 186 (FIG. 3).” Mello ’479 at [0082]–[0084].<br><br>“Significant benefit is provided by a content targeting methods and systems usable with mobile devices that provide feedback to the advertisers—especially those advertisers that have brick and mortar businesses—to help them judge the effectiveness of their targeted content. The effectiveness of a business' advertising effort may be measured by determining with regard to a user of a device that has received targeted content one or more of: whether the user visits a business location of a content producer after their content has been delivered to the device; the time spent at the location; and, how much money was spent at the business by that user (especially in the case where the user pays through an online payment service utilizing the mobile device).” Busch ’815 at [0008].<br><br>“The present invention provides among other things methods and systems to obtain data relating to location from mobile devices, processing this data, sending content to a mobile device based at least in part on location data, integration of location data associated with a mobile device with web based applications accessed with a standard computer or laptop, integration of location data with conversion tracking systems, integration of location data with customer relationship management systems and systems to determining retail |

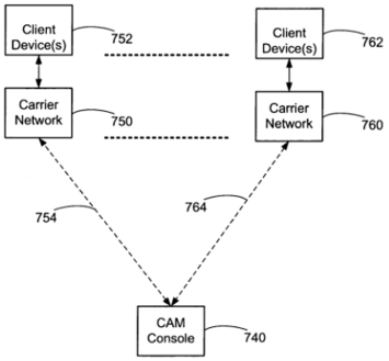
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| | business location performance, integration with social uses of location data of mobile devices, and integration with navigation uses of location data associated with mobile devices.” Busch ’815 at [0159].<br><br>“Then the mobile device may be configured to report the information describing whether or not the user responded to the content by going to the geographic location indicated back to the advertiser associated with corresponding element of the content result set. The system may also report the duration or period of time the geographic location of the mobile device corresponded to the geographic location corresponding to the element of the content result set, or a business location of the advertiser. This allows advertisers to see the different periods of time people spend at their business locations.” Busch ’815 at [0278].<br><br>“Methods and systems are disclosed for providing customized content to users based on their location. In one embodiment, for each of one or more content providers, a customized content delivery function receives information from the content provider defining a number of geographic shapes selecting corresponding geographic areas. Preferably, each of the geographic shapes overlaps at least one other of the geographic shapes and is assigned an importance level. For each geographic shape, the content provider defines one or more tags for the geographic shape and assigns a weight to each of the one or more tags. Thereafter, when a request is received from a requestor, one or more content items are selected for delivery to the requestor based on the geographic shapes, the tags and corresponding weights for the geographic shapes, and the location of the requestor.” Svendsen ’073 at Abstract. |

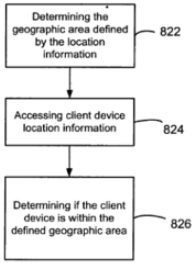
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| |  <br>Svendsen ’073 at Fig. 1. |

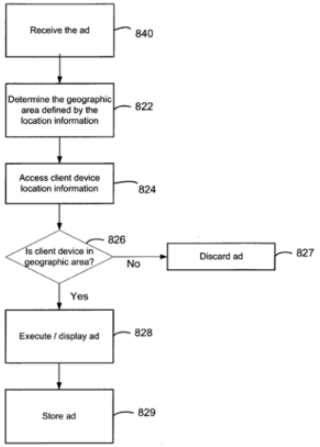
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| |  <br>***FIG. 2A***<br>Svendsen ’073 at Fig. 2A.<br>  <br>***FIG. 4D***<br>Svendsen ’073 at Fig. 4D.<br>“As an example, FIG. 2A illustrates exemplary geographic shapes 10 through 16 defined by a content provider according to one embodiment of the present invention. While not shown, the geographic shapes 10 through 16 are combined with or overlaid upon a map or similar data structure to identify the corresponding geographic areas. Each one of the geographic shapes 10 through 16 overlaps or intersects at least one other |

| POINT | INTERSECTING SHAPES | KEYWORDS | BID |
|---|---|---|---|
| 42 | 26, 28 | Change = 80, NAFTA = 30, election = 100, experience = 20, job loss = 50, trade deficit = 25 | 305 |
| 44 | 32, 34 | Change = 80, NAFTA = 30, election = 100, experience = 20, trade deficit = 80 | 310 |

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| | one of the geographic shapes 10 through 16, and each one of the geographic shapes 10 through 16 is assigned an importance level, or z-order value. In this example, the content provider has assigned the keyword Red with a weight of 80 and the keyword Blue with a weight of 30 to the geographic shape 10, which is also referred to as Shape A. In other words, the content provider has tagged the geographic shape 10 with the keywords Red and Blue. The content provider has assigned the geographic shape 10 a z-order value of 0, thereby setting the geographic shape 10 to a lowest importance level. Likewise, the content provider has assigned the keyword White with a weight of 50 to the geographic shape 12, which is also referred to herein as Shape B, and assigned the geographic shape 12 a z-order value of 1. The content provider has assigned the keyword Blue with a weight of 90 to the geographic shape 14, which is also referred to herein as Shape C, and assigned the geographic shape 14 a z-order value of 2. Lastly, the content provider has assigned the keyword Green with a weight of 10 and the keyword Red with a weight of 20 to the geographic shape 16, which is also referred to herein as Shape D, and assigned the geographic shape 16 a z-order value of 3.” Svendsen ’073 at 3:35–63.<br><br>“FIGS. 6A through 6C graphically illustrate the process of FIG. 5 according to one embodiment of the present invention. FIG. 6A illustrates geographic shapes defined by a content provider to select geographic areas of interest to the content provider.” Svendsen ’073 at 9:62–66.<br><br>“As discussed above, an account of a content provider includes information defining geographic shapes defined by the content provider and, for each content item of the content provider, one or more keywords assigned to the content item. In addition, for each geographic shape defined by the content provider, the account of the content provider includes keywords assigned to the geographic shape as well as weights for those keywords. Lastly, the account may include a z-order, or importance level, for each of the geographic shapes.” Svendsen ’073 at 13:52–60.<br><br>*See also* Svendsen ’073 at Fig. 4A, Fig. 4B, Fig. 4C, 3:11–34, 4:48–67, 7:63–8:4, 10:3–12, 13:41–52, and 14:19–23.<br><br>To the extent that the charted references do not disclose any elements of this claim limitation, this limitation is rendered obvious in light of the charted reference by itself, the charted reference combined with the knowledge of a person or ordinary skill in the art, and/or the references disclosed in these invalidity contentions, including one or more of the references charted. How each of these references discloses and/or renders obvious this limitation is set forth in these claim charts. All of these disclosures also would have been within the knowledge of a POSITA. Doing so would have been within the abilities of one of skill in the art, |

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| | would not have required undue effort, would have been compatible with the functionality of the charted references, and would have led to expected results. |
| [1g] receiving, from the sponsor, content to be delivered to registered application programs having target locations contained within the selected one of the plurality of geographic areas; | The following prior art expressly or inherently discloses and renders obvious “receiving, from the sponsor, content to be delivered to registered application programs having target locations contained within the selected one of the plurality of geographic areas.” For example:<br>  <br><br>Fig. 7B<br>Chmaytelli ’453 at FIG. 7B. |

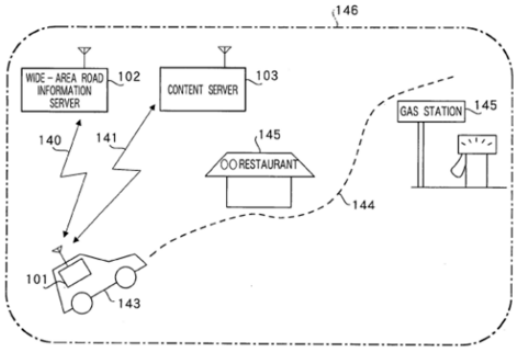
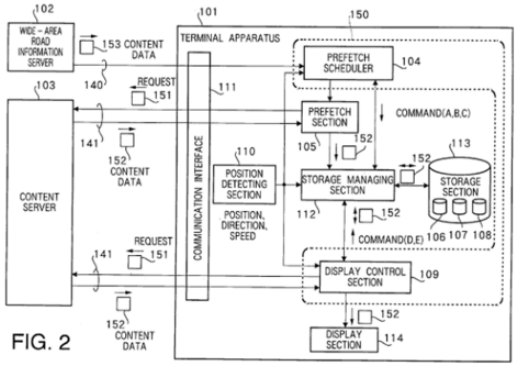
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| |  <br>Fig. 8B<br>Chmaytelli ’453 at FIG. 8B. |

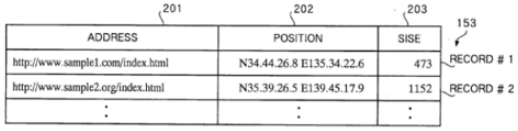
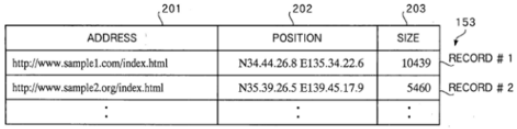
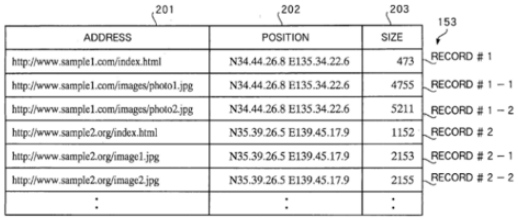
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| |  <br>Fig. 8C<br>Chmaytelli ’453 at FIG. 8C.<br>“The client device location can be determined, for example, based on data contained at the client device, data contained at the carrier and/or location data communicated to the carrier or other remote server. For example, in FIG. 7A, an external location system 730 can be accessed by the client device 300. Specifically, CAM 310 can acquire position data from visible GPS satellites 732, once received the position data can be relayed to a position determination entity (PDE), e.g., a server in the carrier network. The PDE 734 can then analyze the position data and determine the location of the client device 300. The location (e.g., longitude, latitude, and optionally altitude coordinates) of the client device 300 can then be stored at a remote server and/or communicated to the client device 300, for storage and/or use by CAM 310. For example, CAM 310 can use the longitude and latitude coordinates to determine if the client device 300 is within the designated geographic area defined by the location data in the ad.<br>Alternatively, the device location can be determined at the client device 300 and external servers do not need to know the specific location of the client device, which may provide more privacy for the,end-user. For example, the location of the client device 300 can be determined from visible GPS satellites 732 solely at the client device, using known techniques. In this embodiment, there is no need to transmit location data or related information to a remote server for further processing. Accordingly, the location information associated |

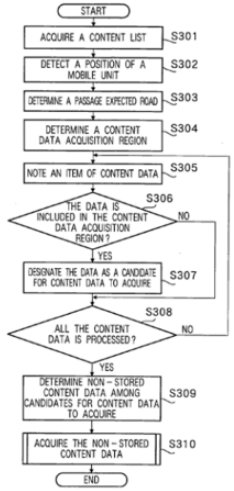
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| | with the ad can be used by the client device to determine whether the client device is within the targeted geographic area defined by the location information transmitted in the ad. If the client device determines that it is not within the targeted area, the ad can be discarded, without interrupting the end-user.<br><br>Alternatively, in another embodiment of the invention, an ad contains location information that can be used to define a geographic area. Client devices within the targeted area (i.e., the defined geographic area) can be identified from the location information stored on a server in the carrier network. For example, a CAM enabled client device can periodically report the location of the client device or execute an application to provide location data to a remote server that can calculate the location of the client device. The stored location information can be a table, for example, containing longitude and latitude coordinates for each client device. When an ad is generated containing location information to define a geographic area of interest (e.g., longitude and latitude coordinates of four points defining a rectangular area), a server can use the stored client location information to identify the client devices in the targeted area. Then the ad can be sent to the client devices that are identified. Although the ad location information does not have to be transmitted to the client device in this embodiment, the location information can still be used by the CAM system on the client device for inbox maintenance (e.g., to delete messages when the client device is out of the targeted area) as discussed above. Alternatively, if the client device location is monitored at a remote server, then the ad generation system can generate another message that directs the CAM system on the client device to delete the previously sent ad when the client device location is outside the targeted area. Additionally, a message that directs the CAM system on the client device to delete a specific previously sent ad can be event-based, such as deleting a promotional ad once all available promotional items are sold. Accordingly, this aspect can be used regardless of whether the client device location data is maintained locally or remotely.<br><br>The process of identifying the client device location can include many variations and sub-processes. For example, the device location can be determined by accessing client device location information. Then, the client device location can be used to determine if the client device is within a geographic area defined by the location data in the ad. The location information can be stored locally at the client device and/or remotely (e.g., at a server on the carrier network). Likewise, the determination as to whether the client device is within the geographic area can be determined at either the client device or a remote server. The client device location information can include longitude and latitude coordinates of the client device. Likewise, the location data in the ad can include center longitude and center latitude coordinates and a radial distance. The geographic area can then be determined as longitude and latitude coordinates that are within the radial distance from the center longitude and the center latitude coordinates. Alternatively, the location data in the ad can include at least three longitude and latitude coordinates, which define an area (e.g., triangle, square, and rectangle). The |

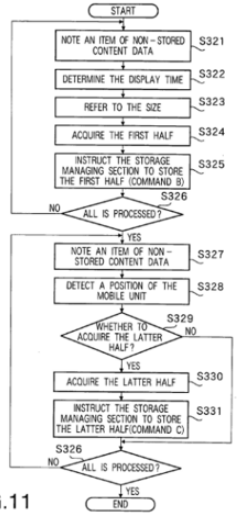
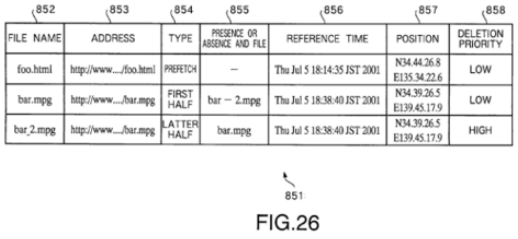
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| | geographic area can then be determined as longitude and latitude coordinates that are within the area defined by the at least three longitude and latitude coordinates.<br><br>Further, depending on the accuracy desired, base stations and/or communication towers can be used to determine the targeted client devices. In this embodiment, the location data generated in the ad can be used to define a geographic area as discussed above. Then, client devices communicating with base stations/communication towers within the defined geographic area can be considered to be within the targeted geographic area and would be sent the ads. However, this aspect can be used in combination with the previously discussed methods for delivering location-based ads.<br><br>For example, instead of transmitting the ads directly, a “wake-up” message can be sent to the client devices that invoke the CAM system on each client device, which reports the location of the client device. The updated location information can be used by the server to then target only those devices that are actually within the targeted geographic area. Alternatively, client devices communicating with the identified base stations/communication towers can be sent the ad and the CAM system on the client device can use the local geographic location data or obtain a geographic location. Using its geographic location and the geographic area defined in the ad, the client device can determine if it is within the targeted area, as discussed above. Using the base station/communication tower as a first level of granularity to identify a client device can further reduce the network traffic and focus the ads to client devices that are most likely within the targeted geographic area.” Chmaytelli ’453 at [0078]–[0083].<br><br>“FIG. 8B is a flowchart illustrating a method for identifying client devices based on the geographic area defined by the location data in the ad. In block 822, the targeted geographic area is determined using the location data contained in the ad. As discussed above, this determination can be performed at the client device, a server on the carrier network, and/or other remote server. The client device location information is accessed, in block 824. Once again this can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. Further, accessing the data can include any of the methods discussed herein (e.g., accessing previously stored geographic position data in the client device or on a server remote to the client device, initiating a location API resident on the client device to obtain the location of the client device (e.g., using gpsOne®), and the like). Then, in block 826, the geographic position of the client device can be compared with the targeted area to determine if the client device is within the targeted area. Likewise, this determination can be performed at the client device, a server on the carrier network, and/ or other remote server, as previously discussed. |

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| | For example, FIG. 8C illustrates an embodiment of the invention where the client device determines if it is in the targeted geographic area. In this configuration, as discussed above, the sequence of actions are different than illustrated in FIG. 8A, in that the ad is received at the client device (e.g., 840) before the client device is identified (e.g., 820) as being in the targeted geographic area. Alternatively, the client device can be identified at a first level, such as by base station/communication tower, city, region, or other generally broad geographic zones, in block 820. Then, the process illustrated in FIG. 8C, can be a further refinement performed at the client level after the ad has been received.<br><br>In describing FIG. 8C, like functions will retain the same reference number. Accordingly, blocks 822, 824 and 826 operate as discussed above; however, at the client device. If the client device receives an ad, but it is not in the targeted geographic area, the ad is discarded, block 827. If the client device is in the targeted geographic area than the ad is displayed or the associated instruction is executed (e.g., start browser and download specified page), block 828. The term display can include any type of notification, such as text and/or graphic display on a display unit, indicator lights, audible signal (e.g., buzzer, ringer, voice message, and the like), vibration, and combinations of the foregoing. The message can be stored for recall at a later time, in block 829. Once stored the ad can be recalled automatically on a periodic basis, or at a user's request. Further, the ad can be stored in a designated inbox for management by the user and/or automatic inbox management by the CAM, as previously discussed.” Chmaytelli ’453 at [0085]–[0087].<br><br>*See also* Kinoshita ’866 at Fig. 1, Fig. 3, Fig. 4, Fig. 5, Fig. 6, Fig. 7, Fig. 8, Fig. 9, Fig. 10, Fig. 11, Fig. 12, [0043], and [0100].<br><br>“Other information can be provided from commercial organizations, such as shopping malls that upload mall layout information and individual stores that provide information about sales or other relevant data. It should be noted that this information can be collected worldwide and the data associated with the disclosed embodiments is not limited to one area or country. Additionally or alternatively, the information relating to the businesses can be presented to the user based on the user's actual location or based on a mapping area viewed by the user. In such a manner, a user can receive business information for a geographic region of interest to the user (e.g., planning a vacation or business trip).” Smith ’558 at [0079].<br><br>“Overwrite component 604 might further be configured to modify map features based on advertiser information 610. Advertisers can purchase advertisements in the display space utilizing a per diem scheme, a click through scheme, any other scheme or combination of schemes. Advertisements can also be purchased based on geographic location. Such geographic location can be the actual physical location of the user or |

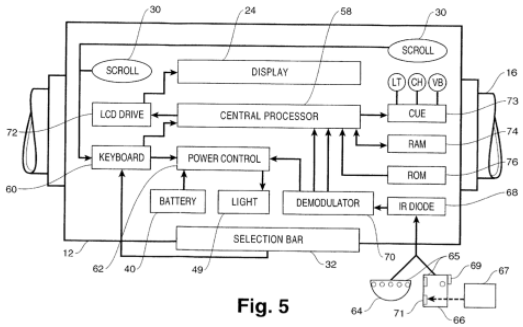
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| | alternatively can be the geographic area that the user is viewing, which may not be the same as the physical location of the user.” Smith ’558 at [0117].<br>  <br><br>FIG. 1<br>Sato ’965 at Fig. 1.<br>  <br><br>FIG. 2<br>Sato ’965 at Fig. 2. |

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| |  <br><br>FIG. 3<br>Sato ’965 at Fig. 3.<br>  <br><br>FIG. 4<br>Sato ’965 at Fig. 4.<br>  <br><br>FIG. 5<br>Sato ’965 at Fig. 5. |

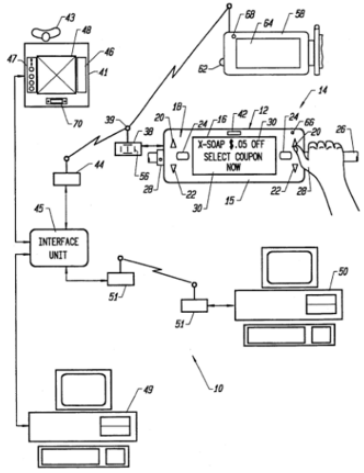
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| |  <br>FIG. 6<br>Sato ’965 at Fig. 6. |

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| |  <br>FIG.11<br>Sato ’965 at Fig. 11.<br>  <br>852 853 854 855 856 857 858<br>FILE NAME / ADDRESS / TYPE / PRESENCE OR ABSENCE AND FILE / REFERENCE TIME / POSITION / DELETION PRIORITY<br>foo.html / http://www..../foo.html / PREFETCH / – / Thu Jul 5 18:14:35 JST 2001 / N34.44.26.8 E135.34.22.6 / LOW<br>bar.mpg / http://www..../bar.mpg / FIRST HALF / bar – 2.mpg / Thu Jul 5 18:38:40 JST 2001 / N34.39.26.5 E139.45.17.9 / LOW<br>bar_2.mpg / http://www..../bar.mpg / LATTER HALF / bar.mpg / Thu Jul 5 18:38:40 JST 2001 / N34.39.26.5 E139.45.17.9 / HIGH<br>851<br>FIG.26<br>Sato ’965 at Fig. 26.<br>“Content server 103 transmits content data (see FIG. 2) to terminal apparatus 101. The content data expresses content related to positions of facilities 145. For example, such content may be advertising information of facilities 145. Content may be road information or sightseeing information that is not related to facilities 145. In other words, the content is in relation to a position (for example, position in which each of facilities 145 is present) inside predetermined region 146.” Sato ’965 at [0054]. |

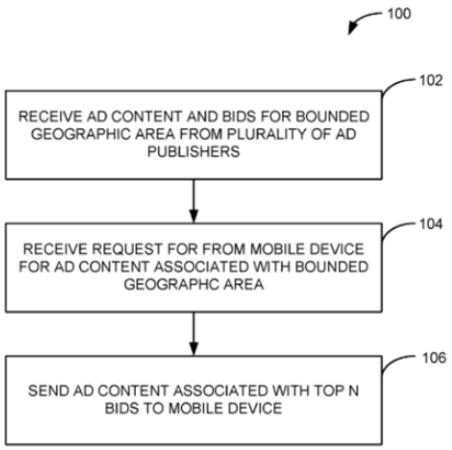
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| | “Terminal apparatus 101 receives the content data that expresses such content to display.” Sato ’965 at [0055].<br><br>“A plurality of records is described in content list 153. Each of the records corresponds to an item of content data.” Sato ’965 at [0074].<br><br>““Address” field 201 stores an address of content data 152. The address of the content indicates, for example, a storage location of the content in content server 103 (FIG. 1). Otherwise, when a network such as the Internet exists between terminal apparatus 101 and content server 103, an address of content data 152 is an address for uniquely specifying a storage location of content data 152 on the network, for example, a URL address.” Sato ’965 at [0076].<br><br>“In the example as shown in FIG. 3, an address of a top page is described in “address” field 201. When content data 152 includes part of images or the like, prefetch scheduler 104 (see FIG. 2) acquires content list 153, and obtains an address of the part by analyzing the top page.” Sato ’965 at [0078].<br><br>““Position” field 202 stores a position inside region 146 (see FIG. 1) to which is related the content expressed by content data 152.” Sato ’965 at [0079].<br><br>“In the example as shown in FIG. 3, the position inside region 146 is represented by the latitude and longitude. In addition, a mode for representing a position inside region 146 is not limited to the foregoing. Further, a position inside region 146 to which content is related is called a “content position” in this specification.” Sato ’965 at [0080].<br><br>“Prefetch section 105 in terminal apparatus 101 acquires non-stored content data from content server 103.” Sato ’965 at [0114].<br><br>“The content of content data 152 is displayed in region 1108. In the example as shown in FIG. 20, content data 152 is advertising information of a restaurant.” Sato ’965 at [0240].<br><br>“Content data 152 is first stored in content server 103 (stage 1000)” Sato ’965 at [0284].<br><br>*See also* Sato ’965 at Fig. 7, Fig. 8, Fig. 9, Fig. 10, and [0172].<br><br>*See also* Ahn ’281 at [0095]. |

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| |  <br>Fig. 5<br>Begum ’880 at Fig. 5.<br>“The advantage of this system is that each display unit on each shopping cart is updated as it passes within range of the locationally specific transmitting unit. When promotional items are replaced or updated, only the promotional graphic of the specific transmitting unit being updated need be replaced. This system also has the advantage of enabling a shopper to access the memory file of stored screen graphics in his shopping cart display unit and scrolling through the promotional graphics to review the items that may be on sale.” Begum ’880 at 2:13–22.<br>“External components such as an IR beacon 64 and an IR trigger component 66 direct infrared data signals and wake-up signals to the IR photodiodes 68 of the radiation window 36a on the display unit 12. The data signals provide information for reprogramming the memory of inventory and sales information and screen display of activated advertisement and promotional visuals. The IR beacon 64 may also emit a power transmission signal for charge maintenance of the battery pack 40. The IR beacon 64 and trigger component 66 form a transceiver unit 65 for receiving, storing and relaying trigger and data signals from a control unit 67, that centralizes the storewide operation of the system.” Begum ’880 at 8:36–47.<br>“The trigger and data signals are demodulated in a converter circuit 70 and passed to the central processor 58 for reprogramming the memory or activating retrieval of memory packets for display of advertising information in the display screen 24 under control of the LCD driver and controller circuit 72.” Begum ’880 at 8:48–53.<br>“Customarily, each store would have a single control unit 67 that is the central computer for management of the stores inventory and accounting. The control unit 67 communicates with a plurality of transceiver units 65 located throughout the marketing area. Preferably, to minimize installation expenses and allow the plurality of |

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| | transceiver units 65 to be repositioned in the marketing area as desired, each transceiver unit 65 is in wireless communication with the control unit 67 and has its own power supply. Essentially, the transceiver unit 65 includes the same electronic components as the display unit 12 which allows for independent processing of data and independent communication with a display unit 12 on a nearby shopping cart. ” Begum ’880 at 8:56–9:1.<br><br>“To conserve power in the transceiver unit 65, the transceiver unit includes a proximity sensor 69 that detects the presence of a shopping cart within range and initiates transmission of the trigger and data signals to the unit 12 on the cart handle. The transceiver unit 65 also includes an RF receiver 71 to receive FM radio frequency transmissions from the central control” Begum ’880 at 9:1–7.<br><br>“The digitized screen graphic is stored in a file in the memory of the transceiver unit 65, and is periodically updated or replaced by transmissions from the control unit 67.” Begum ’880 at 9:52–55.<br><br>“With the display unit 12 awakened, the data signals are processed by the central processor 58 and the data relating to the screen graphic is compared with existing promotional screen graphics stored in RAM 74. The comparison of digitized screen graphics may be accomplished with a rapid checksum procedure. If a match is found, the screen graphic data is passed from a temporary storage buffer in the central processor 58 to the LCD driver 72 for display on the display screen 24. In the event that there is no match, the processor 58 processes the formatted screen data to the LCD driver 72 for display on the display screen 24 and contemporaneously passes the screen graphic display data together with the accompanying product control data to RAM 74. The screen graphic data and product control data are stored in memory for future comparison with received screen display signals or retrieval by a shopper reviewing the file of product promotions.” Begum ’880 at 9:66–10:15.<br><br>*See also* Begum ’880 at Fig. 9, 1:60–2:5, 2:6–12, 4:33–38, 4:65–5:4, 5:65–6:4, 6:18–37, 9:8–11, 9:12–16, 9:16–29, 9:46–51, 9:56–65, 10:16–31, 10:32–35, 10:41–51, and 10:52–11:3. |

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| |  <br>FIG. 1<br>Begum ’606 at FIG. 1.<br>“Traffic manager 131 may receive, for example, data representing definitions of a campaign of serving content items, and may generate campaign-related data. Traffic manager 131 may control and manage one or more campaigns of serving content items, including content items (“creatives”) provided by one or more users, e.g., advertisers, advertising agencies, customers, or the like.” Levkovitz ’852 at [0107].<br>“As indicated at box 220, the method may optionally include, for example, receiving the content request by communicator 150. This may include, for example, storing the content request in volatile memory 159 of communicator 150. Optionally, multiple content requests may be stored and/or processed using one or more queues.” Levkovitz ’852 at [0181].<br>*See also* Levkovitz ’852 at [0159], [0272], and [0273].<br>“Operator Features<br>Create Text Alerts<br>Operator enters Daily Deal information for each product category. A single template for text messages is used for all carrier/device/category combinations. |

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| | Save Alert<br><br>Once the Operator has created a text alert, the data can be saved as a draft. For example, only one draft can be saved for each category.<br><br>Preview Text Alerts<br><br>The Operator is required to preview the text message before publishing it for distribution. The Operator can preview each text alert on a web page. The Operator shall be able to preview both newly created alerts and saved alerts.<br><br>Edit Text Alerts<br><br>Operators shall be able to view saved alerts and edit them prior to the preview/publish process.<br><br>Publish Text Alerts<br><br>By clicking a “Publish” button for each text alert, the Operator indicates that content has been finalized and is ready for distribution to subscribers.<br><br>The system automatically suppresses old alerts from the Operator user interface, so only a single alert can be saved for each category at one time.<br><br>Operators, for example, may not be able to set publish dates.<br><br>The system will not notify the Operator if they forget to publish saved alerts or if they forget to publish all categories.” Sanctis ’837 at [0086]–[0099].<br><br>*See also* Sanctis ’837 at Fig. 1. |

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| |  <br>FIG. 1<br>Bussmann ’294 at FIG. 1. |