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Moon

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(54) **PRESENTING INFORMATION TO MOBILE TARGETS**

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(52) **U.S. Cl.** **340/425.5**

(58) **Field of Search** 340/905, 901, 340/902, 425.5, 539; 701/207, 208

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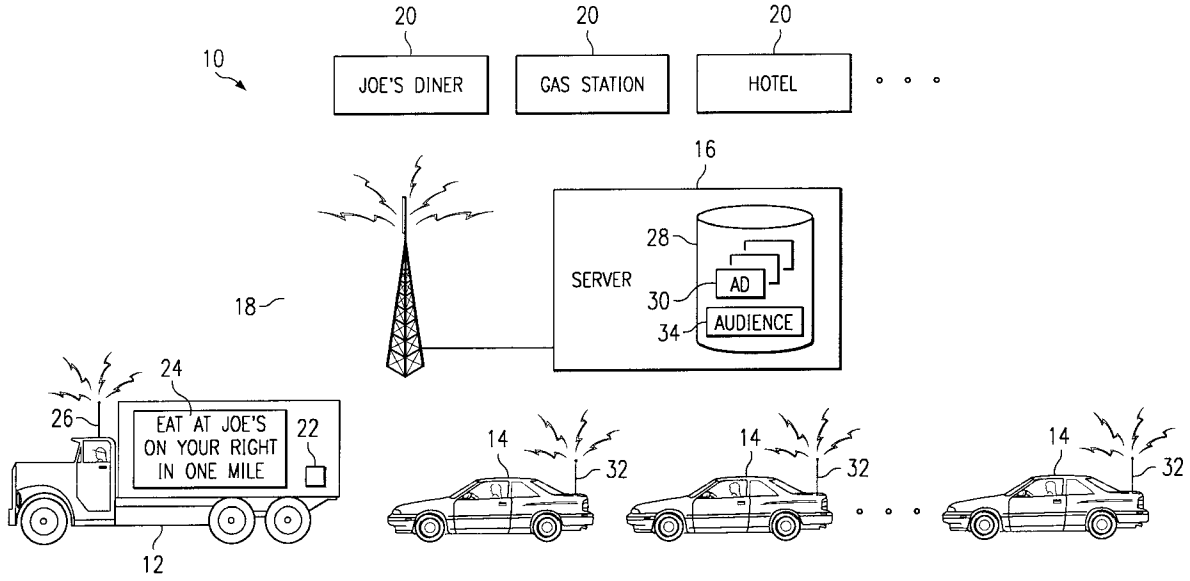
(57) **ABSTRACT**

An advertising system includes a mobile apparatus that determines location information and presents an advertisement based on the location information. The system may also include an output device that presents a selected advertisement based on audience information associated with mobile advertising targets.

33 Claims, 3 Drawing Sheets



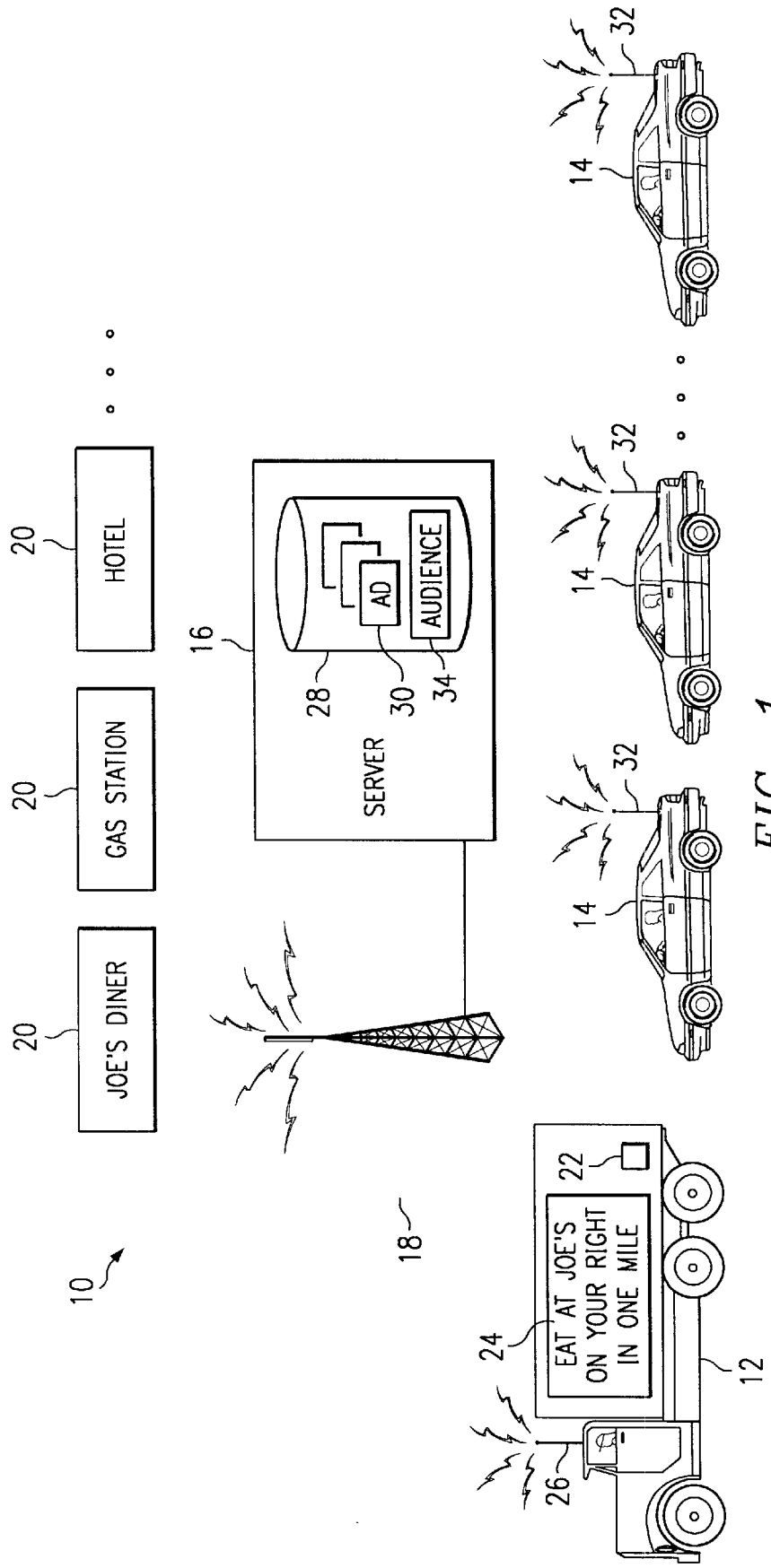

10
20
JOE'S DINER
20
GAS STATION
20
HOTEL
16
SERVER
28
AD
30
AUDIENCE
34
18
EAT AT JOE'S
ON YOUR RIGHT
IN ONE MILE
22
24
26
12
14
32
14
32
14
32

FIG. 1

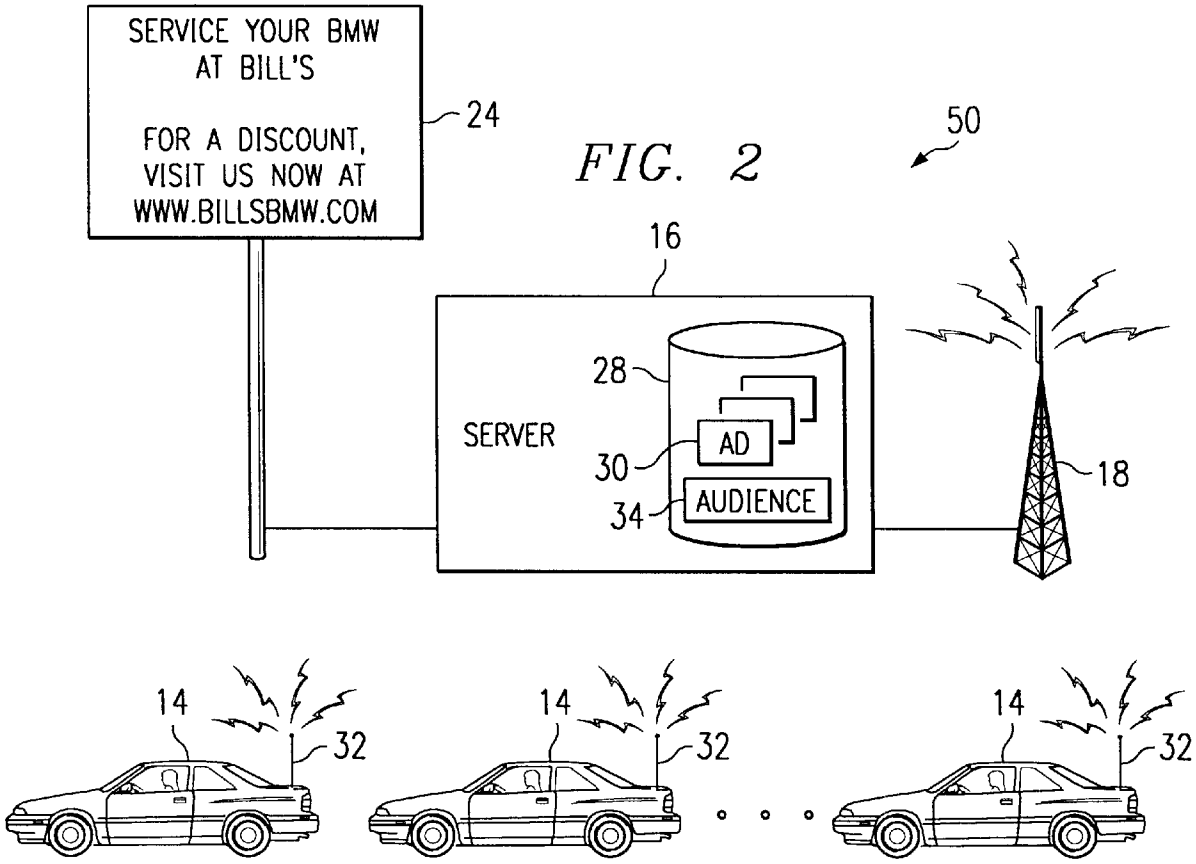

SERVICE YOUR BMW
AT BILL'S
FOR A DISCOUNT,
VISIT US NOW AT
WWW.BILLSBMW.COM
24
50
16
28
SERVER
AD
30
AUDIENCE
34
18
14
32
14
32
14
32

FIG. 2

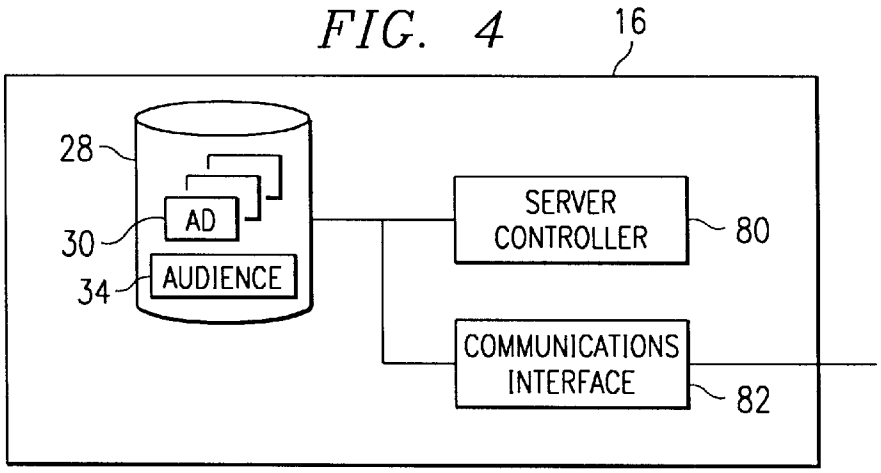

16
28
AD
30
AUDIENCE
34
SERVER
CONTROLLER
80
COMMUNICATIONS
INTERFACE
82

FIG. 4

FIG. 3

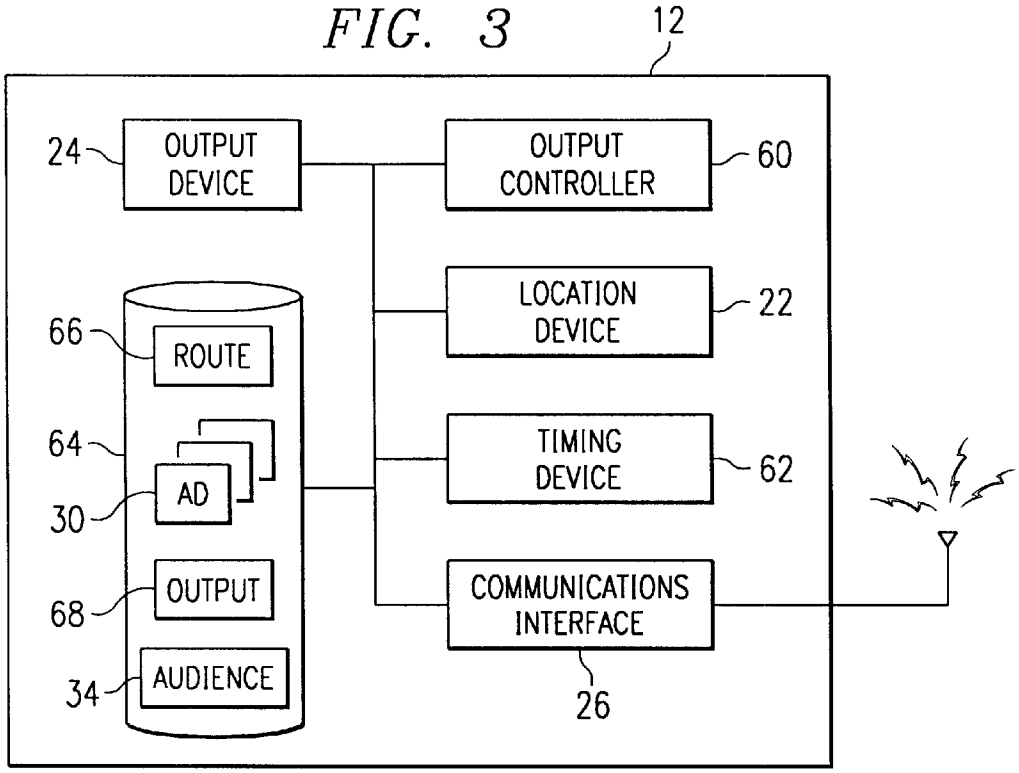


FIG. 5

68

LOCATION	TIME	AUDIENCE	PRIORITY	ADVERTISEMENT
X	07:00–09:00	ANY	MEDIUM	1
	11:00–13:00	A,B,C	HIGH	2
	11:00–13:00	ANY	MEDIUM	3
	ANY	ANY	LOW	4
Y	ANY	ANY	LOW	5
	ANY	D	HIGH	6
⋮	⋮	⋮	⋮	⋮

PRESENTING INFORMATION TO MOBILE TARGETS

TECHNICAL FIELD OF THE INVENTION

The present invention relates generally to information systems and more particularly to presenting information to mobile targets.

BACKGROUND OF THE INVENTION

Merchants spend vast sums each year attempting to deliver appropriate advertisements to a receptive audience. These merchants use many different marketing techniques and forms of media to present effective advertisements. Each day these advertisements flood our society through traditional methods such as billboards, television, and radio and through new high-tech media such as the Internet. However, merchants are consistently challenged to craft effective advertisements and to deliver these advertisements to a receptive audience.

SUMMARY OF THE INVENTION

In accordance with the present invention, techniques for presenting information to mobile targets are provided which substantially eliminate or reduce disadvantages and problems associated with previous techniques. In a particular embodiment, the present invention satisfies a need for a mobile advertising apparatus that determines a physical location and presents a selected advertisement based on the physical location.

According to one embodiment of the present invention, a mobile advertising apparatus includes a location device that determines a physical location of the apparatus, a controller that determines an advertisement based on the physical location, and an output device that presents the advertisement. More specifically, the mobile advertising apparatus may use a global positioning system (GPS) unit as the location device.

In accordance with another embodiment of the present invention, an advertising system includes a memory storing advertisements, an output device, and a controller for use in sending advertising to mobile advertising targets within an effective range of the output device. The controller identifies the mobile advertising targets, determines audience information associated with the mobile advertising targets, and selects one of the stored advertisements based on the audience information. The output device then presents the selected advertisement.

The invention provides a number of technical advantages. Using these techniques, merchants and advertisers may more effectively present advertisements to moving targets. For example, a mobile dynamic billboard, by determining its physical location, may present advertisements appropriate for that geographic region, such as for restaurants, hotels, or gas stations in the area. These advertisements may also be linked to specific times of day, such as advertisements for restaurants at dinner time and hotels later at night. In addition, these advertising systems may select advertisements based on audience information of mobile advertising targets. For example, the system may determine information associated with cars in a position to view an advertisement and display an advertisement based on that information. The advertisement displayed may then change as the composition of the audience changes. Thus, these advertising systems may present highly focused advertisements selected by combining location, time, audience, and/or other suitable information.

These advertisement systems may also be integrated into vehicles. For example, a dynamic billboard may be positioned on a long-haul truck, with an advertisement displayed based on location, time, and/or audience information. This dynamic billboard may be integrated with currently available systems on some vehicles, such as tracking devices and communications equipment. In addition, advertisements may link to additional information and services delivered by these advertising systems. For example, an advertisement for a song could direct a recipient to tune to a radio station to hear a sample or to visit a website to download an MP3 sample of the song. These examples clarify only particular advantages of the present invention. Other technical advantages will be readily apparent to one skilled in the art from the following figures, descriptions, and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

For a more complete understanding of the present invention and its advantages, reference is now made to the following descriptions, taken in conjunction with the accompanying drawings, in which:

FIG. **1** illustrates an advertising system including a mobile advertising apparatus for presenting targeted information;

FIG. **2** illustrates an advertising system for presenting targeted information based on audience information;

FIG. **3** is a block diagram illustrating the apparatus for presenting targeting information;

FIG. **4** is a block diagram of a server for managing and controlling the presentation of targeted information; and

FIG. **5** is a table illustrating exemplary information used to select targeted information to present.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

FIG. **1** illustrates an advertising system, indicated generally at **10**, that includes a mobile advertising apparatus **12** for presenting targeting information to advertising targets **14** and a server **16** coupled to a base station **18** providing wireless communications. System **10** also includes merchants **20** who have subscribed to have advertisements presented by apparatus **12**. In general, apparatus **12** determines location information using a location device **22** and presents an advertisement using an output device **24** based on the location information.

Apparatus **12** includes location device **22** and output device **24** and represents any hardware and/or software for presenting selected advertisements. Apparatus **12** may also include a communications interface **26** for wireless communications with other devices in system **10**, such as communications with server **16** via base station **18**. Apparatus **12** may be integrated with or implemented by components of a vehicle, radio, television, computer, personal digital assistant (PDA), mobile telephone, or other suitable equipment. Server **16** represents hardware and/or software that aids in operation, administration, and management of components in system **10**, and may control and/or support apparatus **12**. For example, server **16** may contain a server memory **28** storing advertisements **30** for presentation by apparatus **12**. The components and operation of apparatus **12** and server **16** are discussed in greater detail with respect to FIGS. **3** and **4**.

Advertising targets **14** represent equipment and/or people intended to receive advertisements presented by apparatus **12**. For example, targets **14** may be automobiles, radios, televisions, computers, personal digital assistants (PDAs), or

other equipment or users of this equipment where appropriate. Targets **14** may passively receive advertisements presented by apparatus **12** or may actively communicate information with apparatus **12**, server **16**, or other components in system **10** using a target interface **32**. For example, target interface **32** may support Internet access allowing interactive sessions or may be a transponder, such as a toll-tag, providing identifying information or signals. System **10** contemplates target interface **32** supporting any appropriate interactions with apparatus **12** and server **16** using suitable communications protocols. Moreover, various targets **14** may include different types of target interfaces **32**, and system **10** contemplates using multiple systems for identifying various targets **14**. Merchants **20** represent users of the advertising services provided by apparatus **12**. Thus, merchants **20** may be any equipment or entity providing information or content for delivery to targets **14** using apparatus **12**.

In operation, apparatus **12** uses location device **22** to determine a physical location. Based on this location, apparatus **12** determines and presents an advertisement using output device **24**. To present the selected advertisement, apparatus **12** may use any suitable means for delivering information. Thus, output device **24** may be a visual display device, an audio output device, a radio transmitter or any other device appropriate for making information available to targets **14**. Moreover, output device **24** may use multiple techniques for delivering information to targets **14**. For example, output device **24** may include a billboard that directs targets **14** to access additional information delivered via a separate communications technique, such as a short range radio broadcast or a wireless local area network (LAN).

Apparatus **12** may use any suitable technique for determining an appropriate advertisement to present based on location information. For example, apparatus **12** may select an advertisement based on proximity to a specific merchant **20** responsible for the advertisement. To enable selection of an advertisement, apparatus **12** or server **16** may maintain a table mapping advertisements to specific geographic regions. Thus, for example, a vehicle equipped with apparatus **12** could display targeted advertisements based on its current physical location. In addition, apparatus **12** may use other information to fine tune the advertisement selected. Using information such as the current time or the composition of targets **14**, apparatus **12** may select and present an appropriate advertisement.

In a particular embodiment, apparatus **12** uses the current time, in addition to location, to aid in determining an appropriate advertisement. For example, around dinnertime, apparatus **12** may present advertisements for nearby restaurants, while later in the evening, apparatus **12** may present advertisements for hotels in the area. According to another embodiment, system **10** may capture audience information associated with targets **14** and use this information in combination with the location information to determine an advertisement to present. For example, targets **14** may have target interfaces **32**, such as toll-tag transponders installed in many automobiles, that provide identifying information or signals. Therefore, target interfaces **32** may allow apparatus **12**, server **16**, or other suitable equipment to associate targets **14** with audience information. Thus, to more finely tune the advertisements presented, apparatus **12** may determine audience information **34** associated with targets **14** and integrate this information with location information to determine an appropriate advertisement. Audience information **34** may include profiles associated with individual targets **14**, group profiles associated with a type of target **14**, or other appropriate audience characteristics for selecting from advertisements **30**. Furthermore, audience information **34** may include a database of characteristics and information for potential audience targets that server **16** or other equipment accesses to determine information associated with targets **14**.

Thus, an advertisement may be selected based on a physical location in addition to the current audience. For example, if targets **14** include a high percentage of luxury automobiles, advertisements may be directed to a more affluent market, while a prevalence of inexpensive or unidentifiable cars may call for a different type of advertisement. In addition, the advertisement selected and presented may change based on the changing composition of targets **14**. To alleviate privacy concerns, system **10** contemplates various methods for virtually anonymous association of targets **14** to audience information **34**. Targets **14** may be associated with group or individual profiles of audience information **34** without requiring a precise identity to be associated with target **14**. For example, a system similar to Internet "cookies" may be implemented to anonymously associate audience information **34** with targets **14**, or a particular target **14** may be associated with a large group, such as truck owners. However, system **10** contemplates using any suitable techniques and/or equipment for associating some or all of targets **14** with audience information **34**.

In addition, system **10** contemplates using any suitable combination of criteria, such as location, time, and audience information **34**, to determine an appropriate advertisement for presentation using apparatus **12**. Furthermore, while these examples involve apparatus **12** selecting an advertisement to present, any component in system **10** may select one or more advertisements for presentation. For example, server **16**, in communication with apparatus **12**, may select from advertisements **30** using any suitable information and technique.

While apparatus **12** may act autonomously, it may also share tasks and information with other devices through wireless communications using interface **26**. In a particular embodiment, server **16** may provide a centralized storehouse of advertisements **30** using server memory **28**, and may additionally select advertisements for presentation based on location information uploaded from apparatus **12**. For example, apparatus .**12** may determine a current physical location using location device **22** and then communicate this location to server **16** using a wireless link between communications interface **26** and base station **18**. Server **16** may then access advertisements **30** stored in server memory **28** to determine an appropriate advertisement for the geographic location of apparatus **12**. Server **16** then downloads the selected advertisement **30** using the wireless link for display by apparatus **12**.

However, system **10** contemplates using any suitable components, distributed or concentrated, for storing advertisements **30** and audience information **34** and for determining an appropriate advertisement **30** to present. For example, apparatus **12** may store advertisements **30** and/or audience information **34** in a local memory and/or make determinations as to an appropriate advertisement to present. Moreover, apparatus **12** may download and store some or all of advertisements **30** from server **16** at any appropriate time based on a planned route or other information. While apparatus **12** may operate without using a communications link to server **16**, the use of server **16** would allow for centralized control, decision making, and management of multiple apparatuses **12** at different physical locations.

Wireless communications between communications interface **26** and base station **18** may use any one or combination of suitable wireless communications protocols. For example, base station **18** may be a digital or analog cellular base station, a satellite, a wireless local area network (LAN) station, or any other suitable equipment for wireless communications with apparatus **12**. Moreover, communications interface **26** may support multiple forms of wireless communications. Therefore, base station **18** may represent multiple devices at various locations providing wireless communications with apparatus **12** using a variety of communications protocols. While the preceding discussion focuses on particular functionalities for specific components, system **10** contemplates any suitable distribution or combination of functions and components that includes a mobile apparatus for presenting advertisements based on its physical location.

FIG. **2** illustrates an alternative embodiment of an advertising system, indicated generally at **50**, in which output device **24** presents advertisements based on audience information associated with targets **14**. System **50** includes output device **24**, server **16**, base station **18**, and targets **14**. In general, server **16** uses base station **18** to determine audience information **34** associated with targets **14** within an effective range of output device **24**. Based on this audience information **34**, server **16** selects one of advertisements **30** from server memory **28** and presents the selected advertisement **30** using output device **24**.

In operation, some or all of targets **14** are equipped with target interfaces **32** that enable server **16** to determine associated audience information **34**. For example, targets **14** may be automobiles equipped with toll-tag transponders, and base station **18** may represent equipment at a toll booth identifying each target **14**. Server **16**, using any suitable technique, uses these identifications to determine associated audience information **34**. For example, each identity may be associated with a profile, or, for simplification or to alleviate privacy concerns, each identity may link only to generalized information, such as a type of automobile. Based on audience information **34** for some or all of targets **14** in range of output device **24**, server **16** selects one or more of advertisements **30** to present. As previously discussed, output device **24** represents any suitable visual, audio, or other transmission device for delivering information to targets **14**. Moreover, while this example illustrates specific components for displaying advertisements **30** based on audience information **34**, some or all of the functionalities described for output device **24**, server **16**, and base station **18** may be implemented within a mobile apparatus, such as apparatus **12**. For example, apparatus **12** may use communications interface **26** to identify targets **14** and obtain associated audience information **34**. Thus, apparatus **12** may present advertisements based solely on audience information **34** for targets **14** within an effective range.

In both system **10** and system **50**, advertisements presented using output device **24** may offer additional services or direct targets **14** to additional sources of information. For example, a selected advertisement may direct targets **14** to a website offering additional information or coupons associated with the original advertisement. Moreover, apparatus **12** may enable targets **14** to access additional information using techniques such as low-power radio transmissions or wireless local area network (LAN) services. For example, a song advertised using output device **24** may be instantly downloadable as an MP3 file using a wireless LAN or may be broadcast using a low-power radio transmission. In some cases, apparatus **12** may be well suited for installation on large vehicles, such as long-haul trucks. These large vehicles typically have excess hauling capacity that may be used to install equipment, such as communications equipment for establishing high-bandwidth, wireless links with remote servers or for enabling wireless LANs for targets **14** in close proximity.

FIG. **3** illustrates the functional components of an exemplary mobile advertising apparatus **12**, including an output controller **60** coupled to location device **22**, output device **24**, communications interface **26**, a timing device **62**, and a local memory **64**. In a particular embodiment, apparatus **12** determines a physical location using location device **22** and presents a selected advertisement based on this physical location. In an alternate embodiment, apparatus **12** presents a selected advertisement based on audience information **34** associated with targets **14**. However, apparatus **12** may present an advertisement selected using any suitable combination of criteria.

Location device **22** provides physical location information using any suitable technique. For example, location device **22** may access global positioning system (GPS) signals, cellular system signals, or other signals to determine a physical location. Moreover, location device **22** may use timing device **62** in combination with a route table **66** maintained in memory **64** to determine a current physical position along a predetermined route. For example, apparatus **12** may be installed on a bus, train or other vehicle that travels along a predetermined route, with location device **22** determining location information by accessing route table **66**. System **10** contemplates location device **22** accessing any information or signals and using any suitable techniques for determining an approximate or precise physical location.

Timing device **62** provides timing capabilities and may also determine a current time or date. Communications interface **26** provides one or more forms of wireless communications with other devices in system **10**. For example, communications interface **26** may support wireless links with digital or analog cellular networks, satellite links, or with other wireless systems. In addition, communications interface **26** may support wireless LANs between apparatus **12** and other equipment in system **10**, such as targets **14** with networking capabilities. Moreover, communications interface **26** may access identifying equipment on targets **14**, such as target interfaces **32**, to enable an association of targets **14** to audience information **34**.

Memory **64** represents any one or a combination of volatile or non-volatile, local or remote devices suitable for storing data, for example, random access memory (RAM) devices, read only memory (ROM) devices, magnetic storage devices, optical storage devices, or any other suitable data storage devices. Memory **64** may maintain information such as route table **66**, advertisements **30**, an output table **68**, or other suitable information. As discussed above, location device **22** may use route table **66** to determine location information. Output table **68** represents any information used by apparatus **12** or server **16** in determining an advertisement to present based on location information. For example, output table **68** may have advertisements indexed by geographic region, time of day, audience information **34**, or other suitable selection criteria. While this example illustrates memory **64** within apparatus **12**, system **10** contemplates memory **64** residing wholly or partially within other devices in system **10**. For example, memory **64** may be all or a portion of server memory **28**. Thus, system **10** contemplates distributed and/or centralized management, storage, and control of advertisements presented using output device **24**.

In operation, output controller **60** determines location information using location device **22**, determines an appropriate advertisement **30** based on the location information, and directs output device **24** to present the selected advertisement **30**. Output controller **60** may access timing device **62**, route table **66**, output table **68**, or other suitable information or components to determine the appropriate advertisement **30**. Moreover, output controller **60** may communicate information with remote equipment via communications interface **26** to determine the appropriate advertisement **30**. For example, output controller **60** may determine location information using location device **22**, communicate this location information to server **16**, and receive a selected advertisement **30** from server **16**. Output device **24** then presents one or more advertisements **30** to targets **14**.

While this example illustrates specific functional modules for apparatus **12**, system **10** contemplates implementing the functionalities described using any suitable combination and arrangement of hardware and/or software. In addition, functionalities from each of these modules and those from server **16** may be combined or separated into smaller or larger functional units when appropriate, and any of the methods or functionalities described may be implemented by a computer program stored on a computer readable medium.

FIG. **4** illustrates the functional components of an exemplary server **16**, including a server controller **80** coupled to a server communications interface **82** and server memory **28**. In general, server **16** controls the operation, administration, and management of components within system **10**, including apparatus **12**. Moreover, server **16** may select advertisements **30** for presentation using output device **24** based on any suitable criteria, such as audience, location, timing, or other suitable information.

Similar to memory **64**, memory **28** may be any suitable combination of local or remote memory storage devices. Memory **28** may store advertisements **30** in addition to other information, such as route tables **66**, output tables **68**, or additional information. Server communications interface **82** provides wireless or wireline connectivity to other devices in system **10** using any suitable communication protocol. In a particular embodiment, interface **82** couples to base station **18**, which provides a wireless link with apparatus **12**.

In operation, server **16** may directly control output device **24**, as in system **50**, or may provide support for apparatus **12**, as in system **10**. For example, server **16** may receive location information, timing information, audience information **34**, and/or other suitable information from apparatus **12** and use this information to select from advertisements **30**. Server **16** then communicates the selected advertisement **30** to apparatus **12** using server communications interface **82**.

In a particular embodiment, server **16** operates as a centralized storehouse of advertisements **30**. For example, server **16** may store a list of available advertisements **30** in server memory **28**. Server **16** then downloads some or all of these advertisements **30** to apparatuses **12** at remote locations. Alternatively, some or all of advertisements **30** stored in server memory **28** may be downloaded at the request of apparatuses **12**. A centralized database allows single point management of advertisements **30**, and, for example, allows server **16** to download a portion of advertisements **30** appropriate for a current or anticipated geographic location of a particular apparatus **12**. However, system **10** contemplates storage and distribution of advertisements **30** among any suitable components.

While this example illustrates specific functional modules for server **16**, system **10** contemplates implementing the methods and functionalities described using any suitable combination and arrangement of hardware and/or software. Moreover, as previously discussed, functionalities from the modules in server **16** and those from apparatus **12** may be combined or separated into smaller or larger functional units of a centralized or distributed system, and any of the methods or functionalities described may be implemented by a computer program stored on a computer readable medium.

FIG. **5** illustrates an exemplary output table **68** maintaining information for selecting one or more of advertisements **30** to present using output device **24**. In this example, advertisements are selected based on location information, time information, audience information **34**, and a priority for the advertisement. Thus, apparatus **12** in location X displays one of four advertisements based on the time of day and the audience. For example, during morning rush-hour, apparatus **12** at location X will display advertisement **#1** regardless of the audience. During the lunch hours, apparatus **12** selects between advertisement **#2** and **#3** based upon audience information **34**. For example, apparatus **12** at location X during lunchtime and detecting audience characteristics A, B, or C presents advertisement **#2**, but will default to presenting advertisement **#3** if those audience characteristics are not detected. At all other times, apparatus **12** at location X presents advertisement **#4** as a default. However, these advertising selections and the criteria used are meant only to illustrate a specific example of the operation of apparatus **12**. System **10** contemplates selecting from advertisements **30** using any appropriate criteria. Furthermore, while this example illustrates selection criteria associated with advertisement **30** in table form, system **10** may store this information using other suitable arrangements and storage techniques.

Although the present invention has been described in several embodiments, a myriad of changes and modifications may be suggested to one skilled in the art, and it is intended that the present invention encompass such changes and modifications as fall within the scope of the present appended claims.

What is claimed is:

1. A mobile advertising apparatus comprising:

a location device operable to determine a first physical location of the apparatus and to determine a second physical location of the apparatus, the second physical location remote from the first physical location;

a controller operable to determine a first advertisement based on the first physical location and to determine a second advertisement based on the second physical location; and

an output device operable to present the first advertisement to a first group of mobile advertising targets within an effective range of the output device at the first physical location and to present the second advertisement to a second group of mobile advertising targets within an effective range of the output device at the second physical location.

2. The mobile advertising apparatus of claim **1**, wherein the location device comprises a global positioning system (GPS) unit.

3. The mobile advertising apparatus of claim **1**, further comprising a communications link, and wherein, to determine the first advertisement, the controller is further operable to:

communicate the first location to a remote server using the communications link; and

receive the first advertisement from the server using the communications link.

4. The mobile advertising apparatus of claim **1**, further comprising a memory storing a plurality advertisements associated with corresponding geographic regions, and wherein, to determine the first advertisement, the controller is further operable to select one of the advertisements stored in the memory based on the first location.

5. The mobile advertising apparatus of claim **1**, further comprising a communications link and a memory, and wherein the controller is further operable to:

receive a plurality of advertisements from a remote server using the communications link;

store the advertisements received from the server using the memory; and

determine the first advertisement to present by selecting one of the advertisements stored in the memory based on the first location.

6. The mobile advertising apparatus of claim **1**, wherein the output device comprises a selected one of a visual display device, an audio output device, and a radio transmitter.

7. The mobile advertising apparatus of claim **1**, wherein the controller is further operable to:

determine a current time; and

determine the first advertisement based on the first location and the current time.

8. The mobile advertising apparatus of claim **1**, wherein the controller is further operable to:

identify a plurality of mobile advertising targets, wherein the identified mobile advertising targets are within an effective range of the output device;

determine audience information associated with the identified mobile advertising targets; and

determine the first advertisement based on the first location and the audience information.

9. An advertising system for presenting advertisements to a plurality of mobile advertising targets within an effective range of a billboard comprising:

a memory storing a plurality of advertisements;

a controller operable to identify the mobile advertising targets, determine audience information associated with the mobile advertising targets, and determine a selected one of the advertisements based on the audience information; and

the billboard operable to visually present the selected advertisement for viewing by the mobile advertising targets.

10. The system of claim **9**, wherein the mobile advertising targets comprise vehicles.

11. The system of claim **9**, wherein:

the mobile advertising targets comprise transponders; and

the controller is further operable to communicate with the transponders to identify the mobile advertising targets.

12. The system of claim **9**, wherein the controller is further operable to:

determine a current time; and

determine the advertisement based on the audience information and the current time.

13. A method for presenting advertisements comprising:

determining a first physical location of a mobile output device;

determining a first advertisement based on the first physical location;

presenting the first advertisement using the output device to a first group of mobile advertising targets within an effective range of the output device at the first physical location;

determining a second physical location of a mobile output device, the second physical location remote from the first physical location;

determining a second advertisement based on the second physical location; and

presenting the second advertisement using the output device to a second group of mobile advertising targets within an effective range of the output device at the second physical location.

14. The method of claim **13**, wherein determining the first physical location comprises accessing a global positioning system (GPS) unit to determine the first physical location of the mobile output device.

15. The method of claim **13**, wherein determining the first advertisement comprises:

communicating the first location to a remote server; and

receiving the first advertisement from the remote server.

16. The method of claim **13**, wherein determining the first advertisement comprises selecting one of a plurality of advertisements stored in a local memory based on the first location.

17. The method of claim **13**, wherein the output device comprises a selected one of a visual display device, an audio output device, and a radio transmitter.

18. The method of claim **13**, further comprising:

determining a current time; and

determining the first advertisement based on the first location and the current time.

19. The method of claim **13** further comprising:

identifying a plurality of mobile advertising targets within an effective range of the output device;

determining audience information associated with the identified mobile advertising targets; and

determining the first advertisement based on the first location and the audience information.

20. Software for presenting advertisements operable to:

determine a first physical location of a mobile output device;

determine a first advertisement based on the first location of the output device;

present the first advertisement using the output device to a first group of mobile advertising targets within an effective range of the output device at the first physical location;

determine a second physical location of a mobile output device, the second physical location remote from the first physical location;

determine a second advertisement based on the second physical location; and

present the second advertisement using the output device to a second group of mobile advertising targets within an effective range of the output device at the second physical location.

21. The software of claim **20**, further operable to determine the first physical location of the mobile output device by accessing a global positioning system (GPS) unit.

22. The software of claim **20**, further operable to:

communicate the first location to a remote server; and

receive the first advertisement from the remote server.

23. The software of claim **20**, further operable to determine the first advertisement by selecting one of a plurality of advertisements stored in a local memory based on the first location.

24. The software of claim 20, wherein the output device comprises a selected one of a visual display device, an audio output device, and a radio transmitter.

25. The software of claim 20, further operable to:

determine a current time; and

determine the first advertisement based on the first location and the current time.

26. The software of claim 20, further operable to:

identify a plurality of mobile advertising targets within an effective range of the output device;

determine audience information associated with the identified mobile advertising targets; and

determine the first advertisement based on the first location and the audience information.

27. A mobile advertising apparatus comprising:

means for determining a first physical location of a mobile output device;

means for determining a first advertisement based on the first physical location;

means for presenting the first advertisement to a first group of mobile advertising targets within an effective range of the output device at the first physical location;

means for determining a second physical location of a mobile output device, the second physical location remote from the first physical location;

means for determining a second advertisement based on the second physical location; and

means for presenting the second advertisement using the output device to a second group of mobile advertising targets within an effective range of the output device at the second physical location.

28. The apparatus of claim 27, wherein the means for determining the first physical location comprises means for accessing a global positioning system (GPS) unit to determine the first physical location of the mobile output device.

29. The apparatus of claim 27, wherein the means for determining the first advertisement comprises:

means for communicating the first location to a remote server; and

means for receiving the first advertisement from the remote server.

30. The apparatus of claim 27, wherein the means for determining the first advertisement comprises means for selecting one of a plurality of advertisements stored in a local memory based on the first location.

31. The apparatus of claim 27, further comprising:

means for determining a current time; and

means for determining the first advertisement based on the first location and the current time.

32. The apparatus of claim 27, further comprising:

means for identifying a plurality of mobile advertising targets within an effective range of the output device;

means for determining audience information associated with the identified mobile advertising targets; and

means for determining the first advertisement based on the first location and the audience information.

33. A vehicle comprising:

a wheeled motive mechanism for moving the vehicle from a first physical location to a second physical location;

a global positioning system (GPS) unit operable to determine a current physical location of the vehicle;

a controller operable to determine a first advertisement based on the first physical location and to determine a second advertisement based on the second physical location; and

a billboard operable to visually present the first advertisement to a first group of mobile advertising targets when the GPS unit determines that the vehicle is near to the first physical location, the output device further operable to present the second advertisement to a second group of mobile advertising targets when the GPS unit determines that the vehicle is near to the second physical location.

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