(when user location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit, see fig. 3, [0022]-[0025], [0033], [0034]).

Regarding **claim 30**, Yoon discloses a non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor (advertiser terminal providing server, connecting to advertiser terminal 4, and transmitting to navigation terminal (~memory storing code/software for enabling a processor to execute), see [0019]-[0020], [0029]) to perform the steps of:

receiving, via content delivery platform software (advertisement providing server 2 (~memory storing code/software for enabling a processor to execute), see fig. 3, [0029]):

a request to have an alphanumeric identifier (advertisement such as the advertisement displayed as a pop-up window, information of the advertisement, see figs. 2-3, [0019]-[0020], [0035]), being associated with a selected geographic area of interest, delivered to a computer program on a mobile device (see fig. 3, 31 310, 32, 33, [0021]-[0022]. The means are operated using software/computer program in the navigation terminal) after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the

advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0029], [0035]); and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the alphanumeric identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0019]-[0020], [0023], [0029], [0035]);

reserving, in at least one memory, the selected geographic area of interest for delivery of the alphanumeric identifier to the computer program (storing the advertisement area for later comparison with the user's location, see fig. 3, [0020], [0023], [0029], [0033], [0035]);

obtaining location information representing at least one physical geographic location of the mobile device (user's location, see [0032], [0032]); and

delivering the alphanumeric identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest (when user location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit, see figs. 3-4, [0020], [0022]-[0025], [0033], [0034]-[0035]).

Regarding **claim 31** as applied to claim 1, Yoon further discloses wherein the content delivery platform resides in the mobile device (this limitation is being treated as having software on the mobile device because as stated in the 112(a) rejection, the specification does not disclose or suggest "content delivery platform software" on the mobile device receiving advertisement/identifier. See fig. 3, 31 310, 32, 33, [0021]-[0022]. The means are operated using software/computer program in the navigation terminal).

Regarding **claim 32** as applied to claim 29, Yoon further discloses wherein the identifier is an alphanumeric identifier (advertisement such as the advertisement displayed as a pop-up window, information of the advertisement, see figs. 2-3, [0019]-[0020], [0035]).

Claim Rejections - 35 USC § 103

11. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries for establishing a background for determining obviousness under pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

12. Claims 7 and 8 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Lempio et al US 20030207683** (**hereinafter Lempio**).

Regarding **claim 7** as applied to claim 1, Yoon discloses the claimed invention except wherein: receiving, via the computer program, the boundary identifier delivered by the content delivery platform software comprises receiving the boundary identifier after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at

least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time. In the same field of endeavor, Lempio discloses receiving, via a computer program (mobile station 300, with application software, see figs. 3 and 8, [0032]), a boundary identifier (~advertisement, see [0061]) delivered by a content delivery platform software (AP 400, see fig. 8, [0064]-[0065]), wherein said receiving comprises receiving the boundary identifier after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time (see fig. 8, [0040], [0054], [0056]-[0058], [0060]-[0061]).

It would therefore have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to combine the teaching of Lempio with Yoon by sending the advertisement to the mobile communication terminal when the mobile communication terminal is determined to be in an area covered by the ad server for a length of time, for the benefit of conserving bandwidth usage by transmitting the advertisements only when a mobile communication stays in the area of the ad server, as opposed to mobile communication terminals that may just be passing through the coverage area of the ad server.

Regarding **claim 8** as applied to claim 7, the combination of Yoon and Lempio disclose the claimed invention. Lempio further discloses wherein the predetermined length of time is not a predetermined length of time provided to the content delivery platform software in connection with a particular request to have a boundary identifier delivered to a computer program on the mobile device after it has been determined that

the mobile device has at least entered a selected geographic area of interest and has remained therein for at least the predetermined length of time but is a predetermined length of time set by the content delivery platform software (see figs. 5B and 8, [0039]-[0040], [0060]-[0061]).

13. Claims 13, 14, 17, and 18 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Zellner et al US 20020077084** (**hereinafter Zellner**).

Regarding **claim 13** as applied to claim 10, Yoon discloses the claimed invention except wherein delivering the identifier to the computer program comprises delivering the identifier after it has been determined that the mobile device has at least remained within the selected geographic area of interest for at least a predetermined length of time.

In the same field of endeavor, Zellner discloses a system for creating and offloading location awareness (see fig. 1), the system including a mobile device (cell phone 10, see fig. 1) and comprising:

at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]), see abstract);

at least one processor operably coupled to the at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]); and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for: delivering the identifier after it has been

determined that the mobile device has at least remained within the selected geographic area of interest for at least a predetermined length of time (transmit user-specific or location specific voice or data advertisements to cell phone 10, when cell phone 10 is determined to be visiting a location 14 after a periodic location determinations indicates a stable location, see [0031]-[0035]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Zellner with Yoon by providing location based advertisement to a navigation terminal only when it has been determined, based on predefined location measurements for a specific period of time, that the navigation terminal is still at or within the same location, for the benefit providing the location-specific advertisements only to mobile devices that are staying in or visiting the area of the determined location and not just passing by/moving through the location.

Regarding **claim 14** as applied to claim 12, Yoon discloses the claimed invention except wherein the code further comprises at least one instruction for: preserving delivery of the identifier from the at least one memory to the computer program until after it has been determined that the mobile device has remained within the selected geographic area of interest for at least a predetermined length of time.

In the same field of endeavor, Zellner discloses a system for creating and offloading location awareness (see fig. 1), the system including a mobile device (cell phone 10, see fig. 1) and comprising:

at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]), see abstract);

at least one processor operably coupled to the at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]); and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for: preserving delivery of the identifier from the at least one memory to the computer program until after it has been determined that the mobile device has remained within the selected geographic area of interest for at least a predetermined length of time (transmit user-specific or location specific voice or data advertisements to cell phone 10, when cell phone 10 is determined to be visiting a location 14 after a periodic location determinations indicates a stable location, see [0031]-[0035]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Zellner with Yoon by providing location based advertisement to a navigation terminal only when it has been determined, based on predefined location measurements for a specific period of time, that the navigation terminal is still at or within the same location, for the benefit providing the location-specific advertisements only to mobile devices that are staying in or visiting the area of the determined location and not just passing by/moving through the location.

Regarding **claim 17** as applied to claim 10, Yoon discloses the claimed invention except wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time.

In the same field of endeavor, Zellner discloses a system for creating and offloading location awareness (see fig. 1), the system including a mobile device (cell phone 10, see fig. 1) and comprising:

at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]), see abstract, ;

at least one processor operably coupled to the at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]); and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time (transmit user-specific or location specific voice or data advertisements to cell phone 10, when cell phone 10 is determined to be visiting a location 14 after a periodic location determinations indicates a stable location, see [0031]-[0035]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Zellner with Yoon by providing location based advertisement to a navigation terminal only when it has been determined, based on predefined location measurements for a specific period of time, that the navigation terminal is still at or within the same location, for the benefit providing

the location-specific advertisements only to mobile devices that are staying in or visiting the area of the determined location and not just passing by/moving through the location.

Regarding **claim 18** as applied to claim 10, Yoon discloses the claimed invention except wherein the code further comprises at least one instruction for creating a notification that the mobile device has at least entered the selected geographic area of interest.

In the same field of endeavor, Yoon discloses a method comprising creating a notification that the mobile device has at least entered the selected geographic area of interest (see [0033]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Zellner with Yoon by creating a registration for registering with a network after a mobile device enters an area covered by the network, for the benefit providing the location-specific advertisements to mobile devices that are located the area of the network.

14. Claim 26 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Barnes et al US 8,010,134** (**hereinafter Barnes**).

Regarding **claim 26** as applied to claim 10, Yoon discloses the claimed invention except wherein the obtained location information is determined at least in part by using cellular tower information received via a cellular antenna of the mobile device and not by using information received via a GPS antenna of the mobile device. In the same field of endeavor, Barnes discloses wherein the obtained location information is determined

at least in part by using cellular tower information received via a cellular antenna of the mobile device (410, 412, see fig. 4B, col. 6, lines 15-56).

It would therefore have been obvious to one of ordinary skill in the art at the time the time the invention was made to combine the teaching of Barnes with Yoon by using cell tower location technology to determine the location of the mobile device/navigation terminal, for the benefit of quickly determining the location of device for mobile device advertising.

15. Claim 19 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Unold et al US 20020055880** (**hereinafter Unold**).

Regarding **claim 19** as applied to claim 10, Yoon discloses the claimed invention except wherein: reserving the selected geographic area of interest for delivery of the identifier to the computer program comprises reserving the selected geographic area of interest only after it has been determined that the selected geographic area of interest is available to be reserved; and the code further comprises at least one instruction for sending a notification indicating that the selected geographic area of interest has been reserved.

In the same field of endeavor, Unold discloses a method for reserving ads comprising reserving the selected geographic area of interest for delivery of the identifier to the computer program comprises reserving the selected geographic area of interest only after it has been determined that the selected geographic area of interest is available to be reserved and sending a notification indicating that the selected geographic area of interest has been reserved (reserving schedule report with location

for which reservation of advertisement is being made and advertisement spots selected for reservation by the advertiser see [0141]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Unold with Yoon by making notifying the advertiser terminal of name and location, and time of advertisements reserved by the advertiser, for the benefit of enabling the advertiser to schedule specific location and times for purchasing advertisements.

16. Claims 24 and 25 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Mikkelsen et al US 20100077022** (**hereinafter Mikkelsen**).

Regarding **claim 24** as applied to claim 10, Yoon discloses the claimed invention except wherein the code further comprises at least one instruction for performing a verification whether the computer program has authorization to initiate a location session with the content delivery platform software, wherein:

if the verification passes, the computer program is allowed to initiate a location session with the content delivery platform software; and

if the verification fails, the computer program is not allowed to initiate a location session with the content delivery platform software.

Mikkelsen discloses a method for media delivery to a device comprising performing a verification whether the computer program in the device has authorization (see fig. 21, [0271]) to initiate a session with a content delivery platform software (content server, see fig. 20, [0280]), wherein;

if the verification passes, the computer program is allowed to initiate a location session with the content delivery platform software (using an authorization key to authenticate a user at a content server before providing a music clip file and advertisements to the user, [0063], [0260]-[0261], [0265]-[0266], [0279]-[0280], [0282], [0284]); and

if the verification fails, the computer program is not allowed to initiate a location session with the content delivery platform software.

It would therefore have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to combine the teaching of Mikkelsen with Yoon by authenticating a mobile device at the content server before providing the mobile device with any content, as taught by Mikkelsen, for the benefit of delivering advertising messages along with a user selected video clip.

Regarding **claim 25** as applied to claim 24, the combination of Yoon and Mikkelsen disclose the claimed invention. Yoon does not teach wherein performing the verification comprises performing, for the computer program, a check on a key being previously stored in a data store that the content delivery platform software service uses for validating location sessions initiated by one or more computer programs installed on the mobile device. However, Mikkelsen further discloses wherein performing the verification comprises performing, for the computer program, a check on a key being previously stored in a data store that the content delivery platform software service uses for validating location sessions initiated by one or more computer programs installed on the mobile device (using an authorization key to authenticate a user at a content server before providing a music clip file and advertisements to the user, [0063], [0260]-[0261], [0265]-[0266], [0279]-[0280], [0282], [0284]).

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached Monday-Friday 8AM-4PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VLADIMIR MAGLOIRE can be reached on 571-270-5144. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and https://www.uspto.gov/patents/docx for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/OLUMIDE AJIBADE AKONAI/
Primary Examiner, Art Unit 3648

Notice of References Cited	Application/Control No. 17/863,208	Applicant(s)/Patent Under Reexamination Hardin et al.	
	Examiner OLUMIDE T AJIBADE AKONAI	Art Unit 3648	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20030207683-A1	11-2003	Lempio, Jarkko	H04W4/029	455/456.1
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/863,208	Hardin et al.
	Examiner	Art Unit
	OLUMIDE T AJIBADE AKONAI	3648

CPC - Searched*		
Symbol	**Date**	**Examiner**
G06Q30/02 30/0261 50/01 30/0241 30/0267 30/0269 30/0251 30/0255 20/3224 30/0205 30/0207 20/322 30/0259	10/31/2022	OA
H04W4/029 4/02 4/021 4/21 4/023 4/025 4/18	10/31/2022	OA

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

/OLUMIDE AJIBADE AKONAI/ Primary Examiner, Art Unit 3648	

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/863,208	Hardin et al.
	Examiner	Art Unit
	OLUMIDE T AJIBADE AKONAI	3648

Search Notes		
Search Notes	**Date**	**Examiner**
PE2E search	10/31/2022	OA
Inventor search	10/31/2022	OA
IP.com search	10/31/2022	OA
IPR2022-01332 Reviewed Petition for Post Grant Review of U.S. No. 9,779,418 on 10/07/2022	10/31/2022	OA
IPR2022-01331 Reviewed Petition for Post Grant Review of U.S. No. 9,779,418 on 10/07/2022	10/31/2022	OA
IPR2022-01330 Reviewed Petition for Post Grant Review of U.S. No. 9,779,418 on 10/07/2022	10/31/2022	OA
IPR2022-01335 Reviewed Petition for Post Grant Review of U.S. No. 10,984,447 on 10/20/2022	10/31/2022	OA
IPR2022-01334 Reviewed Petition for Post Grant Review of U.S. No. 10,984,447 on 10/20/2022	10/31/2022	OA
IPR2022-01334 Reviewed Petition for Post Grant Review of U.S. No. 10,984,447 on 10/20/2022	10/31/2022	OA
PE2E search	03/06/2023	OA

Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
G06Q	30/02 30/0261 50/01 30/0241 30/0267 30/0269 30/0251 30/0255 20/3224 30/0205 30/0207 20/322 30/0259	10/31/2022	OA
H04W	4/029 4/02 4/021 4/21 4/023 4/025 4/18	10/31/2022	OA

/OLUMIDE AJIBADE AKONAI/ Primary Examiner, Art Unit 3648	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/863,208	Hardin et al.
	Examiner	Art Unit
	OLUMIDE T AJIBADE AKONAI	3648

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	10/31/2022	03/06/2023							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	-							
	7	✓	✓							
	8	✓	✓							
	9	✓	✓							
	10	✓	✓							
	11	✓	✓							
	12	✓	✓							
	13	✓	✓							
	14	✓	✓							
	15	✓	-							
	16	✓	✓							
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	25	✓	✓							
	26	✓	✓							
	27	✓	✓							
	28	✓	✓							
	29	✓	✓							
	30	✓	✓							
	31		✓							
	32		✓							

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L84	20	(((mobile wireless cellular portable android) near2 (device phone terminal station)) "user equipment" WCD MCD WTRU) WITH (remain$3 stay$3) near5 (area location region zone) WITH (period time) SAME (sent send$3 transmit$$) near5 (advert ad advertisement$1)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/28 01:50 PM
L85	372	(((mobile wireless cellular portable android) near2 (device phone terminal station)) "user equipment" WCD MCD WTRU) SAME (remain$3 stay$3 within) near5 (area location region zone) WITH (period time) SAME (sent send$3 transmit$4) near5 (advert ad advertisement$1)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/28 01:52 PM
L86	142	(((mobile wireless cellular portable android) near2 (device phone terminal station)) "user equipment" WCD MCD WTRU) SAME (remain$3 stay$3 within) near5 (area location region zone) WITH (period time) SAME (sent send$3 transmit$4) near5 (advert ad advertisement$1)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/28 02:05 PM
L87	34	("20040220906"|"20080098420"|"20080262897"|"20090063424"|"6810323"|"7103368"|"20030101454"|"7200673"|"7219303"|"20030198346"|	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/28 06:20 PM

		"20040214550"|"20080163073"|"6847888"|"7089264"|"20030064705"|"20030198346"|"20040214550"|"20080162032"|"20100312646"|"6867733"|"7096117"|"7814106"|"20080307498"|"20090024476"|"20080004952"|"20040220906"|"20060064346"|"7009556"|"7207802"|"7219303"|"7814106"|"20030064705"|"20080154728"|"7124370"|"7207802"|"20070185768"|"7080402"|"20100312646"|"7124370"|"20040253965"|"20080004952"|"20080215524"|"20080313039"|"7200673"|"9251520").PN.					
L88	1	"8433296".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/28 06:24 PM
L89	1	"10984447".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/28 06:24 PM
L90	30	"8433296" "10984447" "1049387" "9779418" "9286625" "8977247"	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/28 06:25 PM
L91	22	"8433296" "10984447" "1049387" "9779418" "9286625" "8977247"	(USPAT)	OR	ON	ON	2023/02/28 06:25 PM
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L95	1	"9779418".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/28 06:27 PM
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L97	1	"10984447".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/03/01 11:18 AM
L98	1	"10049387".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/03/01 11:20 AM
L99	1	"9779418".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/03/01 11:21 AM
L100	1	"9286625".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/03/01 11:23 AM
L101	1	"8977247".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/03/01 11:25 AM
L102	1	"8433296".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/03/01 11:27 AM

PE2E SEARCH - Search History (Interference)

There are no Interference searches to show.

PE2E SEARCH - Search History (Similarity Search)

No Similarity Results available

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-22)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	17863208
Filing Date	2022-07-12
First Named Inventor	Ryan Hardin
Art Unit	3648
Examiner Name	Olumide Ajibade Akonai
Attorney Docket Number	971600.1001

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Attorney Docket Number	971600.1001

/O.A/	1	IPR2022-01327, DECISION Granting Institution of Inter Partes Review of US Patent 10,049,387 B2, February 7, 2023.
/O.A/	2	IPR2022-01328, DECISION Granting Institution of Inter Partes Review of US Patent 10,049,387 B2, February 8, 2023.
/O.A/	3	IPR2022-01329, DECISION Granting Institution of Inter Partes Review of US Patent 10,049,387 B2, February 8, 2023.
/O.A/	4	IPR2022-01330, DECISION Granting Institution of Inter Partes Review of US Patent 9,779,418 B2, February 8, 2023.
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/O.A/	7	IPR2022-01333, DECISION Granting Institution of Inter Partes Review of US Patent 10,984,447 B2, February 7, 2023.
/O.A/	8	IPR2022-01334, DECISION Granting Institution of Inter Partes Review of US Patent 10,984,447 B2, February 8, 2023.
/O.A/	9	IPR2022-01335, DECISION Granting Institution of Inter Partes Review of US Patent 10,984,447 B2, February 8, 2023.

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EXAMINER SIGNATURE

Examiner Signature	/OLUMIDE AJIBADE AKONAI/	Date Considered	02/28/2023

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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Attorney Docket Number	971600.1001

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Clint R. Mehall/	Date (YYYY-MM-DD)	2023-02-15
Name/Print	Clint R. Mehall	Registration Number	62,380

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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Application Number	17863208
Filing Date	2022-07-12
First Named Inventor	Hardin, Ryan
Art Unit	
Examiner Name	
Attorney Docket Number	0075652.00009

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7089264	B1	2006-08-08	Guido et al.	
	2	7536695	B2	2009-05-19	Alam et al.	
	3	7457628	B2	2008-11-25	Blumberg et al.	
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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /O.A/

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Application Number	17863208
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First Named Inventor	Hardin, Ryan
Art Unit	
Examiner Name	
Attorney Docket Number	0075652.00009

	9	9286652	B2	2016-03-15	Takishima	
	10	10002242	B2	2018-06-19	Jakobsson et al.	
	11	9654978	B2	2017-05-16	Lundblade et al.	
	12	9836591	B2	2017-12-05	Archibald et al.	
	13	10248775	B2	2019-04-02	Archibald et al.	
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	16	9621549	B2	2017-04-11	Benoit et al.	
	17	9781096	B2	2017-10-03	Sade et al.	
	18	10135613	B2	2018-11-20	McLean et al.	
	19	8505078	B2	2013-08-06	Hohlfeld et al.	

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	20	9400403	B2	2015-08-04	Hohlfeld et al.	
	21	8943164	B2	2015-01-27	Kies et al.	
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	32	10043170	B2	2018-08-07	Minear et al.	
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	42	9503834	B2	2016-11-22	Ross et al.	
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Examiner Initial*	Cite No	Publication Number	Kind Code1	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear

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	12	20060116817	A1	2006-06-01	Salmre et al.	
	13	20170289197	A1	2017-10-05	Mandyam et al.	
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	24	20130182838	A1	2013-07-18	Kelley et al.	
	25	20110010383	A1	2011-01-13	Thompson et al.	
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	35	20080125099	A1	2008-05-29	Brown et al.	
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	First Named Inventor	Hardin, Ryan
	Art Unit	
	Examiner Name	
	Attorney Docket Number	0075652.00009

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	40	Exhibit A-2 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by U.S. Patent No. 7,089,264 ("Guido")	☐
	41	Exhibit A-3 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by U.S. Patent App. Pub. No. 2008/0032666 A1 ("Hughes")	☐
	42	Exhibit A-4 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by U.S. Patent No. 8,219,115 ("Nelissen")	☐
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	44	Exhibit A-6 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by U.S. Patent App. Pub. No. 2006/0270421A1 ("Phillips")	☐
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	47	Exhibit A-9 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by U.S. Patent Application Pub. No. 2006/0116817 A1 ("Salmre")	☐
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EXAMINER SIGNATURE

Examiner Signature	/OLUMIDE AJIBADE AKONAI/	Date Considered	02/28/2023

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Signature	/Ryan J. Hardin/	Date (YYYY-MM-DD)	2022-07-21
Name/Print	Ryan J. Hardin	Registration Number	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	17863208
Filing Date	2022-07-12
First Named Inventor	Hardin, Ryan
Art Unit	
Examiner Name	
Attorney Docket Number	0075652.00009

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Ryan J. Hardin/	Date (YYYY-MM-DD)	2022-07-21
Name/Print	Ryan J. Hardin	Registration Number	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

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Examiner Name	
Attorney Docket Number	0075652.00009

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7610048	B2	2009-10-27	Ross et al.	
	2	6721578	B2	2004-04-13	Minear et al.	
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	7	6542729	B1	2003-04-01	Chmaytelli et al.	
	8	7921287	B2	2011-04-05	Sprigg et al.	

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	9	7096004	B2	2006-08-22	Minear et al.	
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	20	6449498	B1	2002-09-10	Kirbas et al.	
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Examiner Initial*	Cite No	Publication Number	Kind Code1	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear

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	1	20120030742	A1	2012-02-02	Lundblade	
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	3	20050058067	A1	2005-03-17	Chmaytelli et al.	
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	12	20060141993	A1	2006-06-29	Minear et al.	
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	34	20100173608	A1	2010-07-08	Lundblade et al.	
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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

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	Attorney Docket Number	0075652.00009

	1	Exhibit A-13 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by Anand Ranganathan et al., MiddleWhere: A Middleware for Location Awareness in Ubiquitous Computing Applications, 3231 Lecture Notes in Comp. Sci. 397 (2004) ("Ranganathan")	☐
	2	Exhibit A-14 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by Timothy Sohn et al., Place-Its: A Study of Location-Based Reminders on Mobile Phones, UbiComp '05: Proceedings of the 7th International Conference on Ubiquitous Computing 232 (Sept. 2005) ("Sohn")	☐
	3	Exhibit A-15 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by Version 1.0 of the Android Operating System, Beta Versions of Android, and Android Software Development Kits ("Android 2007-2008")	☐
	4	Exhibit A-16 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by Location API for Java™ 2 Micro Edition, Version 1.0.1 ("JSR 179")	☐
	5	Exhibit A-17 - Invalidity of U.S. Patent No. 9,779,418 ("'418 Patent") by U.S. Patent No. 9,286,625 ("'625 Patent")	☐
	6	Exhibit A-18 - Subject Matter Eligibility Contentions for U.S. Patent No. 9,779,418 ("'418 Patent")	☐
	7	Exhibit B-1 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent Application Publication No. 2006/0223494 A1 ("Chmaytelli")	☐
	8	Exhibit B-2 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent No. 7,089,264 ("Guido")	☐
	9	Exhibit B-3 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent App. Pub. No. 2008/0032666 A1 ("Hughes")	☐
	10	Exhibit B-4 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent No. 8,219,115 ("Nelissen")	☐
	11	Exhibit B-5 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. App. Pub. No. 2009/0089288 A1 ("Petersen")	☐

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	12	Exhibit B-6 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent App. Pub. No. 2006/0270421A1 ("Phillips")	☐
	13	Exhibit B-7 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent Application Pub. No. 2007/0129888A1 ("Rosenberg")	☐
	14	Exhibit B-8 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent Application Publication No. US 2009/0157632 A1 ("Ryu")	☐
	15	Exhibit B-9 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent Application Pub. No. 2006/0116817A1 ("Salmre")	☐
	16	Exhibit B-10 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent No. 7,054,649 ("Yamazaki")	☐
	17	Exhibit B-11 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by Natalia Marmasse & Chris Schmandt, Location-Aware Information Delivery with ComMotion, in Lecture Notes in Computer Science 1927: Handheld and Ubiquitous Computing, Second International Symposium at 157 (Sept. 25–27, 2000) ("Marmasse")	☐
	18	Exhibit B-12 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by David Parsons, The Java Location API, Dr. Dobb's Journal, Jan. 2006, at 53 ("Parsons")	☐
	19	Exhibit B-13 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by Anand Ranganathan et al., MiddleWhere: A Middleware for Location Awareness in Ubiquitous Computing Applications, 3231 Lecture Notes in Comp. Sci. 397 (2004) ("Ranganathan")	☐
	20	Exhibit B-14 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by Timothy Sohn et al., Place-Its: A Study of Location-Based Reminders on Mobile Phones, UbiComp '05: Proceedings of the 7th International Conference on Ubiquitous Computing 232 (Sept. 2005) ("Sohn")	☐
	21	Exhibit B-15 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by Version 1.0 of the Android Operating System, Beta Versions of Android, and Android Software Development Kits ("Android 2007-2008")	☐
	22	Exhibit B-16 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by Location API for Java™ 2 Micro Edition, Version 1.0.1 ("JSR 179")	☐

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	23	Exhibit B-17 - Invalidity of U.S. Patent No. 10,049,387 ("'387 Patent") by U.S. Patent No. 9,779,418 ("'418 Patent")	☐
	24	Exhibit B-18 - Subject Matter Eligibility Contentions for U.S. Patent No. 10,049,387 ("'387 Patent")	☐
	25	Exhibit C-1 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent Application Publication No. 2006/0223494 A1 ("Chmaytelli")	☐
	26	Exhibit C-2 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent No. 7,089,264 ("Guido")	☐
	27	Exhibit C-3 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent App. Pub. No. 2008/0032666 A1 ("Hughes")	☐
	28	Exhibit C-4 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent No. 8,219,115 ("Nelissen")	☐
	29	Exhibit C-5 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. App. Pub. No. 2009/0089288 A1 ("Petersen")	☐
	30	Exhibit C-6 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent App. Pub. No. 2006/0270421A1 ("Phillips")	☐
	31	Exhibit C-7 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent Application Pub. No. 2007/0129888A1 ("Rosenberg")	☐
	32	Exhibit C-8 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent Application Publication No. US 2009/0157632 A1 ("Ryu")	☐
	33	Exhibit C-9 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent Application Pub. No. 2006/0116817 A1 ("Salmre")	☐

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17863208
	Filing Date	2022-07-12
	First Named Inventor	Hardin, Ryan
	Art Unit	
	Examiner Name	
	Attorney Docket Number	0075652.00009

	34	Exhibit C-10 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent No. 7,054,649 ("Yamazaki")	☐
	35	Exhibit C-11 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by Natalia Marmasse & Chris Schmandt, Location-Aware Information Delivery with ComMotion, in Lecture Notes in Computer Science 1927: Handheld and Ubiquitous Computing, Second International Symposium at 157 (Sept. 25–27, 2000) ("Marmasse")	☐
	36	Exhibit C-12 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by David Parsons, The Java Location API, Dr. Dobb's Journal, Jan. 2006, at 53 ("Parsons")	☐
	37	Exhibit C-13 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by Anand Ranganathan et al., MiddleWhere: A Middleware for Location Awareness in Ubiquitous Computing Applications, 3231 Lecture Notes in Comp. Sci. 397 (2004) ("Ranganathan")	☐
	38	Exhibit C-14 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by Timothy Sohn et al., Place-Its: A Study of Location-Based Reminders on Mobile Phones, UbiComp '05: Proceedings of the 7th International Conference on Ubiquitous Computing 232 (Sept. 2005) ("Sohn")	☐
	39	Exhibit C-15 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by Version 1.0 of the Android Operating System, Beta Versions of Android, and Android Software Development Kits ("Android 2007-2008")	☐
	40	Exhibit C-16 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by Location API for Java™ 2 Micro Edition, Version 1.0.1 ("JSR 179")	☐
	41	Exhibit C-17 - Invalidity of U.S. Patent No. 10,984,447 ("'447 Patent") by U.S. Patent No. 10,049,387 ("'387 Patent")	☐
	42	Exhibit C-18 - Subject Matter Eligibility Contentions for U.S. Patent No. 10,984,447 ("'447 Patent")	☐
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Signature	/Ryan J. Hardin/	Date (YYYY-MM-DD)	2022-07-21
Name/Print	Ryan J. Hardin	Registration Number	

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

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First Named Inventor	Hardin, Ryan
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Examiner Name	
Attorney Docket Number	0075652.00009

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7009556		2006-03-06	Stewart	
	2	7080402		2006-07-18	Bates et al.	
	3	7096117		2006-08-22	Gale et al.	
	4	7124370		2006-10-17	Fish	
	5	7219303		2007-05-15	Fish	
	6	7089264		2006-08-08	Guido et al.	
	7	7200673		2007-04-03	Augart	
	8	7207802		2007-04-24	Wilson	

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	11	6867733		2005-03-15	Sandhu et al.	
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Examiner Initial*	Cite No	Publication Number	Kind Code1	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20080215524		2008-09-04	Fuchs et al.	
	2	20080262897		2008-10-23	Howarter et al.	
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	11	20030064705		2003-04-03	Desiderio	
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	23	20090029721		2009-01-29	Doraswamy	
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	28	20060136292		2006-06-22	Bhati et al.	
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	1	WO 2008/082794 A2	WO		2008-07-10	Crawford		☐

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	1	AdMob, Inc., "Help for Advertisers--Ad Pricing", http://www.admob.com/home/help/helpfiles/Advertisers/Ad Pricing, 2009-05-19	☐
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	7	Google, Inc., "How do ads cycle through the search page results?", http://adwords.google.com/support/bin/answer.py?hl=en&answer=87402, 2009-05-18	☐
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	12	Google, Inc., "Why can't I see my ad?", http://adwords.google.com/support/bin/answer.py?hl=en&answer=6105, 2009-05-18	☐
	13	Wayback Machine, "Iphone App Advertisement", http://www.blog.yieldbuild.com/2008/08/21/iphone-app-advertising/, 2008-08-24	☐

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Filing Date	2022-07-12
First Named Inventor	Ryan Hardin
Art Unit	3648
Examiner Name	Olumide Ajibade Akonai
Attorney Docket Number	971600.1001

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17863208
	Filing Date	2022-07-12
	First Named Inventor	Ryan Hardin
	Art Unit	3648
	Examiner Name	Olumide Ajibade Akonai
	Attorney Docket Number	971600.1001

	1	IPR2022-01327, DECISION Granting Institution of Inter Partes Review of US Patent 10,049,387 B2, February 7, 2023.
	2	IPR2022-01328, DECISION Granting Institution of Inter Partes Review of US Patent 10,049,387 B2, February 8, 2023.
	3	IPR2022-01329, DECISION Granting Institution of Inter Partes Review of US Patent 10,049,387 B2, February 8, 2023.
	4	IPR2022-01330, DECISION Granting Institution of Inter Partes Review of US Patent 9,779,418 B2, February 8, 2023.
	5	IPR2022-01331, DECISION Granting Institution of Inter Partes Review of US Patent 9,779,418 B2, February 7, 2023.
	6	IPR2022-01332, DECISION Granting Institution of Inter Partes Review of US Patent 9,779,418 B2, February 8, 2023.
	7	IPR2022-01333, DECISION Granting Institution of Inter Partes Review of US Patent 10,984,447 B2, February 7, 2023.
	8	IPR2022-01334, DECISION Granting Institution of Inter Partes Review of US Patent 10,984,447 B2, February 8, 2023.
	9	IPR2022-01335, DECISION Granting Institution of Inter Partes Review of US Patent 10,984,447 B2, February 8, 2023.

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Attorney Docket Number	971600.1001

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17863208
	Filing Date	2022-07-12
	First Named Inventor	Ryan Hardin
	Art Unit	3648
	Examiner Name	Olumide Ajibade Akonai
	Attorney Docket Number	971600.1001

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Clint R. Mehall/	Date (YYYY-MM-DD)	2023-02-15
Name/Print	Clint R. Mehall	Registration Number	62,380

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

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Electronic Patent Application Fee Transmittal

Application Number:	17863208
Filing Date:	12-Jul-2022
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Filer:	Clint R. Mehall
Attorney Docket Number:	971600.1001

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	260	260
		Total in USD ($)		**260**

Electronic Acknowledgement Receipt

EFS ID:	47538773
Application Number:	17863208
International Application Number:	
Confirmation Number:	2712
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Customer Number:	23280
Filer:	Clint R. Mehall
Filer Authorized By:	
Attorney Docket Number:	971600.1001
Receipt Date:	15-FEB-2023
Filing Date:	12-JUL-2022
Time Stamp:	14:59:39
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$260
RAM confirmation Number	E20232EE59557762
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11	Fee Worksheet (SB06)	fee-info.pdf	38121 6f3febd2c872492690a40b42b4b0ac8af4bc85f1	no	2
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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Ryan Hardin
Application No.: 17/863,208
Filing Date: 12 July 2022
Examiner: Ajibade Akonai, Olumide
Group Art Unit: 3648
Docket No.: 971600.1001
Title: EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS

RESPONSE TO OFFICE ACTION

Date: 07 February 2023

EFS-Web
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

This is a response to an Office Action ("the Office Action") mailed November 7, 2022 by the United States Patent and Trademark Office ("the Office") regarding the above-identified application ("the Instant Application"). The applicants of the Instant Application ("the Applicants") request reconsideration of the Instant Application in view of the amendments and/or remarks presented herein.

Amendments in the Claims begin on page 2 of this correspondence;

Remarks begin on page 13 of this correspondence; and

Conclusions begin on page 39 of this correspondence.

Home Depot - Exhibit 1026 - Page 460

AMENDMENTS IN THE CLAIMS

Please amend the claims as follows. This listing of the claims will replace all prior versions, and listings, of the claims in the Instant Application.

1. (Currently Amended) A system for creating and offloading location awareness, the system including a mobile device and comprising:

at least one memory;

at least one processor operably coupled to the at least one memory; and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

sending, to content delivery platform software:

a request to have a[[n]] boundary identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the boundary identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; and

receiving, via the computer program, the boundary identifier delivered by the content delivery platform software after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest.

2. (Currently Amended) The system of claim 1, wherein the code further comprises at least one instruction for, in response to receiving, via the computer program, the boundary identifier delivered by the content delivery platform software, displaying, via a connected display device, content associated with the selected geographic area of interest.

3. (Currently Amended) The system of claim 1, wherein:

the code further comprises at least one instruction for sending the boundary identifier to the content delivery platform software; and

the computer program is an application program.

4. (Original) The system of claim 1, wherein:

the geometric construct comprises at least a latitude value, a longitude value, and a radius value; and

the geographic reservation data further comprises information indicating an area bounded by the at least one perimeter as the selected geographic area of interest.

5. (Currently Amended) The system of claim 4, wherein:

the selected geographic area of interest is a first selected geographic area of interest; and

the code further comprises at least one instruction for sending, to the content delivery platform software, a second request to have a[[n]] boundary identifier, being associated with a second selected geographic area of interest, delivered to the computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest, wherein the second selected geographic area of interest is distinct from the first selected geographic area of interest.

6. (Canceled).

7. (Currently Amended) The system of claim [[6]]1, wherein:

receiving, via the computer program, the boundary identifier delivered by the content delivery platform software comprises receiving the boundary identifier after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time.

8. (Currently Amended) The system of claim 7, wherein the predetermined length of time is not a predetermined length of time provided to the content delivery platform software in connection with a particular request to have a[[n]] boundary identifier delivered to a computer program on the mobile device after it has been determined that the mobile device has at least entered a selected geographic area of interest and has remained therein for at least the predetermined length of time but is a predetermined length of time set by the content delivery platform software.

9. (Currently Amended) The system of claim 1, wherein the boundary identifier is to be delivered exclusively to the computer program and not to be broadcast to other computer programs on the mobile device.

10. (Currently Amended) A system for creating and offloading location awareness, the system including a mobile device and comprising:

at least one memory;

at least one processor operably coupled to the at least one memory; and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

receiving, via content delivery platform software:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic

location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest;

reserving, in the at least one memory, the selected geographic area of interest for delivery of the identifier to the computer program;

obtaining location information representing at least one physical geographic location of the mobile device; and

delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest;

the content delivery platform software residing in the mobile device.

11. (Previously Presented) The system of claim 10, wherein the code further comprises at least one instruction for:

sending, to the content delivery platform software, the request and the geographic reservation data; and

receiving, via the computer program, the identifier in response to the delivering.

12. (Previously Presented) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving the identifier via the content delivery platform software; and

in response to receiving the identifier via the content delivery platform software, storing, in the at least one memory, the identifier; and

delivering the identifier to the computer program comprises delivering the identifier from the at least one memory.

13. (Original) The system of claim 10, wherein delivering the identifier to the computer program comprises delivering the identifier after it has been determined that the mobile device has at least remained within the selected geographic area of interest for at least a predetermined length of time.

14. (Original) The system of claim 12, wherein the code further comprises at least one instruction for:

preserving delivery of the identifier from the at least one memory to the computer program until after it has been determined that the mobile device has remained within the selected geographic area of interest for at least a predetermined length of time.

15. (Canceled).

16. (Original) The system of claim 10, wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

17. (Original) The system of claim 10, wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time.

18. (Original) The system of claim 10, wherein the code further comprises at least one instruction for creating a notification that the mobile device has at least entered the selected geographic area of interest.

19. (Previously Presented) The system of claim 10, wherein:

reserving the selected geographic area of interest for delivery of the identifier to the computer program comprises reserving the selected geographic area of interest only after it has been determined that the selected geographic area of interest is available to be reserved; and

the code further comprises at least one instruction for sending a notification indicating that the selected geographic area of interest has been reserved.

20. (Original) The system of claim 16, wherein the determining considers whether at least a predetermined portion of the selected geographic area of interest intersects the mobile device's location circle, wherein the location circle comprises the area contained within a predetermined radius of the geographic location of the mobile device.

21. (Currently Amended) The system of claim 10, wherein the code further comprises at least one instruction for:

receiving, from a third party tracking source, ~~storing, on the mobile device,~~ location information corresponding to at least one location of ~~received from~~ one or more mobile devices, wherein ~~the location information received from~~ the one or more mobile devices is not the mobile device and the location information received from the third party tracking source ~~is received by the one or more mobile devices from one or more third party sources and~~ is to be used, in combination with ~~cellular tower~~ information received via an antenna of the mobile device, for positioning the geographic location of the mobile device; and

using the ~~stored~~ location information received from the third party tracking source~~one or more mobile devices~~, in combination with wireless ~~cellular tower~~ information received via an antenna of the mobile device operable to communicate with a wireless ~~cellular~~ network, to position the geographic location of the mobile device.

22. (Previously Presented) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving, via the content delivery platform software:

a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to a second computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest; and

second geographic reservation data to have the second selected geographic area of interest reserved for delivery of the second identifier to the second computer program, wherein the second geographic reservation data comprises a second geometric construct used to establish at least one perimeter as a boundary for the second selected geographic area of interest;

reserving, in the at least one memory, the second selected geographic area of interest for delivery of the second identifier to the second computer program; and

delivering the second identifier to the second computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the second selected geographic area of interest.

23. (Previously Presented) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving, via the content delivery platform software:

a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to the computer program after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest; and

second geographic reservation data to have the second selected geographic area of interest reserved for delivery of the second identifier to the computer program, wherein the second geographic reservation data comprises a second geometric construct used to establish at least one perimeter as a boundary for the second selected geographic area of interest;

reserving, in the at least one memory, the second selected geographic area of interest for delivery of the second identifier to the computer program; and

delivering the second identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the second selected geographic area of interest.

24. (Previously Presented) The system of claim 10, wherein the code further comprises at least one instruction for performing a verification whether the computer program has authorization to initiate a location session with the content delivery platform software, wherein:

if the verification passes, the computer program is allowed to initiate a location session with the content delivery platform software; and

if the verification fails, the computer program is not allowed to initiate a location session with the content delivery platform software.

25. (Previously Presented) The system of claim 24, wherein performing the verification comprises performing, for the computer program, a check on a key being previously stored in a data store that the content delivery platform software uses for validating location sessions initiated by one or more computer programs installed on the mobile device.

26. (Original) The system of claim 10, wherein the obtained location information is determined at least in part by using cellular tower information received via a cellular

antenna of the mobile device and not by using information received via a GPS antenna of the mobile device.

27. (Original) The system of claim 16, wherein determining that the mobile device has at least entered the selected geographic area of interest comprises determining that the mobile device has at least entered the selected geographic area of interest by at least use of a specialized processor for processing whether the mobile device has at least entered the selected geographic area of interest.

28. (Currently Amended) The system of claim 11, wherein:

the code further comprises at least one instruction for determining that the mobile device has at least entered the selected geographic area of interest, wherein the at least one instruction for determining is configured for execution by a specialized processor of the mobile device, and the specialized processor is distinct from the at least one processor on which ~~used by~~ the at least one instruction for sending the request and the geographic reservation data to the content delivery platform software executes.

29. (Currently Amended) A non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor to perform the steps of:

sending, to content delivery platform software:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the ~~a~~selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to

establish at least one perimeter as a boundary for the selected geographic area of interest; and

receiving, via the computer program, the identifier delivered by the content delivery platform software after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest.

30. (Currently Amended) A non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor to perform the steps of:

receiving, via content delivery platform software:

a request to have an alphanumeric identifier ~~delivered~~, being associated with a selected geographic area of interest, delivered to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the ~~a~~selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the alphanumeric identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest;

reserving, in at least one memory ~~of the mobile device~~, the selected geographic area of interest for delivery of the alphanumeric identifier to the computer program;

obtaining location information representing at least one physical geographic location of the mobile device; and

delivering the alphanumeric identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

31. (New) The system of claim 1, wherein the content delivery platform software resides in the mobile device.

32. (New) The non-transitory computer readable medium of claim 29, wherein the identifier is an alphanumeric identifier.

REMARKS

The Instant Application has been reviewed in light of the Office Action mailed November 7, 2022. At the time of the Office Action, claims 1-30 were pending in the Instant Application. The following actions were taken or matters raised in the Office Action:

I. Claims 6-8, 15, 21, and 24-25 were rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement;

II. Claims 1-5, 9-12, 16, 20, 22-23, and 27-30 were rejected as being anticipated under pre-AIA 35 U.S.C. § 102(e); and

III. Claims 13-14, 17-19, and 24-26 were rejected as being obvious under pre-AIA 35 U.S.C. § 103(a).

Claims 1-3, 5, 7-10, 21, and 28-30 have been amended without prejudice and new claims 31 and 32 have been added.

Claim 1 has been amended to include the language of claim 6, which has accordingly been canceled. Claim 6 was rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement, but was not subject to a prior art rejection. Applicants traverse the written description rejection below, and thus submit that claim 1 is patentable.

Claim 10 has been amended to include the language of claim 15, which has accordingly been canceled. Claim 15 was rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement, but was not subject to a prior art rejection. Applicants traverse the written description rejection below, and thus submit that claim 10 is patentable.

The Applicants submit that the presentations and/or amendments made herein do not involve the introduction of any new matter. Accordingly, the Applicants respectfully request reconsideration and favorable action in this case.

Examiner Interview

On December 20, 2022, Ryan Hardin, co-inventor and Applicant, conducted a video conference interview with Examiner Olumide Ajibade Akonai ("the Examiner"). Additionally present for the interview were Applicants' undersigned representative and noted expert Scott A. Denning, providing opinions from the standpoint of a person of ordinary skill in the relevant art at the time of the invention.

The §112 and §102 rejections were discussed, but no agreement was reached. Applicant and Applicants' undersigned representative sincerely thank the Examiner for his courtesy during the Interview.

I. Rejections under 35 U.S.C. § 112 (pre-AIA), first paragraph

Claims 6-8, 15, 21, and 24-25 were rejected under 35 USC §112 (pre-AIA), first paragraph, as failing to comply with the written description requirement.

1. The Written Description Requirement

To satisfy the written description requirement, an "objective inquiry into the four corners of the specification" from the perspective of a POSITA is made to determine if the specification "describe[s] an invention understandable to that skilled artisan and show[s] that the inventor actually invented the invention claimed." *Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1361 (Fed. Cir. 2018). Put another way, the "test for sufficiency is whether the disclosure of the

application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of that earlier filing date." *Id.* The Federal Circuit has stated that "the disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter at issue." *Yingbin-Nature (Guangdong) Wood Indus. Co. v. ITC*, 535 F.3d 1322, 1334 (Fed. Cir. 2008). Also, when the field of the invention is a predictable art (as here), "a lower level of detail is required to satisfy the written description requirement than for unpredictable arts." *Hologic*, 884 F.3d at 1361.[1] It is also well established that, "prior patents reflecting the state of the art at the time of the invention and expert testimony regarding that evidence" may be relied on to establish the knowledge of a POSITA. *Id.* at 1363; *id.* at 1364 (holding that it was proper for the Board to consider prior art in determining "what the specification reasonably conveys to the skilled artisan").

Claims 6-8

Claim 6 previously recited the system of claim 1, "wherein the identifier delivered by the content delivery platform software is a boundary identifier." This feature is now recited in claim 1, and claim 6 has accordingly been canceled.

The Office Action states that the specification "does not provide sufficient details such that one of ordinary skill in the art would understand how content delivery platform software delivers a boundary identifier to the computer program on the mobile device" because "the [] specification

[1] Mechanical and electrical-based inventions involve "predictable factors" as "performance characteristics [can be] predicted by resort to known scientific laws." *In re Fisher*, 427 F.2d 833, 839 (CCPA 1970). This contrasts with unpredictable fields such as chemistry and biology. *Burroughs Welcome Co. v. Barr Labs, Inc.*, 40 F.3d 1223, 1228 (Fed. Cir. 1994).

only discloses allowing the sponsors to reserve particular geographic areas. The sponsor can also establish perimeters defining geographic areas of exclusive or semi-exclusive control." *Office Action*, page 2. The Office Action says that "This is recited in paragraphs [0045][0046]", and after citing those paragraphs, it then concludes: "Therefore, in the specification, the boundary identifier(s) is provided by the sponsor(s) to the content delivery platform software, and not from the content delivery platform software to the computer program on the mobile device as the claim seems to suggest." The Office Action additionally lists the following paragraphs as showing where "the specification also discloses delivering the sponsor's content (advertisements) from the content delivery platform to the mobile device": ¶¶ 0018, 0021, 0028, 0032-0033, 0038. *Office Action*, page 3. The Office Action says that "the specification does not demonstrate that the applicant has made an invention that achieves the claimed function because the invention is not described with sufficient detail such that one of ordinary skill in the art can reasonably conclude that the inventor hand [sic] possession of the claimed invention". *Office Action*, page 4.

The Applicants respectfully disagree and submit that a POSITA at the time of the present invention would understand from reading the application as a whole that the identifier delivered by the content delivery platform software is a boundary identifier in some disclosed examples. The application discloses:

(1) The content deliverable by the content delivery platform software is "content suitable for delivery to mobile devices via registered applications" (¶ 0050)[2].

(2) Defined geographic areas, which can include boundary identifiers, are suitable for

[2] All citations herein refer to the specification of the present application. It is noted that the present application has the exact same specification and drawings as the priority application, with the exception that the first paragraph of present application includes priority information.

delivery to the registered application on the mobile device representing the sponsor because of the teachings that:

(a) "suitable boundary identifiers" can establish perimeters defining the geographic areas (¶ 0046);

(b) the defined geographic areas can be presented to the sponsor (¶¶ 0047-0049; see e.g. ¶ 0047 ("Some embodiments employ pre-defined areas, or allow selection of areas based on predetermined factors, and *present sponsors a choice* from among previously established options."); see also e.g. ¶ 0049 ("the sponsor can be *notified* that an interest in the geographic area has been reserved for him")); and

(c) the sponsor can be represented by the registered application (¶ 0020).

To support the Applicants' position, the Applicants submit herewith a Declaration from Scott Denning (the "*Denning Declaration*"), which includes statements also made by Mr. Denning filed in *inter partes* reviews for patents granted from the present disclosure. As explained in the *Denning Declaration*, Applicants submit that Mr. Denning is qualified to present opinions from the viewpoint of a POSITA, and the present specification, when viewed in light of the knowledge of a POSITA, reasonably conveys to those skilled in the art that the inventors were in possession of the content delivery platform software delivering a boundary identifier to a computer program (e.g., registered application program) on the mobile device[3]

[3] R. Denning made similar statements at the request of Patent Owners Ryan Hardin and Andrew Hill in inter partes reviews IPR2022-01327; IPR2022-01328; IPR2022-01329 challenging U.S. Patent No. 10,049,387 from which the presents application claims priority and which also claims priority of the priority application. Mr. Denning made similar declarations in inter partes reviews IPR2022-01330; IPR2022-01331; IPR2022-013332 challenging U.S. Patent No. 9,779, 418 and inter partes reviews IPR2022-01333; IPR2022-01334; IPR2022-013335 challenging U.S. Patent No. 10,984,447.

With respect to (1) above, for example, ¶ 0050 describes content that can be delivered by a content delivery platform to a computer program on a mobile device, and that content includes identifiers in the form of "alphanumeric identifiers" and "other content suitable for delivery to mobile devices via registered applications." ¶ 0050 ("This content can include advertisements, still image content, animated content, video content, audio content, alphanumeric *identifiers*, or *other content suitable for delivery to mobile devices via registered applications*. As illustrated by block 417, the content received from the sponsor can be stored for later delivery to registered applications running on mobile devices having target locations that exist within the sponsor's reserved area.") (emphasis added). This discloses to a POSITA that the content delivery platform software may deliver to registered application programs suitable "content" including "identifiers." *Denning Declaration*, ¶ 24.

With respect to (2)(a) for example, a POSITA would understand that the specification provides that boundary identifiers can be used to establish a geographic area to be reserved by a sponsor. ¶ 0046 ("a combination of coordinates and geometric constructs can be used in conjunction with other suitable *boundary identifiers* to establish an area that may be reserved specifically for content related to a particular advertiser or sponsor") (emphasis added). *Denning Declaration*, ¶ 25.

With respect to (2)(b) for example, the application discloses that the content delivery platform can "present sponsors a choice from among previously established options." ¶ 0047. Next, ¶ 0049 discloses that "the sponsor can be notified that an interest in the geographic area has been reserved for him." In both of these instances, a POSITA would understand from these disclosures that information regarding the geographic area, including a boundary identifier, would be sent from the content delivery platform software to the sponsor. *Denning Declaration*, ¶ 26.

The specification thus discloses to a POSITA that Applicants were in possession of an invention including the content delivery platform software delivering boundary identifiers, as claimed. That leaves only the issue of whether the specification also discloses that the "sponsors" may be represented by their registered application programs, such that the application programs may receive the boundary identifiers from the content delivery platform software as claimed and outlined in 2(c) above. With respect to that issue, the application at ¶ 0020 discloses that the "application programs" on the mobile devices may come from multiple sources, including the sponsors. This paragraph teaches that "a registered application program is provided to mobile devices by developer platform 108, content delivery platform 112, *one of sponsor A 121, sponsor C 123, or sponsor B 125*, or by another desired delivery mechanism" (emphasis added).

A POSITA would have understood from ¶ 0020 of the application that the registered application programs on the mobile device may come from multiple different sources, including developers via the developer platform, content providers via the content delivery platform, and/or one or more sponsors. *Denning Declaration*, ¶ 27.

A POSITA would have also understood from ¶ 0019 of the application that the specification's disclosures teach that the sponsors may be represented by their application programs, and as such are able to control the functionality of the application programs. *Denning Declaration*, ¶ 27. For example, ¶ 0019 states that the inventive system includes "systems or individuals operating under control of sponsor A 121, sponsor C 123, and sponsor B 125." This is consistent with other portions of the specification teaching that the entire invention may be implemented in a combination of hardware and/or software. Id. at ¶¶ 0064, 0067, 0068. A "system" may be implemented in software, such as an application program. See Microsoft Computer Dictionary, submitted herewith. Accordingly, the specification sufficiently discloses to a POSITA

that an application program located on the mobile device may be under control of the "sponsor," and therefore the specification's references to the "sponsor" in some embodiments encompasses the application programs originating from a sponsor. *Denning Declaration*, ¶ 29. This in turn informs a POSITA that an application program, acting on behalf of its sponsor, may request to reserve a geographic area of interest, and receive from the content delivery platform software information regarding the geographic area, including boundary identifiers. *Denning Declaration*, ¶¶ 28-29.

In this regard, and as explained above, a POSITA is informed from at least ¶¶ 0020, 0045 to 0050 that in some examples (1) the content deliverable by the content delivery platform software is "content suitable for delivery to mobile devices via registered applications" (¶ 0050), and (2) information regarding defined geographic areas are suitable for delivery to the registered application programs. *Denning Declaration*, ¶ 30. From these disclosures, a POSITA would understand that geographic areas delivered to registered application can be boundary identifiers, and boundary identifiers are deliverable as content to a computer program on a mobile device because boundary identifiers are content suitable for delivery to mobile devices via registered applications. *Denning Declaration*, ¶ 31. In other words, from at least ¶¶ 0020, 0045 to 0050 the application discloses that the content delivery platform software can deliver boundary identifiers defining geographic areas to registered applications representing sponsors, and thus these boundary identifiers are one of the possible forms of content deliverable by the content delivery platform software to a computer program on a mobile device. *Denning Declaration*, ¶ 31. Thus, a POSITA would understand that at least ¶¶ 0020, 0045 to 0050 disclose that identifiers, including boundary identifiers, are deliverable by content delivery platform software to a computer program on a mobile device as claimed. *Denning Declaration*, ¶ 32.

In summary, the specification discloses that the content deliverable by the content delivery platform software is "content suitable for delivery to mobile devices via registered application" (¶ 0050); and that geographic areas, which can be defined by perimeters having boundary identifiers, are suitable for delivery to the registered application because the specification teaches geographic areas are actually delivered to the sponsor (¶¶ 0047-0049), and such a sponsor may be represented by the registered application on the mobile device (¶ 0020). In other words, the specification discloses that the geographic areas having boundary identifiers are in some examples delivered to mobile devices via registered applications, and thus because boundary identifiers are delivered in such circumstances, boundary identifiers are content suitable for delivery to mobile devices via registered applications in the context of the present specification. The specification accordingly discloses that boundary identifiers are content deliverable to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and also that boundary identifiers can be requested for delivery to a computer program on a mobile device in such a manner.

Therefore, the Applicants submit that the specification demonstrates that the features previously in claim 6 and now in claim 1, are described with sufficient detail such that a POSITA would reasonably conclude that the inventors had possession of the claimed limitation as of the priority date, and thus, claim 1 satisfies the written description requirement under 35 USC §112 (pre-AIA), first paragraph. Accordingly, the Applicants request withdrawal of the written description rejection of claim 6 under 35 USC §112 (pre-AIA), first paragraph.

Claims 7-8 were rejected under rejected under 35 USC §112 (pre-AIA), first paragraph, by virtue of being dependent on claim 6. The Applicants thus submit that claims 7-8 satisfy the written

description requirement under 35 USC §112 (pre-AIA), first paragraph by virtue of claim 6's compliance with the written description, and likewise, the Applicants request withdrawal of the written description rejection of claims 7-8 under 35 USC §112 (pre-AIA), first paragraph.

Claim 15

Canceled claim 15 provides a system claim 10, "wherein the content delivery platform software resides in the mobile device." Claim 15 has been incorporated into claim 10.

The Office Action states that the specification is "devoid of any indication of any content delivery platform software that resides in the mobile device. Instead, the applicant specification only discloses a computer program in the mobile device." *Office Action*, page 4, citing ¶¶ 0019-0020. The Office Action states that "[a]ny content delivery platform software will most likely be on the content delivery platform 112, which, based on the applicant's disclosure and drawings, is separate from the mobile device." The Office Action then concludes: "Therefore, the claimed limitation [] is not taught, suggested, or made obvious by the applicant's specification and thus constitutes new matter". *Office Action*, page 4.

The Applicants respectfully disagree. The Applicants submit that the full specification, viewed through the knowledge and skill a POSITA would bring to bear when reviewing the specification, confirms that the Applicants were in possession of the claimed invention.

To support the Applicants' position, the Applicants submit the *Denning Declaration*, which includes statements that the present specification, when viewed in light of the knowledge of a POSITA, reasonably conveys to those skilled in the art that the inventors were in possession of this claimed limitation.

First, paragraph [0064] of the application states:

> [0064] The methods and processes discussed previously, as well as other embodiments, may be implemented in a processing system executing a set of instructions stored in memory, or on a removable computer readable medium. An example of a system according to some embodiments is illustrated in FIG. 7.

This paragraph follows the description of the processes in Figs. 1 to 6, and thus discloses that the methods and processes, which include the processes shown in Figs. 1 to 6, can be performed on a single processing system. *Denning Declaration*, ¶ 37. It should be noted that paragraph [0064] does not state that the processing system can implement only certain aspects of the methods and processes discussed previously; it states the processing system can implement the methods and processes discussed previously. *Denning Declaration*, ¶ 37. In other words, a single computer – i.e., a processing system, which can be the processing system of Fig. 7 – can implement the processes shown in Figs. 1 to 6. *Denning Declaration*, ¶ 37. Processes of the content delivery platform are described with respect to Figs. 1 to 6. *Denning Declaration*, ¶ 37.

A POSITA would also have recognized that the specification supports that the processing system is in at least some embodiments a mobile device. *Denning Declaration*, ¶ 38. The description of "mobile device" in paragraph [0022] of the application shows that a number of different types of computers, including desktop computers, laptop computers and mobile phones are "mobile devices" within the scope of the present application. *Denning Declaration*, ¶ 38. Paragraph [0022] discloses:

> … various computing devices, including portable computer 179 , which may include laptop computers, desktop computers, palmtop computers, tablet computers, digital video recorders (DVRs), television set-top boxes, or any of various general or dedicated purpose computers that can be carried or transported; wireless device 177 , which can include personal digital assistants (PDAs), cellular telephones, personal communication system (PCS) devices, music players, video players, gaming consoles, or portable televisions; or any of various devices that may be included in, or carried by, motor vehicles 171 , 173 , or 175 , including navigation systems, satellite radios, or the like. It should be noted that the term ***"mobile device" can include all computing devices as listed above*** that can communicate with content delivery platform 112 , that the above listing of devices

> is not exhaustive, and that a device that qualifies as one type of device may also be considered to be of another type. For example, **a mobile phone may also be a general purpose computing device**, a radio, a television, and a navigation system..

¶ [0022].

Processing system of Fig. 7 is such a computer, and thus a mobile device falls within the meaning of such a processing system provided by the specification. *Denning Declaration*, ¶ 39.

To further bolster the above, the present application also discloses how a mobile device includes software instructions for implementing all of the processes of Fig. 1 to 6 of the present application, including the processes of the content delivery platform. *Denning Declaration*, ¶ 40. For example, the specification discloses in several places that the processes can be implemented in software on a mobile device, including for example the following portions of the specification:

> Various embodiments can be implemented as a system that includes memory, a communications interface, and a processor that cooperate to store and execute a program of instructions implementing various methods and techniques described herein. Furthermore, some embodiments can be implemented on a computer readable medium tangibly embodying a program of instructions.

¶ [0010].

> The methods and processes discussed previously, as well as other embodiments, may be implemented in a processing system executing a set of instructions stored in memory…

¶ [0064].

> Various disclosed embodiments can be implemented in hardware, software, or a combination containing both hardware and software elements. In one or more embodiments, ***the invention is implemented in software, which includes but is not limited to firmware, resident software, microcode, etc***. Some embodiments may be realized as a computer program product, and may be implemented as a computer- usable or computer-readable medium embodying program code for use by, or in connection with, a computer, a processor, or other suitable instruction execution system.

¶ [0067] (emphasis added).

Based on the above disclosures, a POSITA would have understood that the specification discloses that the methods and systems described therein can be implemented through software run or stored on a mobile device. *Denning Declaration*, ¶ 41. This includes having software instructions for implementing the content delivery platform on the mobile device, as claimed. *Denning Declaration*, ¶ 41.

A POSITA would have also understood that the term "platform" includes implementation through software on a mobile device. *Denning Declaration*, ¶ 42; citing, e.g., Newton's Telecom Dictionary, 20th ed. (2004), definition for "platform," submitted herewith. ("Platform is a loosely-defined word for a software operating system and/or open hardware, which an outsider could write software for. Windows98 is a platform. So is Windows 2000. If every phone system were a platform, then every owner of that phone system could write software for his phone system or buy outside-produced software and have his phone system work more to his liking. That's the objective of creating a platform. See also OAI and Platform Independence."). Other contemporaneous definitions likewise support this understanding. *Denning Declaration*, ¶ 42; citing Microsoft Computer Dictionary (submitted herewith). Based on the plain meaning of the term, a POSITA would have understood that the content delivery platform includes software that is taught in the present application as being, in whole or in part, on the mobile device including for example the one in Fig. 7. *Denning Declaration*, ¶ 42.

Further, the specification refers to the "content delivery platform" interchangeably as a "content delivery ***server***":

> [T]he mobile device can forward information associated with the target location to the content delivery platform, or ***the content delivery server*** can obtain location information from a third party application or device, from a home location register, from a visiting location register, from raw, differential, processed or semi-

> processed GPS data, from power signals used in code-division multiple access or other wireless communications systems or otherwise.

¶ [0059] (emphasis added).

A POSITA would understand this to mean that the content delivery platform can relate to the application program in a server/client relationship. *Denning Declaration*, ¶ 43.

This leads to the question of whether a POSITA would have understood from the specification that the content delivery platform and/or its software embodiment, acting as server, would be implemented on the same mobile device as the application program, acting as client. Given a POSITA's knowledge at the relevant time, the answer is yes.

As explained in the *Denning Declaration*, it was well-known by May 2009 that a client-server relationship could exist and function on a mobile device. *Denning Declaration*, ¶ 44. For example, the paper "Client-Server Computing in Mobile Environments" Jin Jing et al. ("Jing") was published in 1999 in the ACM Computing Surveys journal, and teaches that client-server models may be emulated on a mobile device. *Denning Declaration*, ¶ 45. This is illustrated in Fig. 8 of Jing.

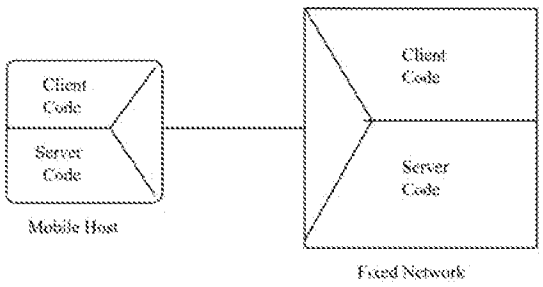


Figure 8. Extended client-server model.

Further, U.S. Pub. No. 2009/0043657 was published February 12, 2009 and is titled "System and Methods for Selecting Advertisements Based on Caller Identifier Information" ("Swift"). Swift describes another example of a mobile device implementing a client-server

relationship whereby mobile devices may let web applications run locally by "maintaining a client-server programming model":

> [I]t is possible to let web applications run locally on the computing device 202 (e.g., mobile device or desktop computer) without outside server dependencies to be able to access local services and maintain a client-server programming model based on web programming techniques and with web security models intact.

Similarly, the 2001 textbook *Modern Operating Systems*, 2d Ed. by A. Tanenbaum discloses a "client-server model" whereby "*a client communicates with a server* by sending it messages, [and] the client need not know whether the message is handled *locally in its own machine*, or whether it was sent across a network to a server on a remote machine. As far as the client is concerned, the same thing happens in both cases: a request was sent and a reply came back" (emphasis added).

These prior art disclosures thus provide additional examples demonstrating that by the priority date of the Instant Application, it was known to POSITA that a client-server relationship may be implemented locally on a mobile device. *Denning Declaration*, ¶ 48. See *Hologic*, 884 F.3d at 1363 (affirming the Board's finding that there was written description support for claim terms in part because "prior patents reflecting the state of the art at the time of the invention and expert testimony regarding that evidence" supporting the Board's findings). Combined with the teachings in the application that (1) the content delivery platform may be implemented in software; (2) the processes disclosed in the application may be implemented in software on a computing device; and (3) a mobile device may be a computing device within the meaning of the application, leads to the conclusion that a POSITA would have understood the disclosures in the May 1, 2009 application disclosed that the inventors were in possession of an invention whereby a content

delivery platform and/or its software embodiment would be included on a mobile device[4]. *Denning Declaration*, ¶ 49.

Therefore, the Applicants submit that the specification demonstrates that the features previously in claim 15 and now in claim 10, are described with sufficient detail such that a POSITA would reasonably conclude that the inventors had possession of the claimed limitation as of the priority date, and thus, claim 10 satisfies the written description requirement under 35 USC §112 (pre-AIA), first paragraph. Accordingly, the Applicants request withdrawal of the written description rejection of claim 15 under 35 USC §112 (pre-AIA), first paragraph.

Claim 21

The Office Action states that the language of claim 21 is not supported by the present specification.

To advance prosecution, claim 21 has been amended without prejudice to recite:

"wherein the code further comprises at least one instruction for:

receiving, from a third party tracking source, location information corresponding to at least one location of one or more mobile devices, wherein the one or more mobile devices is not the mobile device and the location information received from the third party tracking source is to be used, in combination with information received via an antenna of the mobile device, for positioning the geographic location of the mobile device; and

[4] In this regard, the Office Action's reliance on the figures of the application assumed as showing a content delivery platform separate from the mobile device is not controlling, as "the written description does not require that every claimed element be illustrated in the figures, particularly in predictable arts…." *Hologic*, 884 F.3d at 1362.

using the location information received from the third party tracking source, in combination with wireless information received via an antenna of the mobile device operable to communicate with a wireless network, to position the geographic location of the mobile device."

This language is supported in the specification as filed for example at ¶ [0025] and ¶ [0059].

Claims 24-25

Applicants submit that the listing of these claims is a typographical error, as no explanation was provided in the Office Action stating any language of these claims was not supported by the application as filed. The Applicants request withdrawal of the written description rejection of claims 24-25 under 35 USC §112 (pre-AIA), first paragraph.

II. Rejections under pre-AIA 35 U.S.C. § 102(e)

The Office has rejected claims 1-5, 9-12, 16, 20, 22-23, and 27-30 as being anticipated under pre-AIA 35 U.S.C. § 102(e) by Yoon et al US 20080270235 (hereinafter Yoon).

Claims 1-5 and 9

Claim 1 recites "[a] system for creating and offloading location awareness, the system including a mobile device and comprising:

at least one memory;

at least one processor operably coupled to the at least one memory; and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

sending, to content delivery platform software:

a request to have a *boundary identifier*, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device *after it has been determined*, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the boundary identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; and

receiving, via the computer program, the boundary identifier delivered by the content delivery platform software after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest."

The Applicants respectfully submit that Yoon does not disclose at least "**a request to have a *boundary identifier***, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest" as recited in claim 1.

Claim 1 has been amended to include the language of claim 6, which has accordingly been canceled. Claim 6 was rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement, but was not subject to a prior art rejection. The feature that the identifier is a boundary identifier was not rejected in view of any prior art. Applicants traverse the written description rejection above, and thus submit that claim 1 is patentable.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(a)(1) of independent claim 1, and its dependent claims 2-5 and 9, is respectfully requested.

Claims 10-12, 16, 20, 22-23, 27-28

Claim 10, as amended, recites "[a] system for creating and offloading location awareness, the system including a mobile device and comprising:

at least one memory;

at least one processor operably coupled to the at least one memory; and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

receiving, via content delivery platform software:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device *after it has been determined*, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest;

reserving, in the at least one memory, the selected geographic area of interest for delivery of the identifier to the computer program;

obtaining location information representing at least one physical geographic location of the mobile device; and

delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest;

the content delivery platform software residing in the mobile device."

The Applicants respectfully submit that Yoon does not disclose at least "**the content delivery platform software residing in the mobile device**" as recited in claim 10.

Claim 10 has been amended to include the language of claim 15, which has accordingly been canceled. Claim 15 was rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement, but was not subject to a prior art rejection. The feature that the content delivery platform software resides in the mobile device was not rejected in view of any prior art. Applicants traverse the written description rejection above, and thus submit that claim 10 is patentable.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(a)(1) of independent claim 10, and its dependent claims 11-12, 16, 20, 22-23, and 27-28, is respectfully requested.

Dependent Claim 22: Argued Separately

Yoon also does not disclose the features of many of the dependent claims. For example, there is absolutely no indication that Yoon discloses the features of claim 22 because Yoon especially does not disclose "the code further comprising at least one instruction for: receiving, via the content delivery platform software: **a second request to have a second identifier**, being associated with a second selected geographic area of interest, ***delivered to a second computer program*** **on the mobile device** after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest" as recited in claim 22. The Office Action cites all the paragraphs of Yoon that were used to reject claim 10 to reject claim 22, but does not point to where these paragraphs teach requests are received to have anything delivered to two different computer programs on the same mobile device, and a POSITA would not find any portions of these cited paragraphs of Yoon remotely providing such a disclosure. *Denning Declaration*, ¶ 59.

In contrast, paragraphs [0029], [0039], [0051] and [0054] for example of the present specification disclose that two different computer programs, in the form of registered applications, can be executed on the same mobile device, and thus requests for content such as identifiers can be received by the content delivery platform software for delivery to two different computer programs running on the same mobile device. *Denning Declaration*, ¶ 60. Yoon does not provide any remotely analogous disclosure.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(a)(1) of dependent claim 22 is respectfully requested.

Claim 29

Claim 29 recites "[a] non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor to perform the steps of:

sending, to content delivery platform software:

a request to have an identifier, being associated with a selected geographic area of interest, **delivered to a computer program on a mobile device *after it has been determined***, by at least use of location information representing at least one physical geographic location of the mobile device, **that the mobile device has at least entered the selected geographic area of interest**; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; and

receiving, via the computer program, the identifier delivered by the content delivery platform software after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest.

The Applicants respectfully submit that Yoon does not disclose at least a "non-transitory computer readable medium causing at least one processor to perform the step[] of: sending, **to content delivery platform software**: **a request to have an *identifier***, being associated with a selected geographic area of interest, **delivered to a computer program on the mobile device *after it has been determined***, by at least use of location information representing at least one physical geographic location of the mobile device, **that the mobile device has at least entered the selected geographic area of interest**" as recited in claim 29.

First, Yoon does not disclose instructions for sending a request to have an ***identifier*** or anything remotely analogous to an ***identifier***. *Denning Declaration*, ¶ 52. Yoon merely relates to a system for providing *advertisements* that receives a location-based *advertisement* from an advertiser. *Denning Declaration*, ¶ 52. An advertisement is not an identifier. *Denning Declaration*, ¶ 52. This is clear from ¶ 0050 of the present application which lists advertisements and identifiers as being different content. *Denning Declaration*, ¶ 52. Thus, Yoon does not

disclose "at least one instruction for: sending, to content delivery platform software: **a request to have an *identifier*** . . ." as claimed

Second, the claim language "code configured for execution by the at least one processor, wherein the code comprises at least one instruction for: sending, **to content delivery platform software**: **a request to have an *identifier***, being associated with a selected geographic area of interest, **delivered to a computer program on the mobile device *after it has been determined***, by at least use of location information representing at least one physical geographic location of the mobile device, **that the mobile device has at least entered the selected geographic area of interest**," especially when it is interpreted in light of for example Fig. 5 of the application and the corresponding ¶¶ 0050-0056, requires that the request is sent prior to any determination that the mobile device has at least entered the selected geographic area of interest. *Denning Declaration*, ¶ 53. The request sent to the content delivery platform software is for a future delivery of an identifier – i.e., request for an identifier that is to be delivered ***after it has been determined*** that the mobile device has at least entered the selected geographic area of interest. *Denning Declaration*, ¶ 53. As shown for example in Fig. 5 of the present application at step 505, a request is sent to the content delivery platform software, then at least one of steps 507, 513, 515, 517, 519 is performed to determine if the mobile device has at least entered the selected geographic area of interest. *Denning Declaration*, ¶ 53.

In Yoon, advertisement inquiring means 33 inquires out a corresponding advertisement only upon a determination by location comparing means 32 that the user's location is within the advertisement area. ¶¶ 0032-0033 of Yoon. In other words, in Yoon, it is first determined that the mobile device has at least entered the advertisement area, then advertisement inquiring means 33 inquires out a corresponding advertisement for display. *Denning Declaration*, ¶ 54. In contrast,

claim 1 requires instructions for sending a request to the content delivery platform software prior to a determination that the mobile device has at least entered the selected geographic area of interest. *Denning Declaration*, ¶ 54. Thus, even if, for the sake of argument, one would replace the advertisement with an identifier (which the Applicants submit one would not) and it could be assumed that a request is sent (which the Applicants submit it cannot), Yoon could not be considered as disclosing these features of claim 1.

Further, the Applicants respectfully submit that Yoon does not disclose any details of how the advertisement inquiring means 33 inquires out a corresponding advertisement. MPEP 2131 states that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). The only detail disclosed in Yoon for advertisement inquiring means 33 is that "the advertisement inquiring means 33 inquires out at least one corresponding advertisement stored in the advertisement DB 310 (S50)." ¶ 0033 of Yoon. Thus, Yoon does not expressly describe instructions for sending the request to any content delivery platform software as claimed. *Denning Declaration*, ¶ 55.

The Applicants also submit that Yoon does not inherently disclose instructions for sending the request as claimed. *Denning Declaration*, ¶ 55. MPEP 2112 states that "[i]n relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)). The Applicant submits that the prosecution history of Yoon establishes that such a burden could not be met.

Claim 2 of Yoon recited:

The system for providing real time advertisements based on location under navigation's operation according to claim 1,
wherein the advertisement providing server includes:
means for receiving information of an advertisement including advertisement area and period and storing the advertisement into a DB (database), and
means for transmitting the stored advertisement to at least one navigation terminal, and
wherein the navigation terminal includes:
means for storing the advertisement received from the advertisement providing server therein;
means for comparing the user's location with the advertisement area;
; and
means for informing the user of the inquired advertisement. (Emphasis added).

In an Office Action dated December 17, 2010, the USPTO rejected this claim of Yoon as being indefinite "the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed function such that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function." In other words, the claim was rejected because the application did not disclose any algorithms for performing the claimed functions. Because Yoon wholly lacked an algorithm performing the function of "*inquiring out a corresponding advertisement*" Yoon clearly cannot inherently disclose the features of "at least one instruction for: sending, to content delivery platform software: **a request to have an *identifier***, being associated with a selected geographic area of interest, **delivered to a computer program on the mobile device *after it has been determined***, by at least use of location information representing at least one physical geographic location of the mobile device, **that the mobile device has at least entered the selected geographic area of interest**" as claimed.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(a)(1) of independent claim 29 is respectfully requested.

Claim 30

Claim 30 recites "[a] non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor to perform the steps of:

receiving, via content delivery platform software:

a request to have an *alphanumeric identifier*, being associated with a selected geographic area of interest, **delivered to a computer program on the mobile device *after it has been determined***, by at least use of location information representing at least one physical geographic location of the mobile device, **that the mobile device has at least entered the selected geographic area of interest**; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the alphanumeric identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest;

reserving, in at least one memory of the mobile device, the selected geographic area of interest for delivery of the alphanumeric identifier to the computer program;

obtaining location information representing at least one physical geographic location of the mobile device; and

delivering the alphanumeric identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

The Applicants respectfully submit that Yoon does not disclose at least "a "non-transitory computer readable medium causing at least one processor to perform the step[] of: receiving, via content delivery platform software: **a request to have *an alphanumeric identifier***, being associated with a selected geographic area of interest, **delivered to a computer program on the mobile device *after it has been determined***, by at least use of location information representing at least one physical geographic location of the mobile device, **that the mobile device has at least entered the selected geographic area of interest**" as recited in claims 30.

As similarly discussed above with respect to claim 29, Yoon does not mention instructions for receiving a request to have any ***identifier*** or anything remotely analogous to an ***identifier***, and especially not ***an alphanumeric identifier***.

Also, as discussed above with respect to claim 29, the request received in claim 30 by the content delivery platform software is for a future delivery of an identifier – i.e., request for an

identifier that is to be delivered ***after it has been determined*** that the mobile device has at least entered the selected geographic area of interest.

In Yoon, advertisement inquiring means 33 inquires out a corresponding advertisement only upon a determination by location comparing means 32 that the user's location is within the advertisement area. ¶¶ 0032-0033 of Yoon. In other words, in Yoon, it is first determined that the mobile device has at least entered the advertisement area, then advertisement inquiring means 33 inquires out a corresponding advertisement for display. In contrast, claim 30 requires instructions for receiving a request to the content delivery platform software prior to a determination that the mobile device has at least entered the selected geographic area of interest. Thus, even if, for the sake of argument, one would replace the advertisement with an identifier (which the Applicants submit one would not) and it could be assumed that a request is received (which the Applicants submit it cannot), Yoon could not be considered as disclosing these features of claim 30.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(a)(1) of independent claim 30 is respectfully requested.

III. Rejections under pre-AIA 35 U.S.C. § 103(a)

The Office has rejected claims 13-14, 17-19, and 24-26 as being obvious under pre-AIA 35 U.S.C. § 103(a).

In view of the above arguments with respect to independent claim 10, and because the additional references do not cure the above-mentioned deficiencies of Yoon, withdrawal of the rejections under 35 U.S.C. 103(a) of these dependent claims 13-14, 17-19, and 24-26 is respectfully requested.

CONCLUSION

The Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for reasons clearly apparent, the Applicants respectfully request full allowance of all pending claims. If there are any matters that can be discussed by telephone to further the prosecution of this case, the Applicants invite the Examiner to contact the undersigned at 212-736-2663 at the Examiner's convenience.

If any fees are due in connection with this submission, please charge our Deposit Account No. 50-0552.

Respectfully submitted,

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By: /Clint R. Mehall/

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Home Depot - Exhibit 1026 - Page 498

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Ryan Hardin
Examiner: Ajibade Akonai, Olumide
Application No.: 17/863,208
Group Art Unit: 3648
Filing Date: 12 July 2022
Docket No.: 971600.1001
Title: EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.132

I, Scott Denning, being duly sworn, depose and say:

I. INTRODUCTION

1. I am making this Declaration at the request of Applicants Ryan Hardin and Andrew Hill in the matter of U.S. Patent Application No.: 17/863,208 (the "present application"), which I understand has an effective filing date of May 1, 2009, based on priority application U.S. Patent Application No.: 12/434,094 (the "priority application"). The present application has the exact same specification and drawings as the priority application, with the exception that the first paragraph of the present application includes priority information. All citations herein refer to the specification of the present application. I also made some of the below statements at the request of Patent Owners Ryan Hardin and Andrew Hill in *inter partes* reviews IPR2022-01327; IPR2022-01328; IPR2022-01329 challenging U.S. Patent No. 10,049,387 from which the present application claims priority and which also claims priority of the priority application. I also made declarations, similar to those in *inter partes* reviews IPR2022-01327; IPR2022-01328; IPR2022-01329, in *inter partes* reviews IPR2022-01330; IPR2022-01331; IPR2022-013332 challenging U.S. Patent No. 9,779, 418 and *inter partes* reviews IPR2022-01333; IPR2022-01334; IPR2022-013335 challenging U.S. Patent No. 10,984,447.

2. In preparing this Declaration and forming the opinions expressed herein, I have considered the claims, specification and drawings of the present application and all materials

cited and discussed in this Declaration. As part of my analysis for this Declaration, I have considered my own knowledge and experience, including my work and experience in mobile or location-based computing as described below.

II. QUALIFICATIONS AND COMPENSATION

3. I am currently employed as an independent computer expert and consultant. My background and qualifications are set forth in my curriculum vitae, which is submitted herewith.

4. As set forth in my curriculum vitae, I have a Bachelor of Science in Computer Science and have completed all requirements for a Ph.D. in Computer Science except to defend my dissertation, which I expect to do soon. I have over twenty-seven years of professional experience in the areas of hardware design and software engineering, robotic controls, digital video equipment design, global positioning system research and development, and computer networking, security and software.

5. During that time, I have worked as a consultant, as an expert, as an engineer, as a software developer, as a manager, as a company executive, and as a forensic investigator. Specific computer-related technologies that I have worked with include compilers, programming languages, operating systems, networks, network devices such as routers and switches, internet protocols, videoconferencing systems, computer hardware, and source code. In addition, my working experience includes developing software for, among other things, network data communications, business applications, data management, database design, client/server, compilers, parsers, programming languages, user interfaces, real-time applications, artificial intelligence, utility programs, diagnostics, machine simulators, performance analyzers, EDI applications, inventory control, software auditing, robotic controls, video and audio streaming, and embedded systems. I have designed and developed, as well as managed and assisted in the design and development of, computer hardware and software systems. Some of my clients have been computer software companies, including IBM, Google, and Apple.

6. I have extensive engineering experience with the technologies disclosed in the specification and claims of the present application including: content delivery platforms, mobile device software development, perimeters defining geographic locations, and mobile device location determination.

7. For example, from 1999 to 2002 while I was employed by Navsys Corp, I was principal engineer for the LocatorNET program. I designed and supported handheld and vehicle mounted

personal emergency locators and a network of servers that determined the location of the devices and managed the dispatch of help to the users of the devices. This system utilized raw satellite data recorded by the mobile devices and sent to the servers for a determination of the device's location. Additionally, this system included a home location register (HLR), a visitor location register (VLR), and other predefined geographic perimeters to aid in the rapid determination of a user's location.

8. Further, I assumed development of a GPS phone product line from the team at Navsys that designed the first GPS cellphone (Mayday), which is now on display in the Smithsonian Institute. I also designed vehicle and asset tracking systems for rental cars, shipping containers, and fleet vehicles. One example of such was for Coca Cola service trucks for servicing soda fountains in restaurants and convenience stores. The trucks were dispatched to stores needing service from a central location. The dispatch algorithm was optimized to dispatch the closest service truck with the shortest queue while limiting them to geometric areas defined throughout the service areas. Realtime updates of the vehicle's status and location were provided to the dispatch center.

9. I also was the principal engineer on the Spotter Sensor, a system designed for military forward observers that determined the exact location of objects viewed within the view finder. This system utilized a military grade GPS receiver, Leica laser rangefinder binoculars and a fiber optic gyroscope to determine location. Once the location was determined it was automatically transmitted to a munitions firing center.

10. For each of the above systems I assembled the prototype units including packaging and connections, wrote firmware for the sensors, designed the communications protocols between the devices and the servers they communicated with, and wrote much of the server applications software.

11. My curriculum vitae includes a list of publications I have authored in the past ten years, and a list of cases in which I have testified as an expert in deposition or trial in the past four years.

12. I am being compensated in this matter at my standard consulting hourly rate of $650 per hour. My compensation is not dependent on the substance of my statements in this Declaration.

13. I am over the age of 18 and am competent to write this Declaration. I have personal knowledge, or have developed knowledge, of the technologies discussed in this Declaration based upon my education, training, or experience with the matters discussed herein.

III. THE REJECTION OF CLAIMS 6 and 15 UNDER 35 U.S.C. 112(a)

14. I understand that a patent application can be entitled to claim priority to an earlier filed application. To do so, I further understand that the earlier-filed application must properly enable and support by the written description the claimed inventions in the later-filed patent application. I also understand that the later-filed patent application is afforded a filing date of the earlier-filed application provided it meets these requirements.

15. I understand that a priority application needs to provide sufficient written description support for the claimed invention. I further understand that the test for sufficiency of support in an application is not the presence or absence of literal support in the specification for the claim language, but instead, it is whether the disclosure of the application relied upon reasonably conveys to a person of ordinary skill in the art ("POSITA") that the inventor had possession of the later claimed subject matter.

16. I understand that the disclosure must be viewed from the perspective of a POSITA and, as such, the disclosure does not need to restate the claims verbatim. I further understand that there is no requirement for an applicant to repeat what is readily known in the art. Instead, the applicant must adequately describe improvements to the art.

17. Counsel for Applicants has informed me that a POSITA is a hypothetical person who is presumed to have known all of the relevant art at the time of the invention. In my opinion, the relevant field of art for the present application is that of mobile or location-based computing.

18. For the purpose of this Declaration, and based on my opinions herein, the time of invention for the present application is May 2009. However, I understand that the conception dates of any inventions contained therein may have been earlier than that date. Any earlier conception date does not alter my opinion regarding a person of ordinary skill in the art. My opinions likewise would not change if the priority date for the present application was determined to be later than May 2009.

19. I have been informed by counsel for Applicants that the person of ordinary skill is generally familiar with the type of problems encountered in the field and the prior art solutions to those problems and possesses an ordinary level of creativity.

20. For purposes of this Declaration, a POSITA would have had at least a bachelor's degree in computer science or a comparable field of study and at least five years of professional experience in mobile or location-based computing or other relevant academic experience. As detailed above, I was at least a person of ordinary skill as of May 2009, and believe I can offer opinions from the perspective of a POSITA in that time frame.

A. CLAIM 6

21. I have been made aware that the USPTO has issued an Office Action dated November 7, 2022 that states that "the specification does not provide sufficient details such that one of ordinary skill in the art would understand how content delivery platform software delivers a boundary identifier to the computer program on the mobile device." Office Action, pages 2-3. The Office Action then identifies paragraphs [0045]-[0046] of the application and states that "in the specification, the boundary identifier(s) is provided by the sponsor(s) to the content delivery platform software, and not from the content delivery platform software to the computer program on the mobile device as the claim seems to suggest." Office Action, page 3. The Office Action then concludes: "Thus, for the reasons explained above, the disclosure does not provide adequate support for the limitation "wherein the identifier delivered by the content delivery platform software is a boundary identifier" as recited in the claim." Office Action, page 4.

22. I respectfully disagree. The Office Action fails to consider the full specification, as well as fails to consider the knowledge and skill a POSITA would bring to bear when reviewing the specification.

23. A POSITA at the time of the present invention would understand from reading the entire application that the identifier delivered by the content delivery platform software is a boundary identifier in some disclosed examples.

24. The application discloses at ¶ 0050 that content can be delivered by a content delivery platform to a computer program on a mobile device, and that content includes identifiers in the formed of "alphanumeric identifiers" and "other content suitable for delivery to mobile devices via registered applications." ¶ 0050 ("This content can include advertisements, still image content, animated content, video content, audio content, alphanumeric identifiers, or other content suitable for delivery to mobile devices via registered applications. As illustrated by block 417, the content received from the sponsor can be stored for later delivery to registered applications running on mobile devices having target locations that exist within the sponsor's

reserved area.") This discloses to a POSITA that the content delivery platform software may deliver to registered application programs suitable "content" including "identifiers."

25. A POSITA would also understand that the application discloses that boundary identifiers are content suitable for delivery to mobile devices via registered applications. In particular, ¶ 0046 discloses that boundary identifiers can be used to establish a geographic area to be reserved by a sponsor. ¶ 0046 ("a combination of coordinates and geometric constructs can be used in conjunction with other suitable boundary identifiers to establish an area that may be reserved specifically for content related to a particular advertiser or sponsor").

26. Further related to these geographic areas, the application discloses that the content delivery platform can "present sponsors a choice from among previously established options." ¶ 0047. Next, ¶ 0049 discloses that "the sponsor can be notified that an interest in the geographic area has been reserved for him." In both instances, a POSITA would understand from these disclosures that information regarding the geographic area, including a boundary identifier, would be sent from the content delivery platform software to the sponsor.

27. A POSITA would also understand from the application that the "sponsors" can be represented by their application programs, such that the application programs may receive the boundary identifiers from the content delivery platform software. In particular, the application at ¶ 0020 discloses that the "application programs" on the mobile devices may come from multiple sources, including the sponsors. This paragraph teaches that "a registered application program is provided to mobile devices by developer platform 108, content delivery platform 112, one of sponsor A 121, sponsor C 123, or sponsor B 125, or by another desired delivery mechanism" (emphasis added). A POSITA would have understood from ¶ 0020 of the application that the registered application programs on the mobile device may come from multiple different sources, including developers via the developer platform, content providers via the content delivery platform, and/or one or more sponsors.

28. A POSITA would have also understood from ¶ 0019 of the application that the specification's disclosures teach that the sponsors may be represented by their application programs, and as such are able to control the functionality of the application programs. For example, ¶ 0019 states that the inventive system includes "systems or individuals operating under control of sponsor A 121, sponsor C 123, and sponsor B 125." This is consistent with other portions of the specification teaching that the entire invention may be implemented in a

combination of hardware and/or software. *Id.* at ¶¶ 0064, 0067, 0068. A "system" may be implemented in software, such as an application program. See Microsoft Computer Dictionary, submitted herewith.

29. Accordingly, the specification sufficiently discloses to a POSITA that an application program located on the mobile device may be under control of the "sponsor," and therefore the specification's references to the "sponsor" in some embodiments encompasses the application programs originating from a sponsor. This in turn informs a POSITA that an application program, acting on behalf of its sponsor, may request to reserve a geographic area of interest, and receive from the content delivery platform software information regarding the geographic area, including boundary identifiers.

30. In this regard, and as explained above, a POSITA is informed from at least ¶¶ 0020, 0045 to 0050 that in some examples (1) the content deliverable by the content delivery platform software is "content suitable for delivery to mobile devices via registered applications" (¶ 0050), and (2) information regarding defined geographic areas are suitable for delivery to the registered application programs.

31. From these disclosures, a POSITA would understand that geographic areas delivered to registered application can be boundary identifiers, and boundary identifiers are deliverable as content to a computer program on a mobile device because boundary identifiers are content suitable for delivery to mobile devices via registered applications. In other words, from at least ¶¶ 0020, 0045 to 0050 the application discloses that the content delivery platform software can deliver boundary identifiers defining geographic areas to registered applications representing sponsors, and thus these boundary identifiers are one of the possible forms of content deliverable by the content delivery platform software to a computer program on a mobile device.

32. Thus, a POSITA would understand that at least ¶¶ 0020, 0045 to 0050 disclose that identifiers, including boundary identifiers, are deliverable by content delivery platform software to a computer program on a mobile device recited in claim 6.

B. CLAIM 15

33. I have also been made aware that the Office Action states that the specification is "devoid of any indication of any content delivery platform software that resides in the mobile device. Instead, the applicant specification only discloses a computer program in the mobile device." Office Action, page 4, citing ¶¶ 0019-0020 of the present application. The Office Action states

that "[a]ny content delivery platform software will most likely be on the content delivery platform 112, which, based on the applicant's disclosure and drawings, is separate from the mobile device." The Office Action then concludes: "Therefore, the claimed limitation [] is not taught, suggested, or made obvious by the applicant's specification and thus constitutes new matter." Office Action, page 4.

34. I respectfully disagree. The Office Action fails to consider all of the details provided within the specification. It also does not consider the knowledge and skill a POSITA possesses and would rely upon when reading the specification.

35. A POSITA would have recognized that the specification supports a mobile device executing software instructions that implement the content delivery platform.

36. First, paragraph [0064] of the application states:

> [0064] The methods and processes discussed previously, as well as other embodiments, may be implemented in a processing system executing a set of instructions stored in memory, or on a removable computer readable medium. An example of a system according to some embodiments is illustrated in FIG. 7.

37. This paragraph follows the description of the processes in Figs. 1 to 6, and thus discloses that the methods and processes, which include the processes shown in Figs. 1 to 6, can be performed on a single processing system. It should be noted that paragraph [0064] does not state that the processing system can implement only certain aspects of the methods and processes discussed previously; it states the processing system can implement the methods and processes discussed previously. In other words, a single computer – i.e., a processing system, which can be the processing system of Fig. 7, can implement the processes shown in Figs. 1 to 6. Processes of the content delivery platform are described with respect to Figs. 1 to 6.

38. A POSITA would also have recognized that the specification supports that the processing system is in at least some embodiments a mobile device. The description of "mobile device" in paragraph [0022] of the application shows that a number of different types of computers, including desktop computers, laptop computers and mobile phones are "mobile devices" within the scope of the present application. Paragraph [0022] discloses:

> … various computing devices, including portable computer 179 , which may include laptop computers, desktop computers, palmtop computers, tablet computers, digital video recorders (DVRs), television set-top boxes, or any of various general or dedicated purpose computers that can be carried or transported; wireless device 177 , which can include personal digital assistants (PDAs),

> cellular telephones, personal communication system (PCS) devices, music players, video players, gaming consoles, or portable televisions; or any of various devices that may be included in, or carried by, motor vehicles 171 , 173 , or 175 , including navigation systems, satellite radios, or the like. It should be noted that the term ***"mobile device" can include all computing devices as listed above*** that can communicate with content delivery platform 112 , that the above listing of devices is not exhaustive, and that a device that qualifies as one type of device may also be considered to be of another type. For example, ***a mobile phone may also be a general purpose computing device***, a radio, a television, and a navigation system.

Paragraph [0022] (emphasis added).

39. A POSITA would understand that processing system of Fig. 7 is such a computer, and thus a mobile device falls within the meaning of such a processing system provided by the specification.

40. To further bolster the above, the present application also discloses how a mobile device includes software instructions for implementing all of the processes of Fig. 1 to 6 of the present application, including the processes of the content delivery platform. For example, the specification discloses in several places that the invention can be implemented in software on the mobile device, including for example the following portions of the specification:

> Various embodiments can be implemented as a system that includes memory, a communications interface, and a processor that cooperate to store and execute a program of instructions implementing various methods and techniques described herein. Furthermore, some embodiments can be implemented on a computer readable medium tangibly embodying a program of instructions.

Paragraph [0010].

> The methods and processes discussed previously, as well as other embodiments, may be implemented in a processing system executing a set of instructions stored in memory…

Paragraph [0064].

> Various disclosed embodiments can be implemented in hardware, software, or a combination containing both hardware and software elements. In one or more embodiments, ***the invention is implemented in software, which includes but is not limited to firmware, resident software, microcode, etc***. Some embodiments may be realized as a computer program product, and may be implemented as a computer- usable or computer-readable medium embodying program code for use

> by, or in connection with, a computer, a processor, or other suitable instruction execution system.

Paragraph [0067] (emphasis added).

41. Based on the above disclosures, a POSITA would have understood from the specification that the invention was described to be implemented through software run or stored on a mobile device. This includes having software instructions for implementing the content delivery platform on the mobile device.

42. A POSITA would have also understood that the term "platform" includes implementation through software on a mobile device. See, e.g., Newton's Telecom Dictionary, 20th ed. (2004), definition for "platform," submitted herewith. ("Platform is a loosely-defined word for a software operating system and/or open hardware, which an outsider could write software for. Windows98 is a platform. So is Windows 2000. If every phone system were a platform, then every owner of that phone system could write software for his phone system or buy outside-produced software and have his phone system work more to his liking. That's the objective of creating a platform. See also OAI and Platform Independence."). Other contemporaneous definitions likewise support this understanding. (Microsoft Computer Dictionary, submitted herewith). Based on the plain meaning of the term, a POSITA would have understood that the content delivery platform includes software that would have been able to be implemented, whole or in part, on the mobile device.

43. Further, the specification refers to the "content delivery platform" interchangeably as a "content delivery ***server***":

> [T]he mobile device can forward information associated with the target location to the content delivery platform, or ***the content delivery server*** can obtain location information from a third party application or device, from a home location register, from a visiting location register, from raw, differential, processed or semi-processed GPS data, from power signals used in code-division multiple access or other wireless communications systems or otherwise.

Paragraph [0059] (emphasis added).

A POSITA would understand this to mean that the platform can relate to the application program in a server-client relationship.

44. Such a server-client relationship was well known at the effective filing date of the present application. Well before 2009, it was also commonly known to a POSITA that a client-server relationship was capable of existing and functioning locally on a mobile device. The disclosures below demonstrate as much.

45. For example, the paper "Client-Server Computing in Mobile Environments" Jin Jing et al. ("Jing") was published in 1999 in the ACM Computing Surveys journal. Jing teaches that in mobile environments, the distinction between clients and servers may be "temporarily blurred," for example, whereby "clients [] sometimes emulate the functions of a server." *Id.* at .012-013. Jing discloses that a "full client architecture can be used" and that the "full client architecture supports the emulation of functions of servers at the client host…" *Id.* at .014; see also *id.* at .013, Fig. 8 (showing an "extended client-server model" where a mobile device contains both client code and server code):

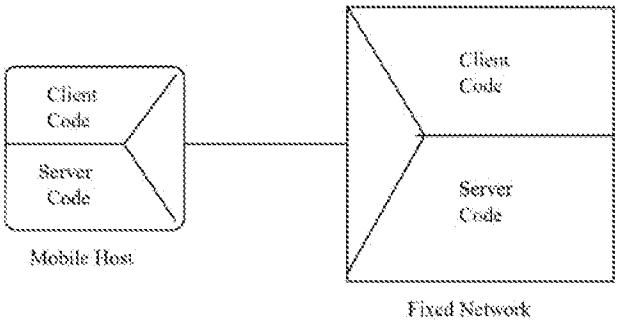


Figure 8. Extended client-server model.

Accordingly, Jing shows that it was well-known to a POSITA years prior to 2009 that a client-server relationship may be implemented on a mobile device locally.

46. U.S. Pub. No. 2009/0043657 was published February 12, 2009 and is titled System and Methods for Selecting Advertisements Based on Caller Identifier Information ("Swift"). Swift describes another example of a mobile device implementing a client-server relationship. Swift is directed to implementing web advertisements on a mobile device. *Id.*, Abstract. In describing one way to do so, Swift discloses that mobile devices may let web applications run locally by "maintaining a client-server programming model":

> [I]t is possible to let web applications run locally on the computing device 202 (e.g., mobile device or desktop computer) without outside server dependencies to be able to access local services and maintain a client-server programming model based on web programming techniques and with web security models intact.

Id., ¶ 0081. This is another example demonstrating that by May 2009 it was known to a POSITA that a client-server relationship may be implemented locally on a mobile device.

47. Similarly, the 2001 textbook *Modern Operating Systems*, 2d Ed. by A. Tanenbaum at page 62, discloses a "client-server model" whereby "*a client communicates with a server* by sending it messages, [and] the client need not know whether the message is handled *locally in its own machine*, or whether it was sent across a network to a server on a remote machine. As far as the client is concerned, the same thing happens in both cases: a request was sent and a reply came back" (emphasis added).

48. Based on the above disclosures, it was well-known to a skilled artisan that a mobile device may implement a client-server relationship in the mobile device by May 2009.

49. These prior art disclosures thus provide additional examples demonstrating that by the priority date of the Instant Application, it was known to a POSITA that a client-server relationship may be implemented locally on a mobile device. Combined with the teachings of the application that (1) the content delivery platform may be implemented in software; (2) the processes disclosed in the application may be implemented in software on a computing device; and (3) a mobile device may be a computing device within the meaning of the application, leads to the conclusion that a POSITA would have understood the disclosures in the May 1, 2009 application disclosed that the inventors were in possession of an invention whereby content delivery platform software would be included on a mobile device.

THE REJECTION OF THE CLAIMS UNDER 35 U.S.C. 102

50. I have also been made aware that the Office Action states that Claims 1-5, 9-12, 16, 20, 22, 23, and 27-30 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Yoon et al US 20080270235 (hereinafter Yoon). Counsel for Applicants has explained to me that this means the USPTO is asserting that Yoon discloses each and every feature of the claims, either expressly or inherently. Counsel for Applicants has also explained to me that in order for Yoon to inherently disclose a feature of the claims, there must be a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of Yoon.

A. INDEPENDENT CLAIMS 1 AND 29

51. I am addressing claim 29 herein; however, as independent claim 1 includes similar language as claim 29, the below remarks with respect to Yoon also apply to independent claim 1. I have reviewed Yoon in detail and Yoon does not disclose, expressly or inherently, a "non-transitory computer readable medium causing at least one processor to perform the step[] of: sending, to content delivery platform software: a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest" as recited in claim 29.

52. First, a POSITA understands that Yoon does not disclose instructions for sending a request to have an identifier or anything remotely analogous to an identifier. Yoon merely relates to a system for providing advertisements that receives a location-based advertisement from an advertiser. In the context of the present application, an advertisement is not an identifier. This is clear from ¶ 0050 of the present application which lists advertisements and identifiers as being different content. Thus, Yoon does not disclose "at least one instruction for: sending, to content delivery platform software: a request to have an identifier . . ." as claimed.

53. Second, a POSITA understands that the claim language "code configured for execution by the at least one processor, wherein the code comprises at least one instruction for: sending, to content delivery platform software: a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest," especially when it is interpreted in light of for example Fig. 5 of the application and the corresponding ¶¶ 0050-0056, requires that the request is sent prior to any determination that the mobile device has at least entered the selected geographic area of interest. The request sent to the content delivery platform software is for a future delivery of an identifier – i.e., request for an identifier that is to be delivered after it has been determined that the mobile device has at least entered the selected geographic area of interest. As shown for example in Fig. 5 of the present application at step 505, a request is sent to the content delivery platform software, then at least one of steps 507, 513, 515, 517, 519 is performed to determine if the mobile device has at least entered the selected geographic area of interest.

54. In Yoon, "advertisement inquiring means 33 inquires out a corresponding advertisement" only upon a determination by location comparing means 32 that the user's location is within the advertisement area. ¶¶ 0032-0033 of Yoon. In other words, in Yoon, it is first determined that the mobile device has at least entered the advertisement area, then advertisement inquiring means 33 inquires out a corresponding advertisement for display. In contrast, claim 29 requires instructions for sending a request to the content delivery platform software prior to a determination that the mobile device has at least entered the selected geographic area of interest.

55. Yoon does not provide a coherent description or a set of operations that are performed by inquiring means 33. The phrase "inquiring out the corresponding advertisement" is ambiguous at best and does not inherently disclose instructions for sending the request to any content delivery platform software as claimed.

B. INDEPENDENT CLAIMS 10 AND 30

56. Further, independent claims 10 and 30 recite "code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:" or a "on-transitory computer readable medium causing at least one processor to perform the step[] of: receiving, via content delivery platform software: **a request to have an identifier**, being associated with a selected geographic area of interest, **delivered to a computer program on the mobile device *after it has been determined***, by at least use of location information representing at least one physical geographic location of the mobile device, **that the mobile device has at least entered the selected geographic area of interest**" as recited in claims 10 and 30.

57. As similarly discussed above with respect to claims 1 and 29, Yoon does not mention instructions for receiving a request to have any ***identifier*** or anything remotely analogous to an ***identifier***.

58. Also, as discussed above with respect to claims 1 and 29, the request sent in claims 10 and 30 to the content delivery platform software is for a future delivery of an identifier – i.e., request for an identifier that is to be delivered ***after it has been determined*** that the mobile device has at least entered the selected geographic area of interest.

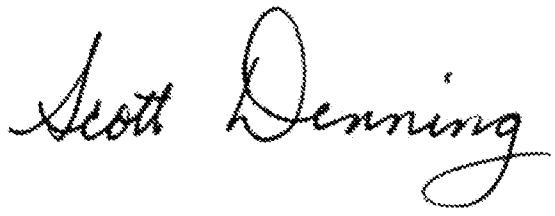
C. DEPENDENT CLAIM 22

59. Additionally, Yoon clearly does not expressly or inherently disclose all of the features of claim 22. In particular, there is absolutely no indication that Yoon discloses the features of claim 22 because Yoon especially does not disclose "the code further comprising at least one

instruction for: receiving, via the content delivery platform software: a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to a second computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest" as recited in claim 22. The Office Action cites all the paragraphs of Yoon that were used to reject claim 10 to reject claim 22, but does not point to where these paragraphs teach requests are received to have anything delivered to two different computer programs on the same mobile device, and I do not find any portions of these cited paragraphs of Yoon remotely providing such a disclosure.

60. In contrast, paragraphs [0029], [0039], [0051] and [0054] for example of the present specification disclose that two different computer programs, in the form of registered applications, can be executed on the same mobile device, and thus requests for content such as identifiers can be received by the content delivery platform software for delivery to two different computer programs running on the same mobile device. Yoon does not provide any remotely analogous disclosure.

61. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like made are punishable by fine or imprisonment, or both, under 18 USC §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



Scott Denning February 7, 2023

US 20090043657A1

(19) **United States**

(12) **Patent Application Publication**

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(54) **SYSTEM AND METHODS FOR SELECTING ADVERTISEMENTS BASED ON CALLER IDENTIFIER INFORMATION**

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(21) Appl. No.: **12/186,303**

(22) Filed: **Aug. 5, 2008**

Related U.S. Application Data

(60) Provisional application No. 60/954,022, filed on Aug. 6, 2007.

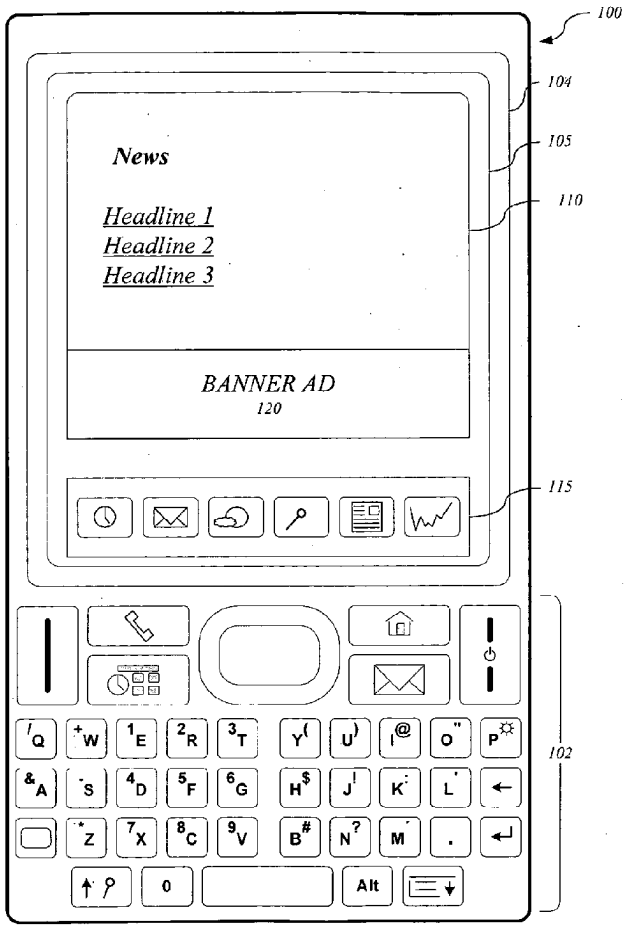
Publication Classification

(51) **Int. Cl.**
G06Q 30/00 (2006.01)

(52) **U.S. Cl.** **705/14**

(57) **ABSTRACT**

Various embodiments are directed to selecting a web advertisement based on caller identifier information. The caller identifier information may be obtained from an incoming call to the mobile device or from an outgoing call from the mobile device. An ad request may be generated based on the caller identifier information by the mobile device and sent to a web advertising server. In response to the ad request, the web advertising server may select a relevant web advertisement based on the caller identifier information and may send the relevant web advertisement to the mobile device. On the mobile device, the web advertisement may be inserted into a web application for display in a user interface.



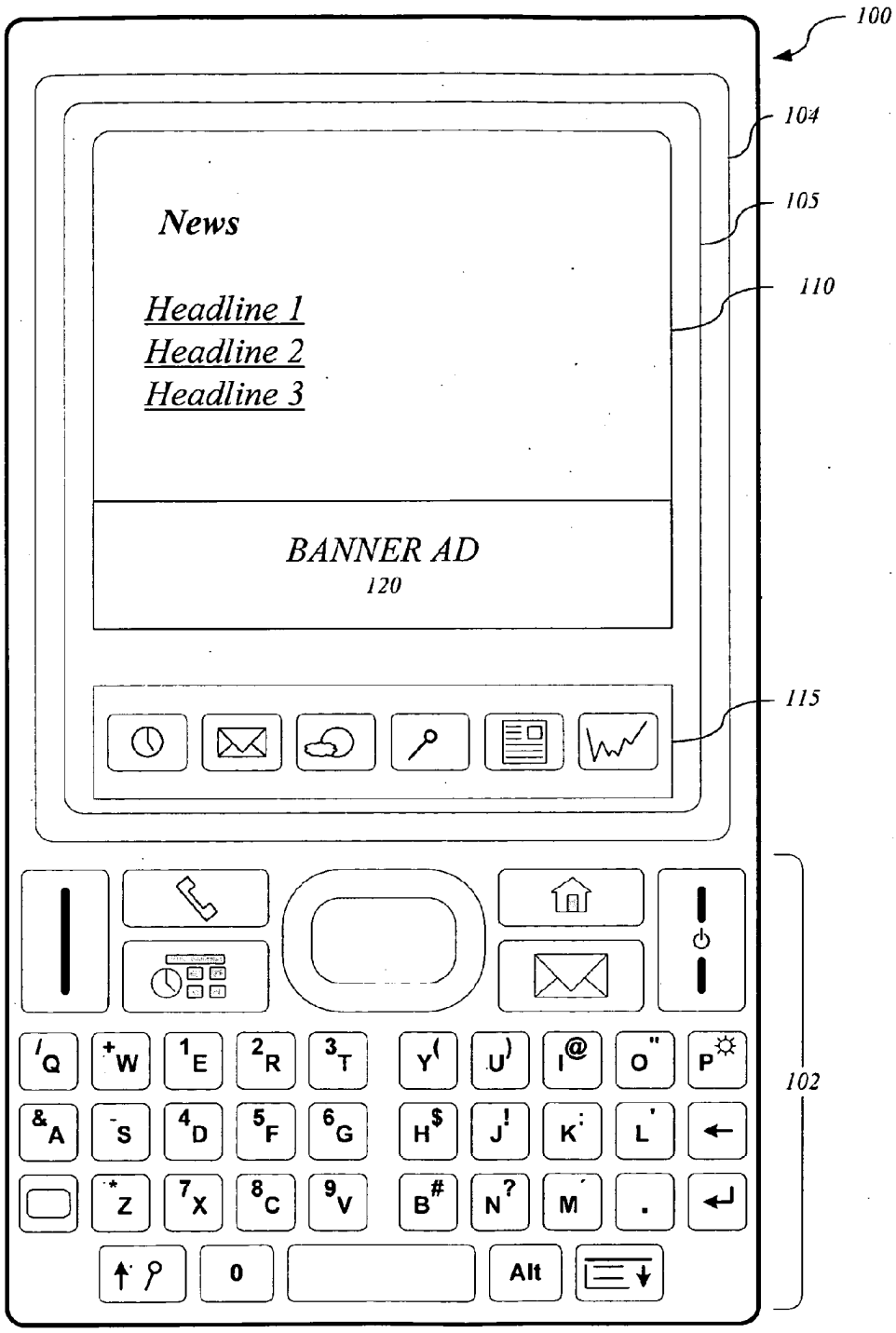

100
104
105
110
News
Headline 1
Headline 2
Headline 3
BANNER AD
120
115
102

FIG. 1

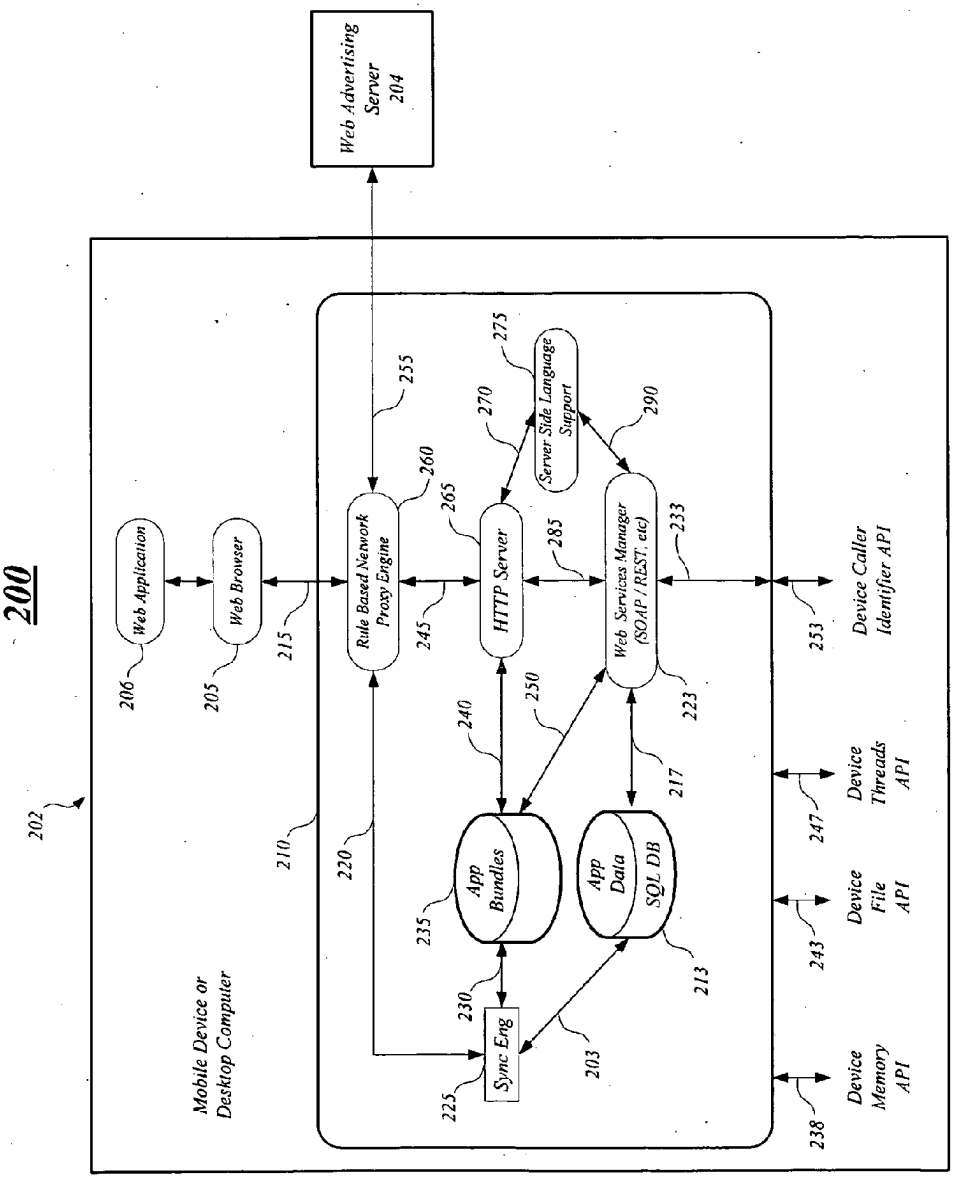

200
202
Web Advertising Server 204
Mobile Device or Desktop Computer
Web Application
206
Web Browser
205
215
Rule Based Network Proxy Engine
260
245
HTTP Server
265
285
Server Side Language Support
275
270
290
Web Services Manager (SOAP / REST, etc)
233
223
255
253
Device Caller Identifier API
210
220
240
250
217
App Bundles
235
App Data SQL DB
213
230
Sync Eng
225
203
247
Device Threads API
243
Device File API
238
Device Memory API

FIG. 2

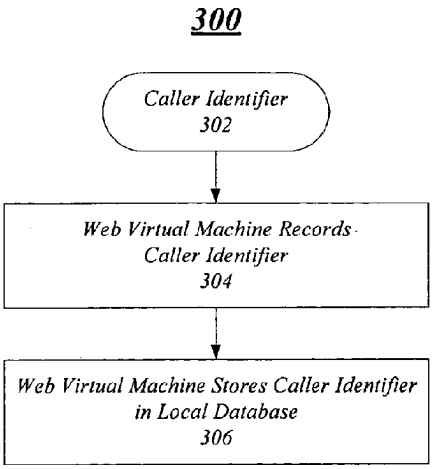

300
Caller Identifier
302
Web Virtual Machine Records Caller Identifier
304
Web Virtual Machine Stores Caller Identifier in Local Database
306

FIG. 3

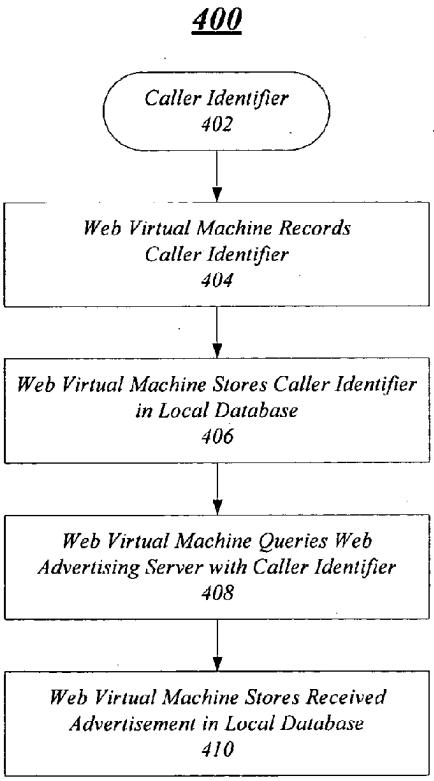

400
Caller Identifier
402
Web Virtual Machine Records Caller Identifier
404
Web Virtual Machine Stores Caller Identifier in Local Database
406
Web Virtual Machine Queries Web Advertising Server with Caller Identifier
408
Web Virtual Machine Stores Received Advertisement in Local Database
410

FIG. 4

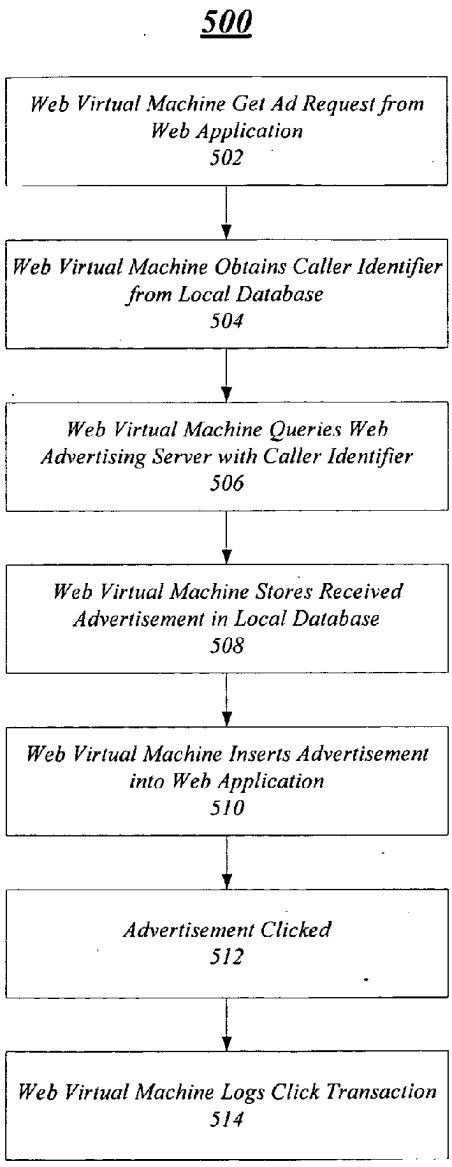

500
Web Virtual Machine Get Ad Request from Web Application
502
Web Virtual Machine Obtains Caller Identifier from Local Database
504
Web Virtual Machine Queries Web Advertising Server with Caller Identifier
506
Web Virtual Machine Stores Received Advertisement in Local Database
508
Web Virtual Machine Inserts Advertisement into Web Application
510
Advertisement Clicked
512
Web Virtual Machine Logs Click Transaction
514

FIG. 5

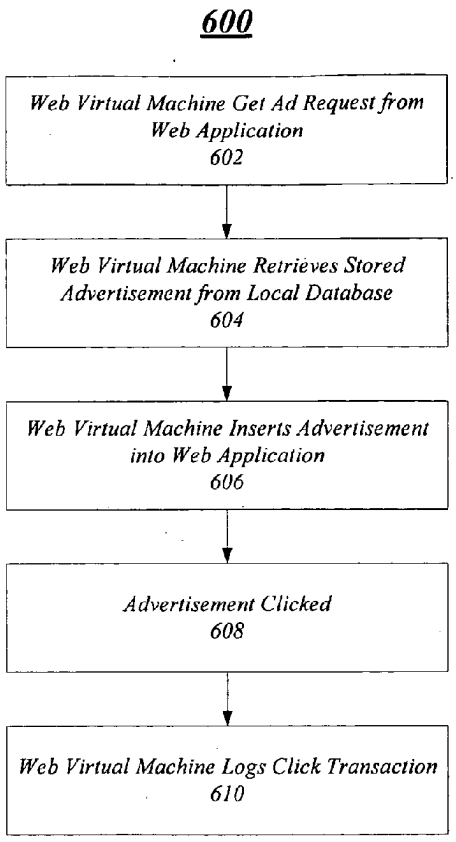

600
Web Virtual Machine Get Ad Request from Web Application
602
Web Virtual Machine Retrieves Stored Advertisement from Local Database
604
Web Virtual Machine Inserts Advertisement into Web Application
606
Advertisement Clicked
608
Web Virtual Machine Logs Click Transaction
610

FIG. 6

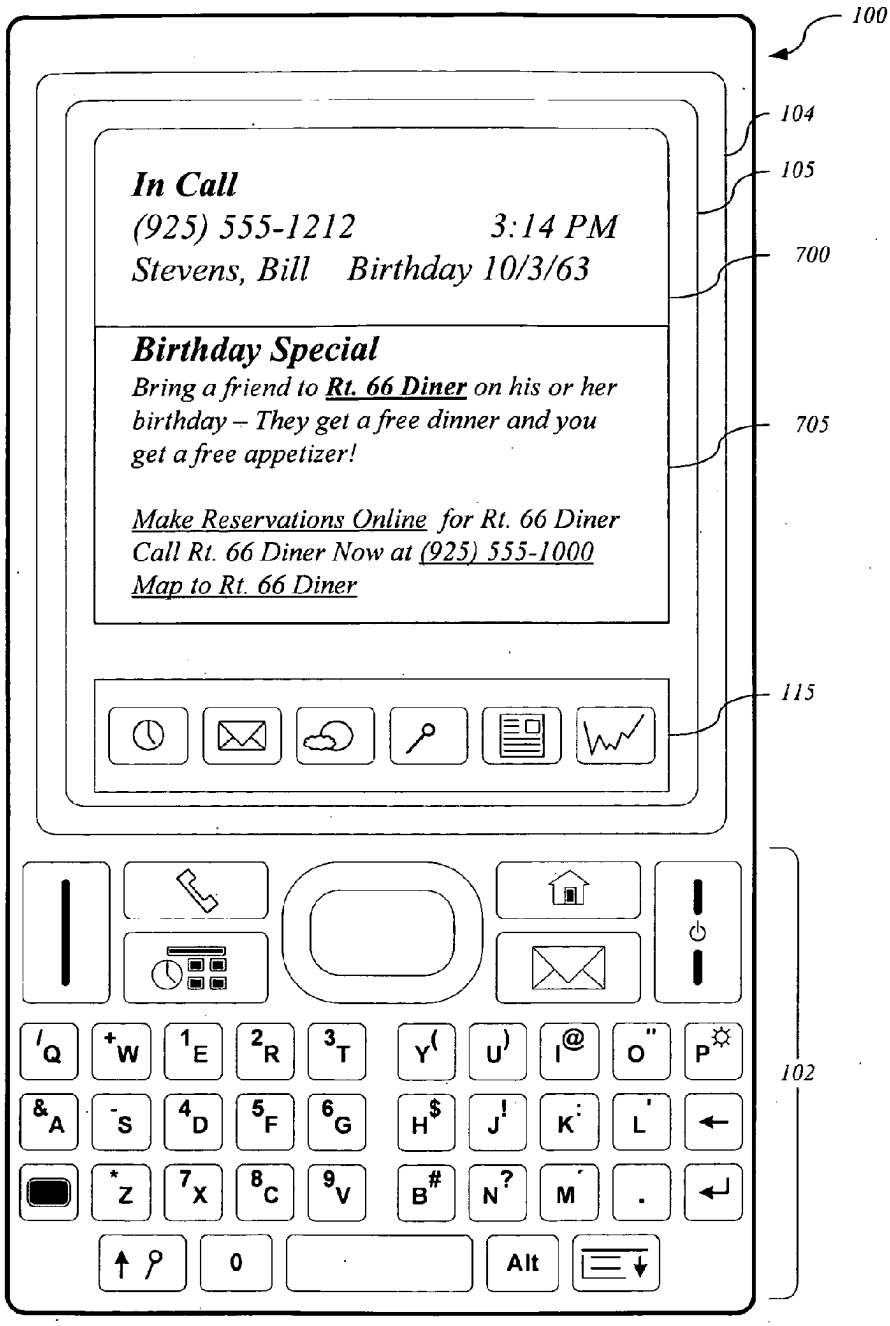

100
104
105
700
705
115
102
In Call
(925) 555-1212 3:14 PM
Stevens, Bill Birthday 10/3/63
Birthday Special
Bring a friend to Rt. 66 Diner on his or her birthday – They get a free dinner and you get a free appetizer!
Make Reservations Online for Rt. 66 Diner
Call Rt. 66 Diner Now at (925) 555-1000
Map to Rt. 66 Diner
Alt

FIG. 7

SYSTEM AND METHODS FOR SELECTING ADVERTISEMENTS BASED ON CALLER IDENTIFIER INFORMATION

RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Patent Application Ser. No. 60/954,022, which was filed on Aug. 6, 2007. This application is also related and claims priority to U.S. patent application Ser. No. 11/382,058 titled "Method for Synchronizing Software Application and User Data for Asynchronous Client-Server and Peer to Peer Computer Networks," which was filed on May 8, 2006; U.S. patent application Ser. No. 11/612,282 titled "System for Running Web Applications Offline and Providing Access to Native Services," which was filed on Dec. 18, 2006; U.S. patent application Ser. No. 11/873,305 titled "Offline Automated Proxy Cache for Web Applications," which was filed on Oct. 16, 2007; U.S. patent application Ser. No. 12/019,362 titled "System and Methods for Providing Granular Security for Locally Running Scripted Environments and Web Applications," which was filed on Jan. 4, 2008; U.S. patent application Ser. No. 12/061,179 titled "System and Methods for Providing Access to a Desktop and Applications of a Mobile Device," which was filed on Apr. 2, 2008; U.S. patent application Ser. No. 12/116,697 titled "Automatic Conversion Schema for Cached Web Requests," which was filed on May 7, 2008; and U.S. patent application Ser. No. 12/181,776 titled "Application Management Framework for Web Applications," which was filed on Jul. 29, 2008. These applications are entirely incorporated by reference.

BACKGROUND

[0002] Web browsers have become highly capable software packages in recent years. In addition to rendering web pages, many web browsers also support the ability to run more complex web applications in the web browser. Such web applications may be implemented using various web technologies such as HTML, XHTML, XML, and Asynchronous JavaScript and XML(Ajax).

[0003] Although a web application has many advantages, it suffers in a number of areas. For instance, because the web application depends on the web browser, the web browser must start before the web application can run. This delay may be unappealing to the end user, especially if the device running the web application has limited processing capability, as is the case for many mobile devices. In addition, if the web browser is not running, the web application is not running either. Therefore, the web application is unable to update its data. Furthermore, if the user wishes to run several web applications at the same time, the user must explicitly start each application. Also, there is no simple way for multiple web applications to have a shared set of user input controls.

[0004] Web-based advertising has become common practice, whereby advertisements are inserted into web pages based on a variety of criteria. While some web-based advertising systems display advertisements relevant to a user's query on an Internet-enabled mobile device, these systems deliver advertising content only when the mobile device is online. If the web browser of the mobile device is not connected to the Internet, however, the advertisement cannot be inserted into the web page. For a mobile device, such as a cellular telephone, it is common for the device to be disconnected from the network when receiving a when weak signal or when out of a coverage area. Furthermore, the advertisement hosting provider cannot collect advertising revenue for ads that are clicked when the device is offline, even though the end user has viewed and/or clicked the ad. In such cases, an advertiser may get the benefit of the advertising without paying the provider for use of the communication medium.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] FIG. **1** illustrates an embodiment of mobile device displaying a web application user interface including a web advertisement.

[0006] FIG. **2** illustrates an embodiment of communications system including a computing device and a web advertising server.

[0007] FIG. **3** illustrates an embodiment of a logic flow for storing caller identifier information.

[0008] FIG. **4** illustrates an embodiment of a logic flow for storing a web advertisement.

[0009] FIG. **5** illustrates an embodiment of a logic flow for inserting a web advertisement into a web application.

[0010] FIG. **6** illustrates an embodiment of a logic flow for inserting a web advertisement into a web application.

[0011] FIG. **7** illustrates an embodiment of a mobile device displaying a telephone application user interface including a web advertisement.

DETAILED DESCRIPTION

[0012] Various embodiments are directed to a system and methods for selecting a web advertisement based on caller identifier information. The caller identifier information may comprise, for example, caller identification (caller ID) data, a telephone number, and/or any other suitable identifier associated with an identity of one or more calling parties or called parties. The caller identifier information may be obtained from an incoming call to the mobile device or from an outgoing call from the mobile device. An ad request may be generated based on the caller identifier information by the mobile device and sent to a web advertising server. The ad request may be sent to the web advertising server immediately or deferred until at a later time. The ad request may be used for querying the web advertising server with the caller identifier information.

[0013] In response to the ad request, the web advertising server may select a relevant web advertisement based on the caller identifier information and may send the relevant web advertisement to the mobile device. The mobile device may receive the web advertisement relevant to the caller identifier information from the web advertising server and store the web advertisement in a local database on the mobile device.

[0014] On the mobile device, the web advertisement may be inserted into a web application. The web advertisement may be displayed in the telephone user interface software or in a separate software application. The web advertisement may be displayed immediately in a user interface on the mobile device such as in a telephone user interface during a call. The web advertisement also may be stored and displayed at a later time.

[0015] When the user views and/or clicks on the web advertisement, the mobile device logs the interaction (e.g., view and/or click) of the user with the web advertisement. User/ad interaction may be submitted to web advertising server immediately (online mode) or deferred (offline mode). In some implementations, the user may receive credit for interacting

with web advertisements. For example, a business method may be implemented in which revenue from the advertiser may be used to partially or wholly subsidize the user's ownership or service plan for the mobile device.

[0016] In various implementations, the described embodiments enable advertisers to acquire valuable information about relationships between buyers and sellers. In addition, such information may be collected in an efficient and inexpensive manner. The described embodiments allow advertisers to quickly gain insight into specific types of buyer-seller relationships and generate precision-targeted advertisements based on the specifics of an individual user. For example, an advertiser may target a user based on the identification of a probable existing relationship between a customer and a seller or service provider. The advertiser also may make a special offer available to an existing customer or may make a special offer from a competitor to a potential customer.

[0017] The caller identifier information of an incoming call or of an outgoing call may provide a useful context to query for additional related information. For example, the user may benefit from knowing if there are recent news articles about a vendor that he or she is calling. In some implementations, when a friend calls, the user may benefit by being reminded of the caller's birthday, anniversary, etc. This information may generate a query to an advertising server which may then result in an offer to the user being displayed in a web application user interface on the mobile device. In these cases, the user of the mobile device benefits from the additional context-sensitive information, and an advertiser benefits from reaching a potential customer who has a significant likelihood of being interested in targeted offers from an advertiser.

[0018] The described embodiments also provide an additional advantage in that information may be obtained from caller identifier tags (e.g., caller ID tags) or subsequent queries. The information obtained from the caller identifier tags or subsequent queries need not be used immediately. Instead, this information may be stored or cached for later use at an appropriate time, even when the mobile device **100** is not immediately connected to a network or out of cellular coverage, such as in an airplane or in a tunnel.

[0019] A further advantage of the described embodiments is that the information obtained from the caller identifier tags or subsequent queries may be used directly in a web application on the mobile device. This is advantageous to the user because the interaction model with a web application (e.g., inputs using a stylus, keypad, mouse, etc., clicking hyperlinks, scrolling pages, and so forth) is familiar to the user. Additionally, web publishers are familiar with web application programming and thus need no special programming skills specific to the mobile device of the user. Moreover, the web application provides a simple mechanism to link further information or web resources directly to the caller identifier information without having to switch applications or wait for a special software application to start up ("boot").

[0020] Numerous specific details are set forth to provide a thorough understanding of the embodiments. It will be understood by those skilled in the art, however, that the embodiments may be practiced without these specific details. In other instances, well-known operations, components and circuits have not been described in detail so as not to obscure the embodiments. It can be appreciated that the specific structural and functional details disclosed herein may be representative and do not necessarily limit the scope of the embodiments.

[0021] Reference throughout the specification to "various embodiments," "some embodiments," "one embodiment," or "an embodiment" means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment. Thus, appearances of the phrases "in various embodiments," "in some embodiments," "in one embodiment," or "in an embodiment" in places throughout the specification are not necessarily all referring to the same embodiment. Furthermore, the particular features, structures or characteristics may be combined in any suitable manner in one or more embodiments.

[0022] FIG. **1** illustrates a mobile device **100** suitable for implementing various embodiments. As shown, the mobile device **100** may be implemented as a combination handheld computer and mobile telephone, sometimes referred to as a smart phone. It can be appreciated that the mobile device **100** may comprise a computing device having a handheld form factor. While certain exemplary embodiments may be described with the mobile device **100** implemented as a smart phone by way of example, the mobile device **100** may be implemented as other types of computing devices such as a mobile telephone, a software telephone phone running on a computer, or other suitable computing device having computing and communications capabilities in accordance with the described embodiments. Exemplary computing devices may include a personal computer (PC), desktop PC, notebook PC, laptop computer, smart phone, mobile telephone, personal digital assistant (PDA), combination mobile telephone/PDA, mobile computing device, user equipment (UE), mobile unit, subscriber station, video device, television (TV) device, digital TV (DTV) device, high-definition TV (HDTV) device, media player device, gaming device, messaging device, pager, or any other suitable communications device in accordance with the described embodiments.

[0023] In various embodiments, elements of the mobile device **100** or other computing device may comprise physical and/or logical components for communicating information which may be implemented as hardware components (e.g., computing devices, processors, logic devices), executable computer program instructions (e.g., firmware, software) to be executed by various hardware components, or any combination thereof, as desired for a given set of design parameters or performance constraints.

[0024] The mobile device **100** generally may be configured to support or provide cellular voice communication, wireless data communication, and computing capabilities in accordance with the described embodiments. The mobile device **100** may comprise various components for providing such capabilities including, for example, a printed circuit board (PCB), one or more processors (e.g., host processor, radio processor), one or more transceivers (e.g., voice communications transceiver, data communications transceiver, GPS transceiver), memory (e.g., volatile or non-volatile memory, removable or non-removable memory, erasable or non-erasable memory, writeable or re-writeable memory), internal and/or external antennas, a rechargeable battery, and others.

[0025] In various implementations, the mobile device **100** may form part of a wired communications system, a wireless communications system, or a combination of both. For example, the mobile device **100** may be arranged to communicate information over one or more types of wired communication links such as a wire, cable, bus, printed circuit board (PCB), Ethernet connection, peer-to-peer (P2P) connection, backplane, switch fabric, semiconductor material, twisted-

pair wire, co-axial cable, fiber optic connection, and so forth. The mobile device **100** may be arranged to communicate information over one or more types of wireless communication links such as a radio channel, satellite channel, television channel, broadcast channel infrared channel, radio-frequency (RF) channel, Wireless Fidelity (WiFi) channel, a portion of the RF spectrum, and/or one or more licensed or license-free frequency bands. Although certain exemplary embodiments may be described as using a particular communication media by way of example, it may be appreciated that the principles and techniques discussed herein may be implemented using various communication media and accompanying technology.

[0026] The mobile device **100** may provide voice and wireless data communications functionality by communicating with a mobile network such as a Code Division Multiple Access (CDMA) network, Global System for Mobile Communications (GSM) network, North American Digital Cellular (NADC) network, Time Division Multiple Access (TDMA) network, Extended-TDMA (E-TDMA) network, Narrowband Advanced Mobile Phone Service (NAMPS) network, third generation (3G) network such as a Wide-band CDMA (WCDMA) network, CDMA-2000 network, Universal Mobile Telephone System (UMTS) network, and others.

[0027] The mobile device **100** also may support wireless wide area network (WWAN) data communications services including Internet access. Examples of WWAN data communications services may include Evolution-Data Optimized or Evolution-Data only (EV-DO), Evolution For Data and Voice (EV-DV), CDMA/1xRTT, GSM with General Packet Radio Service systems (GSM/GPRS), Enhanced Data Rates for Global Evolution (EDGE), High Speed Downlink Packet Access (HSDPA), High Speed Uplink Packet Access (HSUPA), and others.

[0028] The mobile device **100** may provide wireless local area network (WLAN) data communications functionality in accordance with the Institute of Electrical and Electronics Engineers (IEEE) 802.xx series of protocols, such as the IEEE 802.11 a/b/g/n series of standard protocols and variants (also referred to as "WiFi"), the IEEE 802.16 series of standard protocols and variants (also referred to as "WiMAX"), the IEEE 802.20 series of standard protocols and variants, and others.

[0029] The mobile device **100** also may be arranged to perform data communications functionality in accordance with shorter range wireless networks, such as a wireless personal area network (PAN) offering Bluetooth® data communications services in accordance with the Bluetooth® Special Interest Group (SIG) series of protocols, specifications, profiles, and so forth. Other examples of shorter range wireless networks may employ infrared (IR) techniques or near-field communication techniques and protocols, such as electromagnetic induction (EMI) techniques including passive or active radio-frequency identification (RFID) protocols and devices.

[0030] The mobile device **100** may comprise various input/output (I/O) interfaces for establishing connections to other devices. The I/O interfaces may comprise, for example, a serial connection port, an IR port, a Bluetooth® interface, a network interface, a WiFi interface, a WiMax interface, a cellular network interface, a wireless network interface card (WNIC), a transmitter, a receiver, a transceiver, and so forth. In wireless implementations, the I/O interfaces may comprise components such as one or more amplifiers, filters, control logic, antennas, and so forth.

[0031] In some implementations, a connection may comprise a wired connection such as a Universal Serial Bus (USB) connection (e.g., USB host, USB net), Serial Bus Interface (SBI) connection (e.g., FireWire®), or other suitable wired connection to directly connect (e.g., tether, plug in) the mobile device **100** to a device when in close proximity. In other implementations, a connection may comprise a short range wireless connection (e.g., Bluetooth® connection, IR connection) to communicatively couple the mobile device **100** to a device when in close proximity. In some implementations, the a connection may comprise a network connection between the mobile device **100** and a device such as a WiFi connection, WiMax connection, Ethernet connection, cellular network (e.g., 1G/2G/3G) connection, or other suitable packet data or switched connection in accordance with the described embodiments.

[0032] The mobile device **100** may comprise various software programs such as system programs and applications to provide computing capabilities in accordance with the described embodiments. Exemplary system programs may include, without limitation, an operating system (OS), device drivers, programming tools, utility programs, software libraries, application programming interfaces (APIs), and so forth. Exemplary operating systems may include, for example, a Palm OS®, Microsoft® OS, Unix® OS, Linux® OS, Symbian OS™, Embedix OS, Binary Run-time Environment for Wireless (BREW) OS, JavaOS, a Wireless Application Protocol (WAP) OS, and others.

[0033] The mobile device **100** may provide a variety of applications for allowing a user to accomplish one or more specific tasks. Exemplary applications may include, without limitation, a web browser application, telephone application (e.g., cellular, VoIP, PTT, voicemail), networking application, messaging application (e.g., e-mail, IM, SMS, MMS, chat, video teleconferencing, facsimile), contacts application, calendar application, word processing application, spreadsheet application, database application, media application (e.g., video player, audio player, multimedia player, digital camera, video camera, media management), location based services (LBS) application, gaming application, and so forth. Messaging applications may be arranged to communicate various types of messages in a variety of formats. Each messaging application may be representative of a particular kind of transport, enabling handling of messages of particular types and formats for the particular application. It is to be understood that the embodiments are not limited in this regard and that the mobile device **100** may include other applications in accordance with the described embodiments. The applications may comprise or be implemented as executable computer program instructions stored on computer-readable storage media such as volatile or non-volatile memory capable of being retrieved and executed by a processor to provide operations for the mobile device **100**.

[0034] The memory also may implement various databases and/or other types of data structures (e.g., arrays, files, tables, records) for storing data for use by the processor and/or other elements of the mobile device **100**. The mobile device **100** may comprise, for example, a message content database arranged to store content and attachments (e.g., media objects) for various types of messages sent and received by one or more messaging applications. The mobile device **100**

may comprise a message log arranged to track various types of messages which are sent and received by one or more messaging applications. Entries in the message log may reflect recently made and/or attempted communications. In some implementations, the entries in the message log may be accessed by the user for replying to a missed message and/or for reinitiating or reattempting communication with a particular individual.

[0035] The mobile device **100** may comprise a contacts database arranged to store contact records for individuals or entities specified by the user of the mobile device **100**. The contact record for an individual may comprise identifying information such as first name, last name, company/employer name, mailing addresses (e.g., home, work, other), telephone numbers (e.g., home, work, mobile, fax, pager), e-mail address (e.g., home, work, primary, alternate), IM screen names, SMS identifier, MMS identifier, personal information, notes, and so forth. The contacts database may be used or accessed when receiving and/or sending various types of messages. In some cases, identifying information (e.g., telephone number, e-mail address, IM screen name, SMS identifier, MMS identifier, etc.), included in messages received by messaging applications may be compared against the contacts database to identify the sender of a message. The contacts database also may be used or accessed when composing and/or sending messages. For example, the user of the mobile device **100** may search for and open the contact record of a particular individual to initiate communication. In addition, contact records in the contacts database may be filtered and matched against text typed by a user in one or more messaging applications to facilitate message addressing.

[0036] The mobile device **100** may comprise a preferences database arranged to store various settings such as rules and parameters for controlling the operation of the mobile device **100**. In some embodiments, the preferences database may store privacy rules and security parameters for controlling communications options for messaging applications provided by the mobile device **100**.

[0037] The mobile device **100** may comprise a media database arranged to store various types of media content such as image information, audio information, video information, A/V information, and/or other data. In some embodiments, the media database may be arranged to store various types of compressed or uncompressed content or information. The content or information may include command information, control information, routing information, processing information, system file information, system library information, software (e.g., OS software, file system software, application software, game software), firmware, an application programming interface (API), a program, an applet, a subroutine, an instruction set, an instruction, computing code, logic, words, values, symbols, and so forth.

[0038] The mobile device **100** may comprise various components or devices for interacting with an application such as keypad **102** for inputting data and/or commands and a display **104** (e.g., touch-sensitive screen) for presenting one or more user interfaces and receiving user input. It can be appreciated that the mobile device **100** may comprise a variety of components or devices for use with one or more applications such as a stylus, keys (e.g., input keys, preset and programmable hot keys), buttons (e.g., action buttons, a multidirectional navigation button, preset and programmable shortcut buttons), a jog-dial wheel, switches, a microphone, speakers, an audio headset, a camera, and so forth.

[0039] In accordance with various embodiments, the mobile device **100** may present a web browser user interface (UT) **105** an instance of a web browser which may be implemented by a desktop and/or mobile version of a web browser such as Internet Explorer®, Mozilla®, Firefox®, Safari®, Opera®, Netscape Navigator®, and/or any other suitable web browser in accordance with the described embodiments. The web browser may support various computer programming languages, standards, web protocols, and/or technologies required to implement the described embodiments. Exemplary computer programming languages, standards, web protocols, and/or technologies which may be used by one or more embodiments may include, but are not limited to, HTML, XHTML, XML, WML, VMRL, Flash®/ActionScript, Macromedia® Flash®, JavaScript, ECMAScript, JScript, Basic, Visual Basic®, Visual Basic® Scripting Edition(VBScript), CSS, CSS2, Asynchronous JavaScript and XML(Ajax), Flex®, Java®, Python, Perl®, C#/.net, Flash®, and/or other suitable programming, scripting, or Virtual Machine (VM)-based languages. In addition, the web browser may support "local" surfing, where "localhost" resources may be accessed with no requirement for connectivity to a network. It can be appreciated that some present day web browsers may attempt to connect to a network even when only localhost resources are needed, which may interfere with the operation of some embodiments.

[0040] In various implementations, the web browser may provide the basis of the user interface and may include a language interpreter such as a script interpreter for computer programming languages such as JavaScript®, Flash®, VBScript, and/or other scripted programming languages where browser-based scripts, bytecode sets, or languages are interpreted in real time by runtime interpreter. The web browser may provide a platform for running web applications in the web browser using various web technologies such as HTML, XHTML, XML, Asynchronous JavaScript and XML (Ajax), and so forth.

[0041] As shown, the web browser UT **105** may display a web application UT **110** corresponding to a web application. In this exemplary embodiment, the web application may comprise a news reader application or widget, and the web application UT **110** may display headlines for one or more news items. In various implementations, the headlines may comprise hyperlinks to the full versions of the news items.

[0042] In various embodiments, the web browser may implement an application management framework as described in U.S. patent application Ser. No. 12/181,776 titled "Application Management Framework for Web Applications," which was filed on Jul. 29, 2008 and is entirely incorporated by reference. The application management framework may run within the web browser and may be written in any computer programming language supported by the web browser such as in one or more programming, scripting, or VM-based languages. For example, various standard web technologies such as HTML, CSS, JavaScript, ECMAScript may be applied to create the application management framework.

[0043] The application management framework may comprise and encapsulate multiple web applications which may be written in any language supported by the web browser. The source code for the web applications and for the application management framework may be highly portable across a wide array of hardware and software platforms such as desktop computers, mobile phones, and so forth. Additionally, a

central server can pre-load the set of web applications into the application management framework and serve the entire application management framework to many computing devices. In some embodiments, the web applications may be implemented within the application management framework as one or more mini applications or widgets.

[0044] The application management framework may control aspects of the one or more of the contained web applications. For example, the application management framework may control which web applications is visible to the user at a given time, whether a web application is actively processing data, and/or when to direct a web application to be "refreshed" or reloaded into the web browser. The application management framework also may prompt one or more of the contained web applications to reload or update its data.

[0045] In various implementations, the application management framework may provide a mechanism for developers to incorporate multitasking into one or more of the web applications. For example, by programmatically "hiding" a web application using a hidden frame, the application management framework may allow a web application to run in the background while the user sees the user interface of a different web application.

[0046] The application management framework may allow a user to switch between and among the web applications quickly without having to re-launch the web browser or HTML application environment. In various implementations, for example, a plurality of web applications may run simultaneously within the application management framework. In one embodiment, the web applications may run in an HTML "iframe" within the application management framework. When multiple web applications are already running and resident in memory, switching between and among the web applications generally requires very little time, thereby improving the user experience. Sharing the web browser application management framework provides the capability for rapidly switching between applications, allows for multitasking, facilitates using a common set of input controls for applications, and makes it possible for applications to be available with little perceived startup ("boot") time.

[0047] The web browser and/or the application management framework may capture user interaction events, such as mouse clicks, stylus clicks, keyboard input, jog wheel input, touchscreen input, voice input, button input, and so forth. One or more captured events may be selectively passed to one or more of the web applications contained in the application management framework. This facilitates creation of a group of web applications that together have a common set of user input controls. Additionally, it simplifies web application development for devices with limited input controls. For example, on a mobile telephone it is advantageous to permit control of a web application with one finger. In various embodiments, the application management framework may support the ability of a user to switch between and among the web applications through quickly using a single finger or "mouseover" action providing for a pleasant user experience. The application management framework may provide a user interface for rapidly switching between the web applications and receiving a common set of input controls. In various implementations, the web browser may comprise built-in widget controls implemented by the mobile device **100**.

[0048] As shown, the browser UT **105** may display a menu bar **115** comprising a set of icons. The menu bar **115** may be implemented as an application flip tray comprising a page flipping UT such that the user can flip through web applications or widgets very fast in response to a single user event such as single screen touch (e.g., pressing or sliding), button press (e.g., navigation button, a dedicated hard key, a soft key), or interaction with auxiliary controls such as a jog-dial wheel. The user also may select or advance to a particular web application by using any combination of touchscreen events (e.g., touching or pressing on an icon), button events (e.g., mobile device **100** may have dedicated hard or soft key buttons for select, next, and previous), jog-dial events, and screen events (e.g., clicking an icon via a mouse or other random navigation events. In some implementations, the icon tray may auto-hide itself to reserve available screen area. In such cases, the icon tray may only appear momentarily when the user is switching between web applications using the aforementioned events. In one or more embodiments, the menu bar **115** may be implemented as application management framework UI.

[0049] As depicted in this exemplary embodiment, the set of icons includes icons for switching between and among active web applications. As shown, the icons may be implemented as a clock icon, a web mail icon, a weather icon, a search icon, a news reader icon, and a stock listing icon. The icons may correspond, for example, to active web applications or widgets such as a clock application, a web mail application, a weather application, a search application, a news reader application, and a stock listing application. It can be appreciated, however, that the arrangement and order of the icons does not necessarily have to correspond to the order of the web applications. In some embodiments, for example, the user may set preferences, drag and drop, move, add, remove, and/or otherwise customize the set of icons displayed by the menu bar **115**.

[0050] It also can be appreciated the positions and shapes of the components of the menu bar **115** are not limited to the embodiment shown in FIG. **1**. The attributes of the menu bar **115** may be easily changed by modifying graphics elements or layout parameters of the underlying web page and are readily customizable by the web page author. For example, while the menu bar **115** is shown as a horizontal bar at the bottom of the web browser UT **105**, it also may be placed in a vertical bar along the left side of the web browser UT **105**. The menu bar **115** also may be hidden at times. As another example, any number of web application icons may be used, each corresponding to web application, as is practical.

[0051] In accordance with various embodiments, the mobile device **100** may provide a mechanism by which web-based advertisements are incorporated into web applications. For example, within the application management framework, web applications may use existing advertising link and scripting methods, yet be viewable on a wide range of devices, including computers and mobile phones.

[0052] As shown in the exemplary embodiment of FIG. **1**, the web application UT **110** presented by the mobile device **100** comprises a web advertisement such as a banner ad **120**. In this embodiment, the user of the mobile device **100** is presented with a web application UT **110** corresponding, for example, to a web application (e.g., news reader application) containing an ad area in a portion of its screen area. The ad area may be filled with an impression-based ad such as banner ad **120**. In various implementations, the banner ad **120** may be actionable (e.g., hyperlinked) and can be clicked on or selected via keypad or touch enabled controls of the mobile device **100**.

[0053] In this exemplary embodiment, when the user interacts with (e.g., clicks) the banner ad **120**, the web application may connect to a website affiliated with the web application developer, a merchant website, or another website or server to provide additional services. For example, another UT may be presented within the browser user interface **105** such as the UT of a merchant website associated with the banner ad **120** or other normal website on the Internet. In some cases, the user may be presented with a previously hidden screen, stored within the web application that permits either a more detailed view of the advertising information or an interactive screen where the user can interact with the advertisement.

[0054] In various implementations, a particular web advertisement to be displayed by the mobile device **100** may be selected based on caller identifier information. The caller identifier information may be obtained from an incoming call to the mobile device **100** or from an outgoing call from the mobile device **100**. Based on the caller identifier information, the mobile device **100** may generate and send an ad request to a web advertising server. The ad request may be sent to the web advertising server immediately or deferred until at a later time. The ad request may be used for querying the web advertising server with the caller identifier information.

[0055] In some implementations, the ad request may comprise the caller identifier information. In other implementations, to maintain the anonymity of the customer or advertisers, the ad request may comprise a category of business rather than the actual caller identifier to perform the query. In one or more embodiments, a hash of sensitive information may be used to verify identity authenticity without having to disclose actual identity (e.g., certificate signing, etc.)

[0056] In response to the ad request, the web advertising server may select a relevant advertisement based on the caller identifier information and may send the relevant web advertisement to the mobile device **100**. The mobile device **100** may receive the web advertisement relevant to the caller identifier information and store the web advertisement in a local database on the mobile device.

[0057] On the mobile device **100**, the web advertisement may be inserted into a web application and displayed to the user. As shown in FIG. **1**, for example, the banner ad **120** may be inserted into a web application and displayed in the corresponding web application UT **100**. In some embodiments, the web advertisement may be displayed by the mobile device **100** in the telephone user interface software or in a separate software application. In some implementations, the web advertisement may be displayed immediately in a user interface on the mobile device such as in a telephone user interface during a call. The web advertisement also may be stored and displayed at a later time. For instance, web advertisements stored in the local database on the mobile device **100** may be inserted into a web application even when the mobile device **100** is not connected to an active network.

[0058] In various implementations, the mobile device **100** may obtain information from caller identifier tags (e.g., caller ID tags) or subsequent queries. The information obtained from the caller identifier tags or subsequent queries need not be used immediately. Instead, this information may be stored or cached by the mobile device **100** for later use at an appropriate time, even when the mobile device **100** is not immediately connected to a network or out of cellular coverage. Information obtained from the caller identifier tags or subsequent queries also may be used directly in a web application on the mobile device **100**.

[0059] When the user views and/or clicks on the web advertisement (e.g., banner ad **120**), the mobile device **100** logs the interaction (e.g., view and/or click) of the user with the web advertisement. For example, a business method may be implemented in which revenue from the advertiser may be used to partially or wholly subsidize the user's ownership or service plan for the mobile device.

[0060] In various embodiments, a web application on the mobile device **100** may interact with the server of an advertising provider in online or in offline modes. For example, user/ad interaction may be submitted to the server of an advertising provider immediately (e.g., online mode) or deferred (e.g., offline mode). Advertising content also may be cached (e.g., one or more links deep) so that the content of a clicked ad can be accessed when offline. An authentication sequence may be implemented to ensure legitimacy of ads that are viewed/clicked offline and deferred for later reporting. For example, when a user clicks an ad when the mobile device **100** is offline, the click is logged with a timestamp. An identifier, timestamp, and device certificate are combined in a hash and stored. The hash can later be compared against the device certificate to ensure a match to the timestamp/device. When online, the package is sent to the server of the advertising provider for ad revenue payment processing.

[0061] In some implementations, authentication or auditing steps may occur among the mobile device **100**, a web application distributer, a web application developer, and an advertising provider to ensure that the advertising transactions are legitimate and that "click fraud" does not occur. For example, parties to a transaction may be required to provide appropriate security credentials to ensure the security and integrity of the transactions among the parties.

[0062] In accordance with various embodiments, one or more of the web applications may include a web advertisement and/or may themselves be advertisements. In addition, various revenue sharing models may be implemented in accordance with the described embodiments. In some implementations, revenue generated when the banner ad **120** is clicked may be shared with the web application developer. For example, a web application developer may have several options for generating advertising revenue. One advertising option includes adding a web advertisement to a web application or widget. In some cases, a distributer of the web application may add a web advertisement to a web application during run-time. In other cases, the web application developer may include the web advertisement in the web application or include a web link or script within the web application so that the web application may obtain advertisements from the server of the advertising provider when requested.

[0063] Another advertising option is an ad-free implementation where the widgets are sponsored. In this case, the web application developer may pay the distributer of the web application to disable ads. The web application developer then owns the whole screen of the web application and the user experience. The web application may be effectively implemented as one large interactive branded advertisement. The web applications provide value to users while letting marketers get their message out. In some cases, the web application may comprise a direct click-through to the brand's website.

[0064] When advertisement displays are generated within the web application UT **110** on the mobile device **100**, the web application developer may receive a royalty. For example, the web application developer can receive a royalty

for each installation of their application on a device, for use/user interactions of their application on a device, for advertising revenue generated through their application on the device, and/or for the revenue generated by the action occurring subsequent to an ad or widget click-through (e.g., subsequent purchase of goods or services following a click-through to a merchant website). Ad interactions may use cost per thousand (CPM), cost per click (CPC), cost per (CP) application use models, and others. Such CPM, CPC, and CP application use models may be based on screen area reserved for ad interactions.

[0065] As described, various embodiments provide the user with an incentive to download and use web applications. In addition to the activities and services provided by the web applications, the user may receive credit for viewing and/or clicking on web advertisements which may be used to partially or wholly subsidize the user's ownership or service plan for the mobile device **100**.

[0066] The web application developer has a financial incentive to create web applications to share in advertising revenue and a mechanism to distribute authored web applications via a distributer. The web application developer also has a mechanism to obtain advertisements from the advertising provider. Furthermore, the web application developer may earn advertising revenue for transactions by the user even when the mobile device **100** is not online. The advertising provider may earn a profit from its advertisers and has a mechanism to distribute its advertisements via web applications.

[0067] The distributer has an incentive to distribute web applications to users by sharing in advertising revenue. Furthermore, the distributer may earn advertising revenue for transactions by the user even when the mobile device **100** is not online. This makes possible a business method of providing free or low-cost web applications to end users where advertising revenue may be shared among web application developers, device makers, service providers, and even end users. This creates a participation incentive for all involved. As described above, the embodiments create a self-sustaining "virtuous cycle" where all participants benefit. It can be appreciated that, in some embodiments, some or all of the roles of the user, the distributer, the web application developer, and the advertising provider may be played by common entities.

[0068] Further exemplary embodiments are discussed below in which like reference numerals refer to similar elements as described above. It can be appreciated that any of the features, structures or characteristics described in the context of a particular embodiment are not limited to such embodiment and are not intended to suggest any limitation as to the scope of use or functionality of such embodiment.

[0069] FIG. **2** illustrates an embodiment of a communications system **200** suitable for practicing various embodiments. Although FIG. **2** depicts a limited number of elements for purposes of illustration, it can be appreciated that the communications system **200** may include more or less elements as well as other types of elements in accordance with the described embodiments. Elements of the communications system **200** may comprise physical or logical entities for communicating information implemented as hardware components (e.g., computing devices, processors, logic devices), executable computer program instructions (e.g., firmware, software) to be executed by various hardware components, or combination thereof, as desired for a given set of design parameters or performance constraints.

[0070] As shown, the communications system **200** may comprise a computing device **202** and a web advertising server **204**. As shown, the computing device **202** may comprise a web browser **205** and a Web Virtual Machine (WebVM) **210**. In general, the WebVM **210** may implement a local web host to provide server functionality on the computing device **202** and to serve local applications to the web browser **205**. When implemented as a server on the computing device **202**, the WebVM **210** may support and provide access to multiple applications. The WebVM **210** may run server side code such as PHP, Python, PERL or CGI programming environments locally on the computing device **202**. The WebVM **210** also may implement web methods programming interfaces and web services extensions via SOAP, XML RPC, REST, and the like for enabling access to local resources of the computing device **202**. Accordingly, the computing device **202** may provide server side interfaces to access local resources such as a file system, a phonebook, a media store, a database, a hardware component (e.g., camera, microphone, etc.), a software component, and/or other controlled resource of the computing device **202**. Such interfaces also may implement server side code for allowing the user to write to a local resource such as a phonebook, media store, and so forth.

[0071] The WebVM **210** may implement security measures such as secure HTTP (https) and/or other login methods to obtain user authentication for preventing unauthorized access and use of the applications and/or other resources. The WebVM **210** may be configured to intermediate between the applications on the computing device **202** and the web browser **205** to broker local services and ensure that only a trusted entity is given access to specific functionality. The WebVM **210** also may implement various web based security models and access restrictions for evaluating function calls from a web browser which request access to local resources of the computing device **202**.

[0072] The web advertising server **204** may be arranged to store various types of web advertisements. The web advertising server may be further arranged to respond to ad requests and/or queries from the computing device **202** and deliver relevant web advertisements to the computing device **202**. In various implementations, the web advertising server **204** may comprise or utilize any suitable computing devices having computing capabilities and/or communications capabilities in accordance with the described embodiments. Exemplary computing devices may include, without limitation, a server, a server array or server farm, a web server, a network server, an Internet server, a distributed computing system, and so forth.

[0073] As shown, the web browser **205** may interact with a web application **206**. In various implementations, the WebVM **210** of the computing device **202** may be communicatively linked to an application management framework implemented by the web browser **205**. For example, although the web application **206** is shown as being separate from the web browser **205**, in some embodiments, the web application **206** may comprise one of multiple web applications encapsulated within an application management framework implemented by the web browser **205**.

[0074] If the computing device **202** is connected to a network, the web application **206** in conjunction with the application management framework and/or the WebVM **210** may request and obtain an advertisement from the web advertising

server **204** via the network. Advertisements may be obtained by the WebVM **210** even when the web application **206** is not running.

[0075] The advertisement may then be downloaded and inserted into the selected web application **206** regardless of whether the computing device **202** is connected to an active network and regardless of whether the given web application **206** is running or not. For example, if the computing device **202** is not immediately online, the web application **206** in conjunction with the application management framework and/or the WebVM **210** may load a cached or preloaded advertisement from local storage of the computing device **202**. The advertisement may then be inserted into the selected web application **206**. These cached or preloaded advertisements may be obtained from time to time by the WebVM **210** from the web advertising server **204**, regardless of whether a given web application is running or not.

[0076] If the computing device **202** is not online whenever a user views or clicks on an advertisement, the transaction is logged for later transmission. From time to time, when the computing device **202** is online, the WebVM **210** may then transmit the relevant transaction information to the web advertising server **204** so that the user may receive credit and/or the web application developer may receive an advertising commission. This may occur regardless of whether the web application **206** that contains the advertisement is running or not.

[0077] If the computing device **202** is online when the user clicks on an advertisement, the web application **206** in conjunction with the application management framework and/or the WebVM **210** may transmit the relevant transaction information to the web advertising server **204** so that the user may receive credit and/or the web application developer may receive an advertising commission. In an alternate embodiment, the WebVM **210** may instead defer the transmission of the advertising transaction details until a later time (e.g., to batch transmit many transactions at once).

[0078] FIG. **2** depicts one possible implementation of a WebVM **210** configured to run on a computing device **202** such as mobile device (e.g., mobile device **100**) or desktop computer. In various embodiments, the Web Virtual Machine (WebVM) **210** may be implemented as described in U.S. patent application Ser. No. 11/612,282 titled "System for Running Web Applications Offline and Providing Access to Native Services," which was filed on Dec. 18, 2006 and is entirely incorporated by reference.

[0079] As shown, the WebVM **210** interacts directly with the web browser **205** via a connection **215**, which may be implemented as an http network connection which runs on the computing device **202**. Typically this can be invoked by the web browser **205** connecting to a local host IP address (e.g., 127.0.0.1) or other suitable addresses or address and port combinations. Accordingly, different applications may be served by the WebVM **210** simultaneously on the different address port combinations and at different security levels with each application having different permissions levels and access rights to local resources.

[0080] The WebVM **210** connects to device services of the computing device **202** through interfaces such as application programming interfaces (APIs) including Device Memory API **238**, Device File API **243**, Device Threads API **247**, and specialized device functions and APIs **253**. It is noted that WebVM **210** uses APIs **238**, **243**, and **247** to connect resources that facilitate internal operation such as memory access, file system, and task/threading and are also used for porting of the WebVM **210** among different classes of devices and operating systems.

[0081] The interface **253** may be implemented as one or more meta-interfaces which represent the expandable nature of the WebVM **210**. In accordance with various embodiments, the interface **253** may comprise a Device Caller Identifier API. Using SOAP, REST, or other web services bindings, web programs running either in the WebVM **210** or via the web browser **205**, such as through Ajax, can access special services to the computing device **202**. For example, the computing device **202** may include a phonebook, call log, and access to caller identifier information on the computing device **202** which may be available as a C++ or Java service. By using the interfacing capabilities of the WebVM **210** through the interface **253**, it is possible to let web applications run locally on the computing device **202** (e.g., mobile device or desktop computer) without outside server dependencies to be able to access local services and maintain a client-server programming model based on web programming techniques and with web security models intact.

[0082] The computing device **200** also may include a phonebook or a digital media store for an on-device camera available as a C++ or Java service. For example web-based phone book application could access the local phonebook on the computing device **200** via the interface **253** and then store associations locally in an a local SQL database **213** to create hybrid functionality. Later the same web application can send or store the phonebook information retrieved via interface **255** to an online web portal on the internet.

[0083] In operation, the WebVM **210** operates several portions of an http server stack as depicted by the interaction of the web browser **205** and a network proxy **260** through a path **215**. The network proxy **260** may comprise a rule based network proxy engine implementing a software stack which redirects incoming network traffic either to the outside world via an interface **255** or towards an http server **265** via a path **245**. For example, a web application **206** authored in XHTML and running a local scripting language (in the web browser **205**) such as JavaScript or VBScript may request a new resource such as a new page or an XMLHttpRequest type data call. This request will be brokered from the web browser **205** through the network proxy **260** to the http server **265** for handling.

[0084] If the request is for a resource available on the Internet such as web page, a query to the web advertising server **204**, or similar addressable asset, the http server **265** can then pull the resource via path **255** and serve it back to the web browser **205** and the web application **206**. The http server **265** may also fetch the resource from one of several local objects in the WebVM **210**. Such local objects may include a locally mounted file system implemented by the http server **265**, a database implemented by a local application bundle manager **235** which is connected to the http server **265** via a path **240**, and a the local SQL database **213**.

[0085] If the request is a data call or a callback function to a server side scripting language (e.g., PHP, Python, Java Enterprise Edition, servlets or Common Gateway Interface Scripts), the http server **265** will hand the request off to a processing engine. In the case of a server side scripting language, the request is handed via a path **270** to a server side language support processing engine **275** which handles the request, provides language specific features, and maintains session management information or server side variables.

[0086] If the request is via web description language interface (e.g., SOAP, WSDL, REST, XML remote procedure call, or similar function), then the request can be handed off via a path **285** to a specialized web services manager **223** which functions as previously mentioned to complete the request functionality. For example, the web services manager **223** may access the Device Caller Identifier API **253** via path **233**. It is also possible to use the server side language support processing engine **275** to complete the call via a path **290** to the specialized web services manager **223** thereby enabling either Ajax only applications (e.g. applications which only have browser-based code and logic) or server-based code and logic to share SOAP/REST/Web services plug-ins.

[0087] The WebVM **210** also can provide access to a local SQL database **213** which is connected to the web services manager **223** via a path **217**. The local SQL database **213** provides the ability to store end user data such as preferences, location, or profile information as well as web application data, advertisements, and caller identifier data. The web application **206** running in conjunction with or within the web browser **205** can access the local SQL database **213** via a direct web services software call (e.g., SOAP call) which is issued directly through the web services manager **223**. The local SQL database **213** also may be accessed via server side scripts running in the server side language support processing engine **275**.

[0088] The local SQL database **213** also connects to a data synchronization engine **225** via a path **203**. Application resources are stored as application bundles in a database implemented by the application bundle manager **235**, which is directly connected via a path **240** to the http server **265**. The database implemented by the application bundle manager **235** is also connected to the data synchronization engine **225** via a path **230**.

[0089] In various implementations, an application bundle **225** can also be fully serviced with or without the HTTP server component by using a message passing interface **250** to interact with the web services manager **223**. This allows applications to have direct non-socket based services fulfilled to access local hardware or storage in an efficient manner. Examples of interface **250** may comprise intra-message passing frameworks such as the Linux DBus or other suitable message passing framework. For example, the web services manager **223** may communicate with the application management framework implemented by the web browser **205** over a direct message passing interface. In this model the application environment is dedicated—not just the browser, but browser-like. In other words, a browser rendering engine, such as a webkit renders HTML along with helper libraries for executing JavaScript/ECMAscript but it is not the browser application per se. That is, the user does not realize they are in a browser environment.

[0090] The application bundle manager **235** manages entire web application assets. An application may be served from a web archive comprising a collection of the necessary application files for a web application. The web archive file may comprise a bundle or package of the web assets of the web application including index files, HTML files, script files (e.g., JavaScript or server script such as PHP, Python or Perl), graphics (e.g., JPEGs, GIFs), animations, directories, and other web application components. The web archive can be packaged, stored, and compressed using file archiving libraries such as zip, gzip or zlib, or other suitable packing schemes.

[0091] When a request is made to a particular file which may be stored as a part of an atomic bundle comprising the application assets, the network proxy **260**, the http server **265**, and the application bundle manager **235** work in succession to resolve the file just as if it had been hosted on an Internet server. These components also work to resolve same origin policy security enforcement in much the same way that a browser cache does. In other words, xyz.foo.com/mypage.xhtml can be stored locally but accessed in a programmatic way rather than as the browser cache which acts in an automatic (non-programmatically controlled) method. Universal Resource Locators (URLs) which explicitly resolve to local addresses (such as ports running on 127.0.0.1, the http loopback address) resolve and are served to the local web browser **205** via the http interface **210**. In some cases, the web browser **205** may not be explicitly aware of the location which actually serves the file.

[0092] Additional functionality of the WebVM **210** is provided by using the synchronization engine **225** to update the locally stored applications, such as those stored in the database of the application bundle manager **235** and in the local SQL database **213** via paths **230** and **213**, respectively. This allows applications stored as bundles to be atomically stored on the computing device **202** as a single file. The synchronization engine **225** can then manage the storage, updating, upgrading, and subscription status of several such applications. For example a server could store information about a subscription application which the local synchronization engine **225** would enforce. When the subscription expires, the application bundle would be disabled or deleted. This functionality extends the type of application storage once associated with dedicated runtimes (e.g., Java Micro Edition) to web-based applications.

[0093] In addition, the synchronization engine **225** can store, synchronize and manage application data stored in the local SQL database **213**. In a typical (server-based) application, user data (e.g., shopping cart information on an e-commerce based web store or photographs on a photo sharing website) would be stored on that database of that site. Via the WebVM **210**, however, the ability to utilize web-based protocols to store application data locally is now available though web services calls. Moreover, the synchronization engine **225** can then move user data stored in the local SQL database **213** back to a classically running server at an Internet URL. The synchronization engine **225** therefore allows both applications and user data to be stored locally on the computing device **202**. Should the computing device **202** be lost or the user acquire a newer, perhaps upgraded device, the applications and the application data for the user can be seamlessly re-provisioned to the new device.

[0094] The synchronization engine **225** also can access the external Internet through the network proxy **260** by using a path **220**. This allows the synchronization engine **225** to move code assets and user and application data stored in the either the database of the application bundle manager **235** or local SQL database **213** and maintain them in accordance with business rules for subscription or provisioning of the user applications. Since it uses databases to store application bundles and user data, the WebVM **210** can also support different application permissions for different users allowing some to have access to more or different data than others.

[0095] The WebVM **210** also may implement various techniques as described in U.S. patent application Ser. No. 11/382,058 titled "Method for Synchronizing Software

Application and User Data for Asynchronous Client-Server and Peer to Peer Computer Networks," which was filed on May 8, 2006 and is entirely incorporated by reference. Accordingly, the WebVM **210** may support the creation of offline web applications and managing associated user data which is created offline that must later be reconciled with one or more central servers without a data collision. This provides knowledge of which version of different pieces of user data are new and which needs to be added to centralized servers. This applies to the actual web application program files so that software applications can be synchronized in addition to user data enabling a transparent online and offline user experience. Data sets can be distributed in manner which allows peer to peer synchronization and filedata distribution. The amount of transactional data required to synchronize data sets across a network can be minimized to increase efficiency of available bandwidth on a computer network.

[0096] The WebVM **210** also may implement an offline automated proxy cache as described in U.S. patent application Ser. No. 11/873,305 titled "Offline Automated Proxy Cache for Web Applications," which was filed on Oct. 16, 2007 and is entirely incorporated by reference. The offline automated proxy cache may support scheduling and automatic repeating of requests for updated data. In various embodiments, scheduling parameters may be used to automatically retrieve updated versions of requested content behalf of a publishing application while the publishing application is offline (e.g., closed, runtime not running, VM not running, etc.). In such embodiments, the WebVM **210** may make repeated Ajax requests on behalf of the publishing application which are repeatedly scheduled to run, even when the publishing application is not running. The publishing parameters may comprise scheduling parameters including, for example, a time interval parameter that defines a time interval for requesting data updates, a history parameter defining a maximum number of versions of the data that may be cached simultaneously, a data expiry parameter specifying when data in the cache expires, a retry parameter defining a number of times to retry a connection, and others.

[0097] Repeating/auto-scheduled requests may be terminated by overwrite (e.g., if the publishing application sends an identical request with no scheduling parameters, then scheduling is removed), by explicit request deletion (e.g., if the publishing application sends a parameter to delete the published request via serial number then the auto scheduled request is removed), by application deletion (e.g., if the publishing application is deleted by the user or the operating system, then all autopublish, and proxy requests associated with the application are removed from the system), by programmatic flush (e.g., an API exists on the proxy publisher to suspend a given or all proxy-publish requests), and/or by timeout (e.g., if a given publishing application does not renew the proxy publish request in a given time such as two weeks, then the proxy publisher may allow the repeated proxy request to age out, stop repeating, and be deleted from the queue along with any stored data and rules).

[0098] In various embodiments, some or all the above publishing parameters may be wrapped in a namespace determined by the application using the WebVM **210**. This namespace wrapping may be performed automatically. For example, if a publishing application such as MySuperWidget.wgt calls the WebVM **210**, the stored query and request data will be put in a namespace or table which is prefixed by MySuperWidget. In this way different applications can store requests with the proxy, and the results will be kept separate to avoid naming conflicts (e.g., two different vendors using the same variable name). Reverse URL naming (e.g., com.lampdesk.MySuperWidget) is explicitly encouraged for some implementations. In addition, a public namespace also may be provided for intercommunication messaging.

[0099] The WebVM **210** also may implement an application runtime environment as described in U.S. patent application Ser. No. 12/019,362 titled "System and Methods for Providing Granular Security for Locally Running Scripted Environments and Web Applications," which was filed on Jan. 4, 2008 and is entirely incorporated by reference. The application runtime environment may provide finer granularity and control at the function level rather then forcing an all or nothing approach to control over an application where the application either runs completely unfettered or is completely blocked from running. In particular, the application runtime environment may allow scripted runtime based applications to call local functions in a signed manner with function call level control.

[0100] With respect to web archives, the collection of web assets for a web application may be treated as a single file which can be signed and distributed in a secure fashion. A signing file (e.g., manifest file) may be automatically generated when bundling the web archive to provide details as to the APIs (e.g. SOAP calls) an application uses at signing when the application is registered with the certifying authority. When provided with a list of native functions to be used by an application, both the signing authority and the system where the application is eventually installed can compare functions that the application attempts to use against the list of functions which were signed and authorized. This provides an extra layer of security for the target operating system and implementation of system wide security policies to determine whether to allow an application to be installed and whether the functions that an application uses violate such policies.

[0101] The decision to execute a function call may be delegated in real-time to the operating system so that overall security is consistent with the blanket security policies of the operating system. By giving responsibility for allowing function calls to the operating system, platform level security control at the API level may be implemented across multiple runtime environments and requiring the runtime environments to only track which application is requesting what service. Accordingly, the operating system may maintain control of security and access for scripted applications and minimize the amount of security authority that must be deferred to the various application runtime environments.

[0102] The application runtime environment also may couple the signing process and installation of virtual machine or scripted runtime layer based applications back to core operating system in a unified way. In particular, the operating system may be involved in the accepting of signed scripted or bytecode based applications when granting permission to install an application. In addition, by using IP address and port address combinations, multiple separate web application running on the same local computing device may be tracked and kept separate. Accordingly, different security levels may be enforced among multiple applications running on the same device and application integrity may be persevered even if one of the applications is a "rogue" application.

[0103] The WebVM **210** also may implement a proxy publisher as described in U.S. patent application Ser. No. 12/116,697 titled "Automatic Conversion Schema for Cached Web

Requests," which was filed on May 7, 2008, which is entirely incorporated by reference. The proxy publisher may implement an automatic conversion schema which allows data results from a publishing application to be extracted and displayed by a display application other than the publishing application. For example, the proxy publisher may receive a request from a publishing application to retrieve a data result from a data server. The request may include a path to the data server and appended publishing parameters. In accordance with the automatic conversion schema, the publishing parameters may comprise decode parameters associated with the publishing application for allowing a display application other than the publishing application to decode variables of the data result and to transform the decoded variables for display. The proxy publisher may cache the request including the appended publishing parameters and retrieve the data result from the data server. The proxy publisher may locally store the data result along with the cached publishing parameters and may respond to a query from a display application for data associated with the publishing application by providing the cached data result and the publishing parameters to the display application.

[0104] In one exemplary embodiment, the publishing application may comprise an XHTML widget written in JavaScript and XHTML. The proxy publisher may receive a request (e.g., Ajax request) from the publishing application to retrieve a data result over the Internet from a remote data server. The request from the publishing application may include a path to the remote data server such a Uniform Resource Locator (URL) and appended publishing parameters.

[0105] The proxy publisher may process the request from the publishing application by caching the request including the appended publishing parameters and passing through the path to the remote data server. The remote data server may respond in normal fashion by returning a data result. The proxy publisher may receive the data result from the remote data server and process the data result by locally storing the data result with the cached publishing parameters for the publishing application.

[0106] The publishing parameters may comprise decode parameters associated with the publishing application for allowing a display application other than the publishing application to decode variables of the data result and to transform the decoded variables for display. The decode parameters may name the variables which can be extracted to publish a minimized representation of the publishing application. For example, a widget may publish a minimized representation of a weather application by releasing only the day's high temperature or a minimized representation of an e-mail application by releasing only the number of unread messages.

[0107] The decode parameters also may comprise data extraction rules and data formatting rules for instructing the display application how to extract web-request data (e.g. weather) from data result (e.g., response text), how to format the data (e.g. put this string+with the extracted web-request data), and how to display the data (e.g., display supplementary information such as a URL or text along with the response text).

[0108] Subsequently, the proxy publisher may receive a query from the display application. In some cases, the display application may request data from a specific named request. For example, the display application may request data associated with the publishing application. In other cases, the display application may ask the proxy publisher for a listing of all names for currently stored non-private (published) request data. By default, the proxy publisher may return all the named rules if the display application does not ask for a particular name.

[0109] Upon receiving an available name selected by the display application, the proxy publisher may provide a matching result including the locally stored data results and the publishing parameters to the display application. The display application may process the matching result by using the extraction rules to extract and decode the variables and using the formatting rules to display the extracted values in an appropriate manner. In some embodiments, the proxy publisher may reduce the processing required by the display application by extracting the variables from the data result using the data extraction rules and providing the extracted variables to the display application along with the data formatting rules.

[0110] In general, when the publishing application is a web-based application, the display application may be implemented as a viewer application or mobile device home screen outside of the web browser which cannot render standard web based content. For example, the display application may comprise a C/C++ active home screen, news aggregator, billboard, or mobile device ticker where only a small amount of information is displayed but that requires transformation of the cached data results to be usable. By using the decode parameters provided by the publishing application, the display application can transform the cached data into a format that it can use. Once the display application has obtained the variables in a usable format, the display application may republish the data in another format.

[0111] In accordance with the automatic conversion schema, the publishing parameters may comprise decode parameters for allowing the display application to decode variables of the data result and to transform the decoded variables for display. The decode parameters may comprise a name parameter (e.g., var_name) and a variable name for allowing the publishing application to name the variables extracted. The variable name may be used by outside applications to address a parameter left by the web application. The variable name may not be the name encoded in the offline proxy request, but it is the name (e.g., "Temp_Hi") referred to by an outside application.

[0112] The decode parameters may comprise a data extraction rules parameter (e.g., extraction_rules, var_extract_regex) and instructions for extracting information from the response or data result. The publishing application may cause the proxy publisher to store, with the information request, instructions for extracting information from the response. The extracting instructions may be used by an outside application (e.g., display application) or the proxy publisher to extract (find) the information referred to by the name parameter (e.g., var name) from the stored offline proxy request.

[0113] The extracting instructions may be implemented as a regular expression (regex) (e.g., JSON call): get_bytes[**23-28**] or a "capturing regular expression" in a server side scripting languages such as PERL regex. The extracting instructions also may be implemented via XPath or XQuery. The extracting instructions also may comprise an XSLT transformation. The extracting instructions also may comprise a custom program which is, in itself, the instructions for processing the request. For example, the stored instructions for

extracting information from the data result may be implemented as an XHTML page containing JavaScript.

[0114] The decode parameters may comprise a data formatting rules parameter (e.g., formatting rules) and instructions for displaying variables from the data result in a format used by an outside application (e.g., the display application). The publishing application may cause the proxy publisher to store, with the information request, a set of optional separate instructions for how to display and format the extracted data. The formatting instructions may comprise a string which is what an extracting application can display in an alert dialog. This parameter can be duplicated with different language parameters. The formatting instructions can be a transforming rule-set which takes the extracted value and displays it in a certain format (e.g. if 2007.04.11 is the date, then it is transformed via a regex to Apr. 11, 2007) such as via XSLT. The extraction instructions are used to extract the data returned by a server located at the URL formed by the calling application (e.g., publishing application), and the formatting instructions detail how the extracted data should appear in a certain application (e.g., display application) outside of the calling application.

[0115] The formatting instructions may be implemented by a regular expression (regex) separate from the regex used to extract the data. The formatting instructions also may comprise an XSLT transformation. The formatting instructions also may be implemented as a stored program in its own right. For example, the stored program is itself passed as a parameter which takes the extracted data and displays or formats the extracted data in a way which an outside application other than the calling application can use and process. For example, the stored program may comprise a scripted application such as XHTML+JavaScript. The display and formatting instructions also may be implemented by a custom language created for the purpose of formatting the extracted data. The display and formatting instructions also may be implemented by A C/C++ sprintf( ) capable string function parameter.

[0116] The decode parameters may comprise a private parameter (e.g., set_request_private) which may be implemented by a flag set so that the offline proxy request will not be readable by outside applications. The publishing application may deliberately not expose its data by directing the proxy to never honor a request from certain applications to provide security. As such, certain application may be prevented from receiving cached data results and publishing parameters for a given publishing application. Accordingly, the publishing application may make offline requests that are private (not shared) with other applications.

[0117] The publishing parameters may comprise event parameters or commands for asking the proxy publisher to perform actions on behalf of the application outside of request handling to allow web applications to behave as normal applications but with a background wakeup task. Whether the optional parameters can be executed is security level and operating system dependent. The event parameters may comprise a wake_upon (condition) parameter or command for requesting the proxy publisher to wake up (launch) an application when a certain offline proxy condition is met (e.g., e-mail received). Whether the application will actually be launched is left to security permissions or the operating system. The proxy publisher may implement an operating system service for sleeping applications to publish services which can be read and passed to other applications. For example, a C/C++ application can use the proxy publisher to post a request which self updates and presents a shared publishable result. In general, any compiled (statically linked) application can use the proxy publisher to wake up when a certain wake up condition is met.

[0118] The event parameters may comprise an alert_upon (condition) parameter or command for requesting the proxy publisher to post an alert to the operating system when a condition is met (e.g., publishing application needs attention). This allows a web application to post information via the proxy publisher. The response may be a posted message in a dialog box or a textual or iconic notification on the home screen/idle screen of the device. For example, a scripted widget application running on a cell phone device may provide an e-mail viewing service and may set an event such that when the proxy publisher discovers a new e-mail, an event request is posted to the device idle screen so that the user knows to look at their e-mail. The alert parameters also may comprise an optional alert_msg, parameter and an optional alert_urgency parameter.

[0119] The offline capabilities of a publishing application may be restricted in accordance with operating system security policies. For example, the proxy publisher may interact with the operating system security policies and permissions to restrict use of publishing application offline capabilities. In some embodiments, the proxy publisher will, for security purposes, include the application signature ID or referring page for the operating system to determine whether to execute a request in response to a wake up or alter condition.

[0120] The WebVM **210** also may be implemented as described in U.S. patent application Ser. No. 12/061,179 titled "System and Methods for Providing Access to a Desktop and Applications of a Mobile Device," which was filed on Apr. 2, 2008 and is entirely incorporated by reference. Accordingly, one or more web applications hosted on the computing device **202** may be configured to be accessed by a web browser running on a terminal separate from the computing device **202**. In various implementations, the UT displayed by the terminal may comprise an enhanced interface as compared to the UT of the computing device **202**. For example, an application on a mobile device may be configured to serve up a UT comprising a phone-centric interface to the browser of the mobile device and configured to serve up a UT comprising an enhanced (e.g., larger/better/different) interface when connected to the browser of the terminal. In general, an application may serve a simplified interface to display on the mobile device and an enhanced interface to take advantage of the larger and/or more useful assets (e.g., larger screen, a full-size keyboard, a mouse, memory, browser plugins, hardware, etc.) of the terminal. For instance, an application on a mobile device which uses 4-way navigation and 2 soft keys when in a phone mode may serve an enhanced UT to the terminal that can use navigation hardware such as the full keyboard and mouse and that displays more content in the larger screen of the terminal.

[0121] The use of web-based technologies may allow a mobile device to deliver rich data applications such as small widgets or even conventional larger applications. In some cases, for example, a mobile device may be configured to host and run PC applications. In such cases, an enhanced version of the application may be run when accessed by the terminal while a simpler version of the application runs when accessed by the hosting mobile device. The application may be configured to support both environments without requiring modification of the application in the process. As such the appli-

cation may detect its environment and run differently when used by the mobile device and when used by the terminal.

[0122] The WebVM **210** also may be implemented as described in U.S. patent application Ser. No. 12/181,776 titled "Application Management Framework for Web Applications," which was filed on Jul. 29, 2008 and is entirely incorporated by reference. In various embodiments, the application management framework may interact with a web browser and the WebWM **210**. When combined with the WebVM **210**, the capabilities of the application management framework may be extended to provide several additional advantages. For example, one or more of the web applications within the application management framework may interact with local web applications or native applications running on a local server within the WebVM **210**, all within the computing device **202** itself. This is advantageous during times when the computing device **202** is not connected to a network, or when there is a need to store data from a web application locally on the computing device **202**. In various embodiments, resident or nonresident web applications such as widgets may include the ability to publish a notify to a home screen of the computing device via an offline proxy implemented by the WebVM **210**.

[0123] In some cases, web applications may be inserted directly in the source code for the application management framework. Additionally or alternatively, the WebVM **210** may store one or more web publications to be loaded by the application management framework at startup or upon request by the user. In various embodiments, a list of web applications may be stored in "cookies" on the computing device of the user so that the web applications can be reloaded or configured. In some cases, the list of web applications may be served via server-side logic (e.g., SOAP, REST, JSON, etc.). Some embodiments may use server-side languages (e.g., PHP) to permit building of a web application launcher that may be customized by the user and/or by the web application developer. Certain embodiments also may allow saving of user preferences, configurations, or web application data into a database implemented locally on the device of the user (e.g., via the WebVM **210**) or on a network server. In addition, the application management framework **100** may be compatible with "plug-in" technologies such as Adobe PDF, Flash®, VMRL, and others.

[0124] Additionally, a web application within the application management framework may utilize the proxy services of the WebVM **210** to access data or services from a different website than the website from which the initiating web application originated. Generally, the "origin policy" used for web applications prevents this behavior such that a script running in a web browser is only able to access or modify data at the website from which the script originated. The application management framework, when combined with the WebVM **210**, provides a mechanism to work around this limitation. A suitable security policy may then be implemented within the WebVM **210**.

[0125] Furthermore, the WebVM **210** can cache frequently needed data so that it is immediately available to a web application, without requiring the user to wait to access the data using the network. This vastly improves the overall user experience, so that it feels to the user that data is always available, even if the connection to the network is low or unavailable.

[0126] FIG. **3** illustrates one embodiment of a logic flow **300** for storing caller identifier information which may be representative of the operations executed by one or more embodiments described herein. The logic flow **300** may be performed by various systems and/or devices and may be implemented as hardware, software, firmware, and/or any combination thereof, as desired for a given set of design parameters or performance constraints. For example, one or more operations of the logic flow **300** may be implemented by executable programming instructions to be executed by a logic device (e.g., computer, processor).

[0127] In this exemplary embodiment, caller identifier information may be stored to an on-device database, such as the local database **213**. Upon receiving a caller identifier event (step **302**), the computing device **202** (e.g., mobile device **100**) and/or WebVM **210** records the caller identifier information (step **304**) and stores the caller identifier information in the local database **213** (step **306**).

[0128] FIG. **4** illustrates one embodiment of a logic flow **400** for storing a web advertisement which may be representative of the operations executed by one or more embodiments described herein. The logic flow **400** may be performed by various systems and/or devices and may be implemented as hardware, software, firmware, and/or any combination thereof, as desired for a given set of design parameters or performance constraints. For example, one or more operations of the logic flow **400** may be implemented by executable programming instructions to be executed by a logic device (e.g., computer, processor).

[0129] In this exemplary embodiment, a web advertisement retrieved in response to an ad query based on caller identifier information sent to the web advertising server **204** may be stored to an on-device database such as the local database **213**. Upon receiving a caller identifier event (step **402**), the computing device **202** (e.g., mobile device **100**) and/or WebVM **210** records the caller identifier information (step **404**) and stores the caller identifier information in the local database **213** (step **406**). The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** queries the web advertising server **204** with the caller identifier information (step **408**) to obtain a relevant advertisement. The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** stores the received web advertisement in the local database **213** (step **410**).

[0130] FIG. **5** illustrates one embodiment of a logic flow **500** for inserting a web advertisement into a web application which may be representative of the operations executed by one or more embodiments described herein. The logic flow **500** may be performed by various systems and/or devices and may be implemented as hardware, software, firmware, and/or any combination thereof, as desired for a given set of design parameters or performance constraints. For example, one or more operations of the logic flow **500** may be implemented by executable programming instructions to be executed by a logic device (e.g., computer, processor).

[0131] In this exemplary embodiment, a caller identifier-triggered web advertisement may be inserted in a web application **206** when the caller identifier information has been stored in the local database **213**. The caller identifier information may be stored in accordance with logic flow **300**, for example.

[0132] The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** receives a request for an advertisement insertion from the web application **206** (step **502**). The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** obtains stored caller identifier information from the local

database **213** (step **504**). The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** queries a web advertising server **204** with the caller identifier information (step **506**) to obtain a relevant advertisement. The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** stores the received advertisement in the local database **213** (step **508**). The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** inserts the received advertisement into the web application **206** (step **510**).

[0133] Once an advertisement is inserted into the web application, a user may click on the advertisement (step **512**). In one embodiment, the computing device **202** (e.g., mobile device **100**) and/or WebVM **210** may log the click transaction (step **514**) for later transmission to the web advertising service provider associated with the web advertising server **204** so that a credit may be received.

[0134] In one or more embodiments, the web application **206**, web browser **205**, and/or the WebVM **210** may take action as a result of the click on the advertisement to provide the user with additional information or services related to the advertisement. In various implementations, the operation of the logic flow **500** does not require that the computing device **202** (e.g., mobile device **100**) be actively connected to a network at the time the ad request is made from the web application **206** or any of the other steps of logic flow **500**. That is, advertisements based on caller-id queries may be inserted into the web application **206** running on the computing device **202** (e.g., mobile device **100**) using the same procedure regardless of whether the device is "online" or "offline."

[0135] FIG. **6** illustrates an embodiment of a logic flow **600** for inserting a web advertisement into a web application which may be representative of the operations executed by one or more embodiments described herein. The logic flow **600** may be performed by various systems and/or devices and may be implemented as hardware, software, firmware, and/or any combination thereof, as desired for a given set of design parameters or performance constraints. For example, one or more operations of the logic flow **600** may be implemented by executable programming instructions to be executed by a logic device (e.g., computer, processor).

[0136] In this exemplary embodiment, caller identifier-triggered web advertisement may be inserted in a web application **206** when the web advertisement has been stored in the local database **213**. The web advertisement may be stored in accordance with logic flow **400**, for example.

[0137] The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** receives a request for an advertisement insertion from the web application **206** (step **602**). The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** obtains a stored advertisement (e.g., from an earlier query to the web advertising server **204**, or from a set of preloaded advertisements) from the local database **213** (step **604**). The computing device **202** (e.g., mobile device **100**) and/or WebVM **210** WebVM inserts the stored advertisement into the web application **206** (step **606**).

[0138] Once an advertisement is inserted into the web application, a user may click on the advertisement (step **608**). In one embodiment, the computing device **202** (e.g., mobile device **100**) and/or WebVM **210** may log the click transaction (step **610**) for later transmission to the web advertising service provider associated with the web advertising server **204** so that a credit may be received.

[0139] In one or more embodiments, the web application **206**, web browser **205**, and/or the WebVM **210** may take action as a result of the click on the advertisement to provide the user with additional information or services related to the advertisement. In various implementations, the operation of the logic flow **600** does not require that the computing device **202** (e.g., mobile device **100**) be actively connected to a network at the time the ad request is made from the web application **206** or any of the other steps of logic flow **500**. That is, advertisements based on caller-id queries may be inserted into the web application **206** running on the computing device **202** (e.g., mobile device **100**) using the same procedure regardless of whether the device is "online" or "offline."

[0140] FIG. **7** illustrates one embodiment of a mobile device **100** suitable for implementing various embodiments. As shown, the mobile device **100** may present a web browser UT **105** displaying a menu bar **115** and a telephone UT **700**. In this embodiment, the user of the mobile device **100** is presented with a web advertisement **705** which has been inserted into the telephone UT **700** while a call is in progress. In this case, the advertisement **705** has been selected based on the upcoming birthday of the other call participant and the knowledge of the geographic locale of the telephone call area code. By combining the caller identifier information within a web application, the telephone UT **700** displays a web advertisement **705** that may link directly the advertiser's web site (e.g., hyperlink), include a hyperlink for a map, a hyperlink to make an online reservation, and a telephone link to dial the telephone phone number directly from the mobile device **100**. All of this functionality may be available without requiring the user quit the telephone application and start a separate web browser or other software application, thereby vastly speeding user interaction.

[0141] It can be appreciated that many advertising variations are possible. For example, the web application may provide additional services where billing may be accomplished via a stored or manually entered credit card, billing may be accomplished by direct billing to the user's mobile billing/carrier account, optional services may be tied to the phone number received or called (e.g. it's Sam's birthday—would you like to send a gift?), the user may buy something from a web store/catalog while on the call or at some later time, and so forth.

[0142] In some implementations, the telephone number of the other call participant may be queried in a database to determine if the number is on a "watch list" for security purposes or based on the wishes of the user. An appropriate message may then be generated and displayed in the web application, when, for example, a caller is known to be from a fundraising organization. The telephone number of the other call participant may be queried against an advertising database to identify offers for competitors' products. The telephone number of the other call participant may be used to initiate other forms of communication during a call or at some later time. For example, a portion of the web application screen may become an instant messaging session with the other call participant so that text, pictures or files may be exchanged directly between the participants.

[0143] It also can be appreciated that a call may include more than two participants. For example, a web application UT may be divided to show all or some of the call participants' information and may permit transfer of text, pictures or files among the participants. Additionally, all of the partici-

pants may see the same display in their respective web application user interfaces, or they may see different displays with potentially different web advertisements inserted.

[0144] As described, various embodiments make it possible to generate precision-targeted advertisements within web applications on mobile devices based on a caller identifier queries. These advertisements may be highly correlated with the device user's interests and thus very valuable. Additionally, the web applications, advertisements, and content/services associated with a web advertisement may be available regardless of whether the device running the web application is online or offline.

[0145] Unless specifically stated otherwise, it may be appreciated that terms such as "processing," "computing," "calculating," "determining," or the like, refer to the action and/or processes of a computer or computing system, or similar electronic computing device, that manipulates and/or transforms data represented as physical quantities (e.g., electronic) within registers and/or memories into other data similarly represented as physical quantities within the memories, registers or other such information storage, transmission or display devices.

[0146] Some of the figures may include a flow diagram. Although such figures may include a particular logic flow, it can be appreciated that the logic flow merely provides an exemplary implementation of the general functionality. Further, the logic flow does not necessarily have to be executed in the order presented unless otherwise indicated. It also can be appreciated that while a logic flow may illustrate a certain sequence of steps, other sequences of steps may also be performed according to alternative embodiments. Moreover, some individual steps of a logic flow may include multiple sub-steps that may be performed in various sequences as appropriate to the individual step. Furthermore, additional steps may be added or some steps may be removed depending on the particular implementation.

[0147] In addition, the logic flow may be implemented by a hardware element, a software element executed by a computer, a firmware element embedded in hardware, or any combination thereof. In various embodiments, the logic flow may comprise, or be implemented as, executable computer program instructions. The executable computer program instructions may be implemented by software, firmware, a module, an application, a program, a widget, a subroutine, instructions, an instruction set, computing code, words, values, symbols or combination thereof. The executable computer program instructions may include any suitable type of code, such as source code, compiled code, interpreted code, executable code, static code, dynamic code, and the like. The executable computer program instructions may be implemented according to a predefined computer language, manner or syntax, for instructing a computer to perform a certain function. The executable computer program instructions may be implemented using any suitable high-level, low-level, object-oriented, visual, compiled and/or interpreted programming language in accordance with the described embodiments.

[0148] In various embodiments, a logic flow may comprise, or be implemented as, executable computer program instructions stored in an article of manufacture and/or computer-readable storage medium. The article and/or computer-readable storage medium may store executable computer program instructions that, when executed by a computer, cause the computer to perform methods and/or operations in accordance with the described embodiments. The article and/or computer-readable storage medium may be implemented by various systems and/or devices in accordance with the described embodiments. In such embodiments, a computer may include any suitable computer platform, device, system, or the like implemented using any suitable combination of hardware and/or software.

[0149] The article and/or computer-readable storage medium may comprise one or more types of computer-readable storage media capable of storing data, including volatile memory or, non-volatile memory, removable or non-removable memory, erasable or non-erasable memory, writeable or re-writeable memory, and so forth. Examples of computer-readable storage media may include, without limitation, random-access memory (RAM), dynamic RAM (DRAM), Double-Data-Rate DRAM (DDRAM), synchronous DRAM (SDRAM), static RAM (SRAM), read-only memory (ROM), programmable ROM (PROM), erasable programmable ROM (EPROM), electrically erasable programmable ROM (EEPROM), flash memory (e.g., NOR or NAND flash memory), content addressable memory (CAM), polymer memory (e.g., ferroelectric polymer memory), phase-change memory, ovonic memory, ferroelectric memory, silicon-oxide-nitride-oxide-silicon (SONOS) memory, magnetic or optical cards, or any other suitable type of computer-readable storage media in accordance with the described embodiments.

[0150] While certain features of the embodiments have been illustrated as described above, many modifications, substitutions, changes and equivalents will now occur to those skilled in the art. It is therefore to be understood that the appended claims are intended to cover all such modifications and changes as fall within the true spirit of the embodiments.

1. A computing device comprising:
a web application implemented by a web browser; and
a web virtual machine comprising a local web server host on the computing device to obtain caller identifier information for a telephone call, generate an ad query based on the caller identifier information, send the ad query to a web advertising server, receive a web advertisement from the web advertising server, and insert the web advertisement into the web application; and
a display to present the web advertisement in a user interface.

2. The computing device of claim **1**, wherein the web virtual machine comprises a device caller identifier interface for accessing the caller identifier information.

3. The computing device of claim **1**, further comprising a local database for storing the caller identifier information.

4. The computing device of claim **1**, further comprising a local database for storing web advertisements.

5. The computing device of claim **1**, the web virtual machine to send the ad query when the web application is not running.

6. The computing device of claim **1**, the web virtual machine to receive the web advertisement when the web application is not running.

7. The computing device of claim **1**, the web application to display the web advertisement when the computing device is not connected to an active network.

8. The computing device of claim **1**, further comprising an application management framework communicatively linked to the web virtual machine, the application management framework implemented within the web browser and encapsulating multiple web applications.

9. The computing device of claim **8**, wherein the web virtual machine comprises a web services manager in communication with the application management framework over a direct message passing interface.

10. A computer-implemented method for a computing device comprising:

obtaining caller identifier information for a telephone call;

generating an ad query based on the caller identifier information;

sending the ad query to a web advertising server;

receiving a web advertisement from the web advertising server;

inserting the web advertisement into a web application; and

displaying the web advertisement in an a user interface.

11. The method of claim **10**, wherein the telephone call comprises an incoming telephone call.

12. The method of claim **10**, wherein the telephone call comprises an outgoing telephone call.

13. The method of claim **10**, further comprising storing the caller identifier information in a local database.

14. The method of claim **10**, further comprising storing the web advertisement in a local database.

15. The method of claim **10**, wherein the ad query is sent and the web advertisement is received when the web application is not running.

16. The method of claim **10**, wherein the web advertisement is displayed when the computing device is not connected to an active network.

17. The method of claim **10**, wherein the web advertisement is displayed while the telephone call is in progress.

18. The method of claim **10**, further comprising logging advertising impressions generated by the web application.

19. The method of claim **10**, further comprising receiving credit for advertising impressions generated by the web application.

20. A computer-readable storage medium comprising executable computer program instructions that when executed cause a computing system to:

obtain caller identifier information for a telephone call;

generate an ad query based on the caller identifier information;

send the ad query to a web advertising server;

receive a web advertisement from the web advertising server;

insert the web advertisement into a web application; and

display the web advertisement in an a user interface.

* * * * *

Electronic Acknowledgement Receipt

EFS ID:	47496236
Application Number:	17863208
International Application Number:	
Confirmation Number:	2712
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Customer Number:	23280
Filer:	Clint R. Mehall
Filer Authorized By:	
Attorney Docket Number:	971600.1001
Receipt Date:	07-FEB-2023
Filing Date:	12-JUL-2022
Time Stamp:	17:38:37
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		9716001001FiledRespOA07feb23.pdf	282481 aab3d885ecc317d07b9370eb0db6b78034a26753	yes	39

	Multipart Description/PDF files in .zip description					
	Document Description		**Start**		**End**	
	Amendment/Request for Reconsideration-After Non-Final Rejection		1		1	
	Claims		2		12	
	Applicant Arguments/Remarks Made in an Amendment		13		39	
Warnings:						
Information:						
2	Affidavit-traversing rejections or objections rule 132	9716001001FiledDenning132Declaration07feb23.pdf	228172 324a2100b5d8b3b6abc5667624f5101ed607cc52		no	15
Warnings:						
Information:						
3	Non Patent Literature	Jing.PDF	804981 f28e704d5b455296da1af424e2f4f9b7be23702e		no	41
Warnings:						
Information:						
4	Other reference-Patent/Application/ Search Documents	Swift.PDF	2800404 ce2e84564cb51d8efa57b3da635cb53dc332dbd4		no	22
Warnings:						
Information:						
5	Non Patent Literature	ModernOperatingSystems.PDF	4576728 cde580bd67014293e732e69cbd8da2a09c863b14		no	9
Warnings:						
Information:						
6	Non Patent Literature	NewtonsTelecomeDictionary.PDF	935133 e8fb149bb5e2965af11f44213b105f4b8f94ac93		no	3
Warnings:						
Information:						

7	Non Patent Literature	MicrosoftComputerDictionary.PDF	4113605 c28824e5a0b4a28d54850af166323e4ccbefe2b2	no	15
Warnings:					
Information:					
8	Non Patent Literature	DenningCV.PDF	295163 c906ac46a5d72ce2b5ba27b6929f16ae3b59af5b	no	8
Warnings:					
Information:					
			Total Files Size (in bytes):	14036667	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/863,208	Filing Date 07/12/2022	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $480 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	02/07/2023	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 30	Minus	** 30	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	*** 4	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	ADMIN
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/ERNEST D DAVIS/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/863,208	07/12/2022	Ryan Hardin	971600.1001	2712

23280 7590 12/27/2022

Davidson, Davidson & Kappel, LLC
589 8th Avenue
22nd Floor
New York, NY 10018

EXAMINER
AJIBADE AKONAI, OLUMIDE

ART UNIT	PAPER NUMBER
3648	

NOTIFICATION DATE	DELIVERY MODE
12/27/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddk@ddkpatent.com

Applicant-Initiated Interview Summary	**Application No.** 17/863,208	**Applicant(s)** Hardin et al.		
	Examiner OLUMIDE T AJIBADE AKONAI	**Art Unit** 3648	**AIA (First Inventor to File) Status** No	**Page** 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	**Title**	**Type**
OLUMIDE T AJIBADE AKONAI	Primary Examiner	Telephonic
Ryan Hardin	Inventor	
Clint Mehall	Attorney of Record	
Scott Denning	Expert	

Date of Interview: 20 December 2022

Issues Discussed:

35 U.S.C. 112

The applicant and expert discussed discussed how and why claims 6 and 15 do not lack written description. No agreement was reached.

35 U.S.C. 102

The applicant discussed the differences between the claim limitations and the prior art of record. The examiner agreed that an amendment that specifies that the identifier is sole directed to only alphanumeric identifiers may overcome the Yoon description of an identifier. No other agreements were reached.

☑ Attachment

/OLUMIDE AJIBADE AKONAI/ Primary Examiner, Art Unit 3648	

Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04
Please further see:
MPEP 713.04
Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b)
37 CFR § 1.2 Business to be transacted in writing

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

From: Clint Mehall
To: Ajibade-Akonai, Olumide
Cc: "Ryan J. Hardin"
Subject: Interview Agenda - Application No.: 17/863,208
Date: Thursday, December 15, 2022 7:58:24 PM
Attachments: image001.png
971600.1001 Sent Interview Agenda 15dec22.PDF
EX-2002 Denning CV.pdf
Denning IPR Declaration.pdf

CAUTION: This email has originated from a source outside of USPTO. **PLEASE CONSIDER THE SOURCE** before responding, clicking on links, or opening attachments.

Dear Examiner Ajibade-Akonai,

Please find attached the interview agenda for our interview on Tuesday, December 20th at 11:00am, along with a declaration by Scott Andrew Denning that was filed in *inter partes* reviews IPR2022-01327; IPR2022-01328; IPR2022-01329 challenging U.S. Patent No. 10,049,387 from which the presents application claims priority. Mr. Denning's Curriculum Vitae is also submitted herewith.

We look forward to speaking with you.

Best regards,

Clint Mehall
Partner -- Patent Attorney
Davidson, Davidson & Kappel, LLC - www.ddkpatent.com
589 8th Avenue, 22nd Floor, New York, NY 10018; Ph: 212-736-1940 Ext. 288
THIS COMMUNICATION IS PRIVILEGED AND CONFIDENTIAL

Scott Andrew Denning

864-245-3310 s.denning@mac.com

PROFILE

Expert witness for the AI/Machine Learning, Mobile Wireless, Global Positioning System (GPS), Video CODEC, Network Communications, and Software domains. Known for the ability to read patents and to quickly identify infringing products. Highly proficient in reverse engineering and claim chart construction. Proven technical expertise and IP proficiency has led to the successful defense against patent assertions, invalidation of numerous patent claims, and the establishment of highly successful licensing programs.

EXPERT WITNESS HIGHLIGHTS

- Authored over 5000 pages of expert reports for Federal District Courts and ITC
- Authored over 1500 pages of declarations for PTAB

TESTIMONY AND EXPERT DOCUMENTS

Testimony:

- Deposition 9-9-2022, HPE v. Intellectual Ventures (Sterne Kessler Goldstein and Fox)
- Deposition 1-16-2020, Carucel v. Volkswagen (Sterne Kessler Goldstein and Fox)
- Deposition 8-27-2019, DSS v. Apple (Buether Joe & Carpenter)
- Deposition 10-25-2016, Alarm.com v. Vivint (Sterne Kessler Goldstein and Fox)
- Deposition 9-7-2016, Core Wireless v. LG (Davidson Berquist Jackson Gowdey)
- Deposition 6-23-2015, Parallel Networks v. IBM (McKool Smith)
- Deposition 3-22-2014, Parallel Networks v. Abercrombie, Inc., et al. (Buether Joe & Carpenter)
- Deposition 10-22-2013, LBSI v. Choice Hotels, Costco, Target, Wells Fargo, KeyCorp, U.S. Bank, Sally Beauty, Starbucks and Kroger (Buether Joe & Carpenter)
- Deposition 10-23-2013, LBSI v. True Value, Safeway and Chick-fil-A (Buether Joe & Carpenter)
- Deposition 10-24-2013, LBSI v. JPMorgan Chase, ConocoPhillips, Hyatt Corporation, and American Express (Buether Joe & Carpenter)
- Deposition 11-7-2013, LBSI v. MapQuest and Microsoft (Buether Joe & Carpenter)
- Deposition 11-8-2013, LBSI v. American Express, Bed Bath & Beyond, Sunburst, Home Depot, Barnes & Noble (Buether Joe & Carpenter)
- Deposition 1-15-2013, *ITC Inv. No. 337-TA-850, In the matter of: Certain Electronic Imaging Devices;* Flashpoint v. HTC et al. (H.C. Park & Assoc, PLC)

Expert Reports:

- Validity - *LBS Innovations LLC, v. BP et al.;* US 6,091,956 (Buether Joe & Carpenter)
- Infringement - *LBS Innovations LLC, v. BP et al.;* US 6,091,956 (Buether Joe & Carpenter)
- Non-Infringement - *ITC Inv. No. 337-TA-850, In the matter of: Certain Electronic Imaging Devices;* Flashpoint v. HTC et al. US 6,222,538, US 6,223,190, US 6,400,471 (H.C. Park & Assoc, PLC)
- Infringement - *LBS Innovations LLC, v. Aaron Bros et al.;* US 6,091,956 (Buether Joe & Carpenter)
- Validity - *LBS Innovations LLC, v. Aaron Bros et al.;* US 6,091,956 (Buether Joe & Carpenter, LLC)
- Opinion for defendant - *Ulyssix v. Wyle Labs;* Trade Secret Theft (Cochran & Owen, LLP)
- Opinion for defendant - *BDP v. HP;* Product Liability (Coughlin Betke, LLP)

Ex Partes Reexam Declarations:

- US 6,618,736 valid – Intellectual Ventures *(Sterne Kessler Goldstein Fox, PLCC)*

Inter Partes Review Declarations:

- US 8,725,132 valid – Intellectual Ventures (*Sterne Kessler Goldstein Fox, PLCC*)
- US 6,779,082 valid – Intellectual Ventures (*Sterne Kessler Goldstein Fox, PLCC*)
- US 7,848,701 invalid – Volkswagen *(Sterne Kessler Goldstein Fox, PLCC)*
- US 7,979,023 invalid – Volkswagen *(Sterne Kessler Goldstein Fox, PLCC)*
- US 8,463,177 invalid – Volkswagen *(Sterne Kessler Goldstein Fox, PLCC)*
- US 8,275,358 invalid – Four Kites *(Polsinelli LLP)*
- US 9,429,659 invalid – Four Kites *(Polsinelli LLP)*
- US 8,031,677 valid – Huawei *(Fish & Richardson, P.C.)*

- US 8,537,779 valid – Huawei *(Fish & Richardson, P.C.)*
- US 8,638,750 valid – Huawei *(Fish & Richardson, P.C.)*
- US 6,147,601 valid - *Vivint (Sterne Kessler Goldstein Fox, PLCC)*
- US 6,535,123 valid - *Vivint (Sterne Kessler Goldstein Fox, PLCC)*
- US 6,462,654 valid - *Vivint (Sterne Kessler Goldstein Fox, PLCC)*
- US 8,434,020 valid – Core Wireless *(Davidson Berquist Jackson Gowdey, LLP)*
- US 8,713,476 valid – Core Wireless *(Davidson Berquist Jackson Gowdey, LLP)*
- US 5,900,825 invalid – Mercedes *(Hogan Lovells, LLP)*
- US 7,550,870 invalid *('974, '758) - Avocent/Liebert (Davidson Berquist Jackson Gowdey, LLP)*
- US 7,550,870 invalid *('543, '934) - Avocent/Liebert (Davidson Berquist Jackson Gowdey, LLP)*
- US 7,672,104 invalid - *Avocent/Liebert (Davidson Berquist Jackson Gowdey, LLP)*
- US 7,330,817 valid - *Employment Law Compliance (Harper Washam, LLP)*

LITIGATION RELATED EXPERT SERVICES ENGAGEMENTS

- Hewlett Packard Enterprises v. Intellectual Ventures (Sterne Kessler Goldstein Fox, PLCC) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 6,618,736, 8,725,132 and US 6,779,082 for Intellectual Ventures*
  Status: ongoing
- DivX v. Harman (Morrison Foerster) *Provide video file and software analysis, expert report, and testimony for DivX in software licensing related litigation*
  Status: ongoing
- Mednet v. Veeva (Quarles & Brady LLP) *Provide software analysis, expert report, and testimony for Veeva in trade secret theft litigation regarding proprietary clinical study software technology*
  Status: ongoing
- ADT v. Vivint (Maschoff Brennan) *Provide device and software analysis, claim construction, non-infringement report and testimony for Vivint in ITC investigation*
  Status: complete
- Lithero v. AstroZenica (Robins Kaplan LLP) *Provide analysis, expert report, and testimony for Lithero in trade secret theft litigation regarding proprietary machine learning technology*
  Status: complete
- Carucel v. Volkswagen (Sterne Kessler Goldstein Fox, PLCC) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 7,848,701, 7,979,023 and US 8,463,177 for Volkswagen*
  Status: complete
- DSS v. Apple (Buether Joe & Carpenter LLP) *Provide Bluetooth related analysis, claim construction, Markman tutorial, infringement report and testimony for DSS*
  Status: complete
- Red Sabre Consulting v. Vertical Knowledge (Calfee, Halter & Griswold LLP) *Provide analysis, declaration, and testimony regarding source code analysis of 2 separate sources for clone detection regarding breach of contract for Vertical Knowledge*
  Status: complete
- West View Research v. BMW (*Gazdzinski & Associates, PC*) *Provide infotainment device and software analysis, claim construction, expert report, and testimony regarding infringement of US 9,299,053 for West View Research*
  Status: complete
- Four Kites v. Macropoint (Polsinelli LLP) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 8,275,358 and US 9,429,659 for Four Kites*
  Status: complete
- Advanced Media Networks v. AT&T (Buether Joe & Carpenter LLP) *Provide analysis, declarations, review of AT&Ts Petition for MSJ, expert reports and testimony regarding validity and AT&Ts infringement of US 5,960074 for Advanced Media Networks*
  Status: complete
- Advanced Media Networks v. Deutsche Telekom, et.al. (Pinsent Masons, Munich) *Provide analysis, review of* Deutsche Telekom / *T-Mobile's Petition for dismissal, expert reports and testimony regarding infringement of WO1998012832A1 for Advanced Media Networks*
  Status: complete

- Nokia v. Huawei (Fish & Richardson, P.C.) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 8,031,677 and 8,537,779 for Huawei*
  Status: complete
- T-Mobile v. Huawei (Fish & Richardson, P.C.) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US* 8,638,750 *for Huawei*
  Status: complete
- Core Wireless v. LG (Davidson Berquist Jackson Gowdey, LLP) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 8,434,020 and US 8,713,476 for Core Wireless*
  Status: complete
- Core Wireless v. Apple (Davidson Berquist Jackson Gowdey, LLP) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 8,434,020 and US 8,713,476 for Core Wireless*
  Status: complete
- Refco v. Cantor Fitzgerald (Grant & Eisenhofer P.A.) *Provide system and source code analysis, expert report and testimony of online gambling systems and wireless terminals for Refco*
  Status: complete
- Vivint v. Alarm.com (Sterne Kessler Goldstein Fox, PLCC) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 6,147,601 and US 6,535,123 for Vivint*
  Status: complete
- Mercedes Benz v. Manitto (Hogan Lovells, LLP) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 5,900,825 for Mercedes Benz*
  Status: complete
- Avocent/Liebert (Davidson Berquist Jackson Gowdey, LLP) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 7,550,870 for Avocent/Liebert*
  Status: complete
- Employment Law Compliance (Harper Washam, LLP) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art including US* 7,672,104 *and asserted prior art for ELC*
  Status: complete
- Avocent/Liebert (Davidson Berquist Jackson Gowdey, LLP) *Provide analysis, declaration, review of IPR petition and testimony regarding prior art against US 7,672,104 for Avocent/Liebert*
  Status: complete
- LBSI v. Nokia (Buether Joe & Carpenter LLP) *Provide geo-mapping and web technologies related analysis, claim construction, infringement report, invalidity rebuttal and testimony for LBSI*
  Status: complete
- Parallel Networks v. Abercrombie, Inc., et al. (Buether Joe & Carpenter) *Provide analysis regarding dynamic web page generation and applets, infringement report and testimony for Parallel Networks*
  Status: complete
- GPNE v. Fleetmatics (Frommer, Lawrence & Haug, LLP) *Provide GPRS - LTE (3GPP mobile phone) related analysis, claim construction, non-infringement report and testimony for Fleetmatics*
  Status: complete
- LBSI v. BP et al. (Buether Joe & Carpenter LLP) *Provide geo-mapping and web technologies related analysis, claim construction, infringement report, invalidity rebuttal and testimony for LBSI*
  Status: complete
- Unwired Planet v. Google (Munger, Tolles, & Olson LLP) *Provide telecommunications network and user app related analysis, claim construction, non-infringement report and testimony for Google*
  Status: complete
- GPNE v. Pantech, et al. (H.C. Park & Assoc, PLC) *Provide GPRS - LTE (3GPP mobile phone) related analysis, claim construction, non-infringement report and testimony for Pantech*
  Status: complete
- Adaptix v. Pantech, et al. (H.C. Park & Assoc, PLC) *Provide LTE - OFDMA (3GPP mobile phone) related analysis, claim construction, non-infringement report and testimony for Pantech*
  Status: complete
- Pragmatus v. Pantech, et al. (H.C. Park & Assoc, PLC) *Provide GPS/Navigation (mobile phone) related analysis, claim construction, non-infringement report and testimony for Pantech*
  Status: complete
- Motorola (Hogan Lovells, LLP) - *Provide operating system software and microprocessor hardware expert analysis*
  Status: complete

- Flashpoint v. HTC, et al. (H.C. Park & Assoc, PLC) *Provide Imaging Device (mobile phone camera) related GUI and software expert analysis, claim construction, non-infringement report and testimony for Pantech in ITC investigation*
  Status: complete
- Honeywell v. Furuno Electric Co., et al. (Bicklel & Brewer) *Provide Navigation related software and hardware analysis, invalidity report, non-infringement report and testimony for FLIR Systems and Raymarine*
  Status: complete
- Beacon Navigation v. Daimler (Hogan Lovells, LLP) *Provide GPS Navigation related C and C++ software and microprocessor hardware analysis, report and testimony for Daimler (Mercedes Benz)*
  Status: complete
- Beacon Navigation v. Mitsubishi (Quinn Emanuel Urquhart & Sullivan, LLP) *Provide GPS Navigation related C and C++ software and microprocessor hardware analysis, report and testimony for Mitsubishi*
  Status: complete
- Beacon Navigation v. Clarion (Quinn Emanuel Urquhart & Sullivan, LLP) *Provide GPS Navigation related C and C++ software and microprocessor hardware analysis, report and testimony for Clarion*
  Status: complete
- Beacon Navigation v. BMW (Finnegan Henderson Farabow Garrett & Dunner, LLP) *Provide GPS Navigation related C and C++ software and microprocessor hardware analysis, report and testimony for BMW*
  Status: complete
- Taylor v. IBM (Buether, Joe & Carpenter LLP) *Provide C++ source code analysis of 1.2M lines of IBM code for Taylor*
  Status: complete
- HTC (Finnegan Henderson Farabow Garrett & Dunner, LLP) *Provide microprocessor, GPS and GUI patent related analysis*
  Status: complete
- Ulyssix v. Wyle (Cochran & Owen, LLP) *Provide analysis and expert report for Wyle Labs in trade secret theft litigation involving military satellite downlink processor technology*
  Status: complete
- Opti v. VIA Technologies (Buether Joe & Carpenter LLP) *Provide semiconductor analysis and reports including semiconductor instrumentation and reverse engineering for VIA*
  Status: complete
- Dish Network *Provide video CODEC and data streaming related patent analysis on Sling Media products*
  Status: complete
- BDP v. HP (Coughlin Betke, LLP) *Provide forensic computer log analysis and report for HP in product liability litigation related to virtual disk arrays*
  Status: complete
- Tivo **v.** EchoStar Corp *Prior art search on US 6,233,389 for EchoStar*
  Status: complete

TECHNICAL EXPERTISE

Publications
- The Coefficient of Synonymy, Denning/Kalita 2019

Intellectual Property
- Testifying expert and expert report and declaration preparation
- Markman technology tutorial and claim terms arguments
- Detailed patent analysis and file history review
- Identification and analysis of prior art
- Consulting expert assisting with Preliminary Infringement Contentions, reverse engineering and testifying expert preparation
- Target ID, reverse engineering, and claim chart construction for patent assertion and invalidation

Deep/Machine Learning and Computational Linguistics
- Deep learning/data engineering in Python using Pandas, NumPy, SciKit learn, Keras, and Tensorflow
- Knowledge representation and concept mapping/matching using semantic networks and syntactic analysis in Python using PySpark
- Implementation of Deep Learning supervised and unsupervised Neural Networks in Python using Keras and Tensorflow
- Natural Language Processing (NLP) using BERT, word2vec, GloVe, SpaCy, ClearNLP, WordNet, and Latent Semantic Analysis (LSA)
- Domain specific language models (word2vec, GloVe) created from corpora from various technical fields including economic and medical for automatically determining domain specific word and phrase meanings
- Systems deployed on Azure, Amazon AWS, and private cloud

Engineering
- User Interface design - embedded graphical and menu interfaces for IOS, Android, GPS, robotic and security applications
- GIS mapping software interface and design including Google Maps, Microsoft MapPoint - Bing Maps, Know-Where Systems, ArcView
- Vector Processor signal processing routines including FFTs, DCTs, and FIR filters for FPGAs, AltiVec, MIPS64, and proprietary ASICs
- Parallel processing communications with MPI and OpenMP
- Software / algorithm development using C, C++, Java, Python, Perl - personally written ~ 2.5 M lines of code
- High performance computing architectures and switched fabrics
- Database development using MySQL and Oracle
- Network communications including TCP/IP, HTTP, SMTP, NTP, Ethernet, 802.x
- Wireless communications including Bluetooth, NFC, LTE, WiFi, CDMA, GPRS, 3G, GSM, and CDPD
- Textual and natural language processing in Python
- Enterprise network applications development using BSD sockets on Linux/Unix
- Audio and Video CODECs including Dolby, DBX, wavelet/JPEG2000, SMPTE 421M (VC-1), H.263, H.264, VP8, VP9, and WebM
- 8/16/32/64-bit microprocessor circuitry design

EMPLOYMENT EXPERIENCE

ONTRAK INC., Santa Monica, CA **2018 – 2021**

A healthcare provider that improves health and reduces the cost of care for people who suffer from the medical consequences of behavioral health conditions

VP and Chief Scientist of Deep Learning
- Led team in developing chronic condition models from database comprised of 4+ billion health plan claims records from 3.2 million patients for probabilities of demographics, chronic conditions, comorbidities, procedures, specialists and drugs
- Led team in developing TensorFlow based predictive models for forecasting health risk, ER/inpatient admit probability, motivation to change, and social determinants of health.
- Led team in developing the Opportunity Score metric for providing an intelligent summary of health plan member's chronic conditions, behavioral risk, and other factors and costs to be used in enrollment decisions.
- Developed outreach agent/care coach and physician pairing algorithms based on personas, specialties, demographics, and patient health history

- Developed LifeLine, a web-based graphical display for viewing a patient's profile comprising of chronic conditions intensity and costs over time.
- Developed Intensity Transform algorithm for determining a member's chronic condition intensity from health plan claims data.
- Developed NLP based classification system for categorizing 7,800 CPT codes according to major organs and body systems
- Developed NLP based classification system for categorizing 32,000+ ICD9 and ICD10 codes comprising 1650 categories for lifestyle and 10 major organs and body systems
- Recruited team of research scientists and data engineers

Principal Data Scientist
- Created data-pipeline for automatically processing health plan eligibility and claims files and transforming health plan member data into the Ontrak standard format. This process was formerly done manually by a team of 5 employees and required up to 2 weeks after receipt of health plan files. The data-pipeline process completes in less than 20 minutes and is fully automated.
- Developed neural-network based data mapper for automatically mapping incoming health plan data fields to Ontrak standard fields
- Defined Ontrak standard health plan data format for eligibility, medical and pharmacy data

APPLIED SCIENCES CORP, Colorado Springs, CO **2010 - Present**

Intellectual property consulting and brokerage services for numerous high-tech industry segments. Assertion target and prior art identification, reverse engineering, and expert witness services.

Principal
- Numerous litigation related expert engagements, *see Litigation Related Expert Services Engagements section.*
- Patent portfolio license broker for Parallel Networks
- Provided storage related portfolio mining and expert analysis for Teradata Corp.
- Exclusive broker for select high-value patent portfolios for Avaya and HP
- Developed BERT based analysis engine for creating concept maps of patent text allowing patents on similar technologies to be identified automatically
- Developed NLP based patent classification system utilizing home-grown neural net for categorizing patents by primary technology, system included 215 technologies central to client companies
- Developed multiuser web-based patent portfolio management system and patent acquisition database
- Designed custom intellectual property data mining and analytics systems for Apple and Teradata Corp
- Numerous (52) litigation related expert engagements

ALLIED SECURITY TRUST, Colorado Springs, CO **2008 – 2010**

Member directed trust for identifying and acquiring patents currently for sale that could pose a threat to member companies if acquired by an adversarial party. 28 member companies including Apple, Google, Samsung, Oracle, HP, Intel, IBM, Cisco, RIM, ARM, Sony, Motorola, Ericsson, Philips, Verizon, Comcast, Time Warner, SAP, Avaya, Philips and Kodak

Chief Technology Officer
- Directly supported the acquisition of over $45M in patent assets between Aug 2008 - Sept 2010
- Analyzed 200-600 patents per week along with all accompanying claim charts and other marketing materials to identify a match with member company's products
- Built close working relationships with the Chief Counsel and senior IP staff of all member companies
- Developed LSA based analysis engine for textually analyzing patent text using a Google-compatible document database index system for quickly identifying infringing products and prior art. This system was integrated into Google Patents!
- Developed NLP data mining tools for analyzing and identifying key technologies from patent text
- Built relationships with over 250 brokers and other patent sellers ensuring that the majority of all patents for sale were offered to AST
- Architect for web-based mission-critical patent asset tracking database, designed elastic search and patent analysis functions
- Developed numerous procedures and business models for dealing with very high patent volume including identifying, analyzing, classifying and cataloguing patent portfolios currently for sale
- Recruited and managed team of 15 subject matter experts to assist in patent analysis

PURPLE MOUNTAIN, LLC, Colorado Springs, CO **2007 – 2008**

Intellectual property consulting service providing patent usage evaluation, portfolio management and reverse engineering services

Founder and Chief Scientist
- Identified prior art on Tivo's Time Warp patent for EchoStar

- Performed reverse engineering and claim chart construction in support of licensing and litigation for Dish Networks against Sling Media's SlingBox including communications protocol and video CODEC (SIMPTE 421M)
- Consulting engineer for Dish Networks for in-home video streaming (placeshifting) using MPEG-4
- Evaluated large patent portfolios and specifically identified many unlicensed and quality patents and corresponding infringing products for NCR, Avaya, Qualcomm, and Haliburton
- Performed reverse engineering and/or claim chart construction in support of licensing and litigation for major law firms including Baker Botts and Greenberg Traurig

PURPLE MOUNTAIN LABS, Colorado Springs, CO **2005 – 2007**

Supercomputing and high-speed communications research and development company

Founder and Chief Architect

- Raised $400k startup and $600k second round private funding
- Led product development for compact massively parallel multi-core supercomputing architecture for Lockheed Martin for deployment on military radar, ballistic missile defense, and reconnaissance aircraft applications
- Designed and built 256 CPU quad-core MIPS64 based 2.7 TeraFLOP VITA-41 embedded super-computer implemented with InfiniBand data plane and 1Gb Ethernet control plane.
- Modified and extensively tested SUSE Linux 2.6 kernel for quad-core MIPS64
- Ported VISPL signal and image processing library library to Linux 2.6 for MIPS64 SIMD vector processor
- Ported MPI communications library to Linux 2.6 for MIPS64
- Ported Mellanox InfiniBand HCA Linux 2.6 device driver to MIPS64
- Delivered functional and benchmarked above described super-computing prototype to Lockheed Martin in 18 months from startup

TAEUS INTERNATIONAL, Colorado Springs, CO **2004 – 2005**

Provider of intellectual property evaluation and reverse engineering services with over 20,000 patent evaluations and a network of over 700 subject matter experts

Regional Director of Business Development

- Closed $600k in IP licensing related projects in first three months
- Established new key partnerships with major IP law firms including Holm, Roberts and Owen (HRO), Baker Botts, and Greenberg Traurig
- Developed and presented award winning licensing strategies at 2005 Licensing Executive Society conference.

Program Manager

- Responsible for managing reverse engineering (RE) projects and retaining appropriate subject matter experts (SME).
- Managed a team of 6 subject matter experts for RE projects for HP on many notebook computers including Acer, Gateway, Sony, Toshiba and others generating over 75 claim charts and over $700k in 5 weeks
- Managed a team of 4 subject matter experts for RE projects for HP on numerous iPaq clones by Dell, Toshiba, Philips, Mitac and others generating 35 claim charts and over $400k in 4 weeks

Subject Matter Expert – projects > $1M

- Performed RE and prepared claim charts on competing Java processor for Philips, US 5,937,193, 6,298,434, 6,349,377
- Performed 4 RE projects and prepared claim charts on processor clock adjustment for power conservation, US 6,490,688, 6,883,104 (Zelle, Hofmann, Voelbel, Mason & Gette, LLP)
- Performed RE and prepared claim charts on competing media player algorithms for Dolby Labs, US 4,790,016, 4,914,701, 5,235,671 (Farella Braun & Martel LLP)
- Performed RE and prepared claim charts on competing FPGA for Actel, US 6,160,420

DRS TECHNOLOGIES / CATALINA RESEARCH, Colorado Springs, CO **2001 – 2004**

Fortune 500 defense technology provider that primarily serves tier 1 defense contractors. Competes with Mercury Computer Systems, Curtiss Wright and GE Fanuc.

Systems Architect/Sr Software Engineer

- Developed VxWorks VSIPL signal and image processing library for PowerPC AltiVec vector processor, included FFTs, DCTs, and numerous FIR filters
- Conceived of and designed hardware and software architecture for PowerPC G4 and Dune Networks switched fabric-based TeraFLOP class massively parallel embedded computer for Lockheed Martin for deployment on US Navy Aegis class destroyer shipboard radar processing.
- Gave customer presentations and gathered requirements for above system from numerous tier 1 customers including multiple divisions of Lockheed Martin, Raytheon, and MITRE. Helped sales dept. close over $2.5M in preproduction orders.
- Developed software and built prototype VxWorks/VME Cheetah based signal processor of submarine direction finder project for Southwest Research Institute

- Developed software and built prototype VxWorks/VME Cheetah based signal processor for active RADAR project for Harris Corp Predator UAV
- Developed software and built prototype VxWorks/VME Cheetah based signal processor of satellite communication system measuring bandwidth and utilization for ITT IMPCS program
- Developed VxWorks signal processing butterfly algorithm library for company's Cheetah family of high-speed vector processors, included FFTs, DCTs, and numerous FIR filters
- Architect and team lead on software improvement initiative. Team converted, tested and documented 310k lines of legacy C source code from DOS to VxWorks on time.

NAVSYS, Colorado Springs, CO **1999 – 2001**

Global Positioning System research and development company.

Principal Engineer

- Identified technologies and equipment infringing companies' patents US 6,727,846, 5,379,224, 5,225,842
- Prepared claim charts, diagrams and other technical information enabling IP litigators to file lawsuits against Garmin, Magellan and SnapTrack (Qualcomm)
- Designed and built vehicle tracking prototype system based on Philips GPS module, Compaq iPaq, and satellite communications to dispatch center with Microsoft MapPoint for Coca Cola; wrote device software, and developed communications protocols
- Designed and built prototype SpotterSensor, a Naval munitions targeting system using proprietary GPS receiver, Leica laser range finder binoculars, and Teledyne fiber optic gyroscope to determine the exact location of objects viewed in binoculars; wrote device software, developed Kalman filters and communications protocols
- Developed and built prototype vehicle tracking systems based on Garmin GPS chipset and Novatel AMPS cellular modem with the tracking/mapping console - used ArcView GIS later converted to MS MapPoint; wrote software, developed cellular modem firmware, and communications protocols
- Led design and development on the Personal Guardian handheld emergency locator used company proprietary GPS TIDGET and Novatel CDPD modem module; wrote software, developed Kalman filters, communications protocols, and modem firmware
- Filed 4 patent apps regarding MEMS based GPS signal sensor

VIDEO DESIGN, Marietta, GA **1994 – 1999**

Contract electronic design firm specializing in digital video streaming and recording equipment and robotic controls.

Founder & President

- Designed and implemented CCIR-601 PC based closed circuit television monitoring and recording system, 10 prototypes were built and installed for Pac-Tel Cellular stores (now Verizon) and Stockholder's Systems, Inc. (now Checkfree Corp.) corporate campus
- Designed video database for archiving alarm activated video capture. Originally built using wavelet CODEC based on Analog Devices ADV601, later switched to H.263 using Creative Labs Video Blaster board.
- Provided design services to Optical Robotics Inc. for pipeline inspection camera, robot control systems and data logger. Included design of DVD recorder using proprietary file format and MJPEG video compression.

INTERFACE SOLUTIONS, Marietta, GA **1988 – 1994**

Contract electronic design firm specialized in microcontroller-based products.

Hardware Engineer

- Designed mainframe inkjet and laser printer IBM PC interface for Lexmark.
- Designed American Magnetics, Inc. compatible mag-stripe security card encoder.
- Designed credit card reader with IBM keyboard interface for First Data Corp.

EDUCATION:

Ph.D. Candidate, Machine Learning and Natural Language Processing, University of Colorado, Colorado Springs, CO
1993 Bachelor of Science in Computer Science - Southern College of Technology, Marietta, GA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Ryan Hardin
Examiner: Ajibade Akonai, Olumide
Application No.: 17/863,208
Group Art Unit: 3648
Filing Date: 12 July 2022
Docket No.: 0075652.00009
Title: EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS

Sent via email to Olumide.Ajibade-Akonai@uspto.gov December 15, 2022

INTERVIEW AGENDA

Dear Examiner Ajibade-Akonai,

During our interview on Tuesday, December 20th at 11:00am, we would like to discuss the prior art rejections under 35 U.S.C. 102 and the written description rejections under 35 U.S.C. 112(a).

To facilitate the discussion of the rejection of claim 15 under 35 U.S.C. 112(a), we submit herewith a declaration by Scott Andrew Denning (the "Denning Declaration") that was filed in *inter partes* reviews IPR2022-01327; IPR2022-01328; IPR2022-01329 challenging U.S. Patent No. 10,049,387 from which the presents application claims priority. Mr. Denning's Curriculum Vitae is also submitted herewith.

In particular, section V(C) and paragraphs 36 to 39 on pages 14 to 16; and section VII(B)(2) and paragraphs 93 to 104 on pages 46 to 53 of the Denning Declaration are relevant to the rejection of claim 15 under 35 U.S.C. 112(a).

It is noted that similar declarations were filed in *inter partes* reviews IPR2022-01330; IPR2022-01331; IPR2022-013332 challenging U.S. Patent No. 9,779, 418 and *inter partes* reviews IPR2022-01333; IPR2022-01334; IPR2022-013335 challenging U.S. Patent No. 10,984,447, but the information is essentially duplicative of the Denning Declaration submitted herewith and the Denning Declaration submitted herewith is representative of these other declarations.

Mr. Denning will also be joining the interview in case you have any questions in which his expertise would be helpful. Inventor Ryan Hardin will likewise participate. We look forward to speaking with you next Tuesday.

Best regards,

DAVIDSON, DAVIDSON & KAPPEL, LLC

By: Clint R. Mehall

(Reg. No. 62,380)

Davidson, Davidson & Kappel, LLC
589 Eighth Avenue
New York, New York 10018
(212) 736-1940

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

Case Numbers: IPR2022-01327; IPR2022-01328; IPR2022-01329

Challenged Patent: U.S. Patent No. 10,049,387

Filed: September 2, 2017

Issued: August 14, 2018

Inventor: Ryan Hardin and Andrew Hill

Title: Exclusive Delivery of Content Within Geographic Areas

Mail Stop PATENT BOARD, PTAB
Patent Trial and Appeal Board
U.S.P.T.O.
P.O. Box 1450
Alexandria, VA 22313-1450

I, Scott Andrew Denning, make this declaration in connection with the three petitions for *inter partes* review submitted by Petitioners Samsung Electronics Co. Ltd., Samsung Electronics America, and Google LLC against U.S. Patent No. 10,049,387. All statements made herein of my own knowledge are true, and all statements made herein based on information and belief are believed to be true. Although I am being compensated for my time in preparing this declaration, the opinions expressed herein are my own, and I have no stake in the outcome of this proceeding or any related litigation or administrative proceedings.

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VIII. JURAT 54

I. INTRODUCTION

1. I am making this declaration at the request of Patent Owners Ryan Hardin and Andrew Hill in the matter of the *Inter Partes* Review of U.S. Patent No. 10,049,387 ("the 387 patent") to Patent Owners. I understand that Petitioners Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. have been sued by Patent Owners in *Hardin et al. v. Samsung Elecs. Co., Ltd. et al.*, 2:21-cv-00290-JRG, ECF No. 1 (E.D. Tex. July 30, 2021), based on infringing three of Patent Owner's patents: U.S. Patent Nos. 9,779,418; 10,049,387; and 10,984,447 (collectively, "the IPR patents").

2. In preparing this declaration and forming the opinions expressed herein, I have considered the claims, specification, and prosecution histories of the IPR patents; the Petitions (including all materials cited therein) for the IPR patents; and all materials cited and discussed in this declaration. As part of my analysis for this Declaration, I have considered my own knowledge and experience, including my work and experience in mobile or location-based computing as described below.

II. QUALIFICATIONS AND COMPENSATION

3. I am currently employed as an independent computer expert and consultant. My background and qualifications are set forth in my curriculum vitae attached as EX-2002.

Home Depot - Exhibit 1026 - Page 156
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EX-2001.004

4. As set forth in my curriculum vitae, I have a Bachelor of Science in Computer Science and have completed all requirements for a Ph.D. in Computer Science except to defend my dissertation, which I expect to do soon. I have over twenty-seven years of professional experience in the areas of hardware design and software engineering, robotic controls, digital video equipment design, and global positioning system research and development, computer networking, security and software.

5. During that time, I have worked as a consultant, as an expert, as an engineer, as a software developer, as a manager, as a company executive, and as a forensic investigator. Specific computer-related technologies that I have worked with include compilers, programming languages, operating systems, networks, network devices such as routers and switches, internet, protocols, videoconferencing systems, computer hardware, and source code. In addition, my working experience includes developing software for, among other things, network data communications business applications, data management, database design, client/server, compilers, parsers, programming languages, user interfaces, real-time applications, artificial intelligence, utility programs, diagnostics, machine simulators, performance analyzers, EDI applications, inventory control, software auditing, robotic controls, video and audio streaming, and embedded systems. I have designed and developed, as well as managed and assisted in the design and

development of, computer hardware and software systems. Some of my clients have been computer software companies, including IBM, Google, and Apple.

6. I have extensive engineering experience with the technologies disclosed in the IPR patents' specification and claims including: content delivery platforms, mobile device software development, perimeters defining geographic locations, and mobile device location determination.

7. Specifically, from 1999 to 2002 while I was employed by Navsys Corp, I was principal engineer for the LocatorNET program. I designed and supported handheld and vehicle mounted personal emergency locators and a network of servers that determined the location of the devices and managed the dispatch of help to the users of the devices. This system utilized raw satellite data recorded by the mobile devices and sent to the servers for a determination of the device's location. Additionally, this system included a home location register (HLR), a visitor location register (VLR), and other predefined geographic perimeters to aid in the rapid determination of a user's location.

8. Further, I assumed development of a GPS phone product line from the team at Navsys that designed the first GPS cellphone (Mayday), which is now on display in the Smithsonian Institute. I also designed vehicle and asset tracking systems for rental cars, shipping containers, and fleet vehicles. One example of such was for Coca Cola service trucks for servicing soda fountains in restaurants

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and convenience stores. The trucks were dispatched to stores needing service from a central location. The dispatch algorithm was optimized to dispatch the closest service truck with the shortest queue while limiting them to geometric areas defined throughout the service areas. Realtime updates of the vehicle's status and location were provided to the dispatch center.

9. I also was the principal engineer on the Spotter Sensor, a system designed for military forward observers that determined the exact location of objects viewed within the view finder. This system utilized a military grade GPS receiver, Leica laser rangefinder binoculars and a fiber optic gyroscope to determine location. Once the location was determined it was automatically transmitted to a munitions firing center.

10. For each of the above systems I assembled the prototype units including packaging and connections, wrote firmware for the sensors, designed the communications protocols between the devices and the servers they communicated with, and wrote much of the server applications software.

11. A copy of my complete curriculum vitae, which includes a list of publications I have authored in the past ten years, is found at EX-2002. A list of cases in which I have testified as an expert in deposition or trial in the past four years is also included with EX-2002.

12. I am being compensated in this matter at my standard consulting hourly rate of $650 per hour. My compensation is not dependent on the substance of my statements in this Declaration.

13. I am over the age of 18 and am competent to write this Declaration. I have personal knowledge, or have developed knowledge, of the technologies discussed in this declaration based upon my education, training, or experience with the matters discussed herein.

III. RELEVANT LEGAL PRINCIPLES

14. Counsel for Patent Owners has informed me of legal principles that apply in this proceeding.

15. I understand that a patent can be entitled to priority to an earlier filed patent. To do so, I further understand that the earlier-filed patent must properly enable and support by the written description the claimed inventions in the later-filed patent. I also understand that the later-filed patent is afforded a filing date of the earlier-filed patent provided it meets these requirements.

16. I understand that a priority application needs to provide sufficient written description support for the claimed invention. I further understand that the test for sufficiency of support in an application is not the presence or absence of literal support in the specification for the claim language, but instead, it is whether the disclosure of the application relied upon reasonably conveys to a person of

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ordinary skill in the art ("POSITA") that the inventor had possession of the later claimed subject matter.

17. I understand that the disclosure must be viewed from the perspective of a POSITA and, as such, the disclosure does not need to restate the claims verbatim. I further understand that there is no requirement for an applicant to repeat what is readily known in the art. Instead, the applicant must adequately describe improvements to the art.

18. I understand that a claim is invalid as obvious under 35 U.S.C. § 103 if the differences between the subject matter sought to be patented and the prior art are such that the subject matter of the claim as a whole would have been obvious at the time of the invention to a person having ordinary skill in the art.

19. I have been informed that the following factors are used to determine whether or not the claimed subject matter would have been obvious: (i) the scope and content of the prior art; (ii) the differences between the prior art and the claimed invention; (iii) the level of ordinary skill in the field of the invention; and (iv) any relevant objective considerations of non-obviousness.

20. I also understand that a party asserting obviousness based on a combination of prior art references must demonstrate that one of ordinary skill in the art would have been motivated to combine the teachings of those references to achieve the claimed invention and that the skilled artisan would have had a

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reasonable expectation of success in doing so. It is my understanding that it is not enough to show that one skilled in the art could combine elements of multiple references, but instead there must be some reason that would have prompted a person of ordinary skill in the art to combine the elements in the way the claimed invention does. I understand that there must be some reasoned explanation as to why one of ordinary skill in the art would combine the references.

21. I understand that a combination of references would not have been obvious if the alleged modification(s) to be made to the reference(s) would have been inconsistent with the reference's stated goals or would have rendered the combination inoperable for its intended purpose. I further understand that for something to have been obvious, the party asserting obviousness must explain why a POSITA would have selected components for combination in the manner claimed.

22. It is also my understanding that obviousness cannot be based on a hindsight combination of components selected from prior art references. I also understand that an invention would not have been obvious simply because all of the elements of the invention may have been known separately in the prior art.

IV. PERSON OF ORDINARY SKILL IN THE ART ("POSITA")

23. Counsel for Patent Owners has informed me that a POSITA is a hypothetical person who is presumed to have known all of the relevant art at the

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time of the invention. In my opinion, the relevant field of art for the IPR patents is that of mobile or location-based computing.

24. For the purpose of this Declaration, and based on my opinions herein, the time of invention for the IPR patents is May 2009. However, I understand that the conception dates of the inventions may have been earlier than that date. Any earlier conception date does not alter my opinion regarding a person of ordinary skill in the art. My opinions likewise would not change if the priority date for the patent was determined to be later than May 2009.

25. I have been informed by counsel for Patent Owners that the person of ordinary skill is generally familiar with the type of problems encountered in the field and the prior art solutions to those problems and possesses an ordinary level of creativity.

26. I understand that Petitioners' expert, Mr. Williams, opined that a person of ordinary skill in the art "would have had at least a bachelor's degree in computer science or a comparable field of study and at least five years of professional experience in mobile or location-based computing or other relevant academic experience." EX-1003, Williams Decl., ¶ 40. For purposes of this declaration, I apply Mr. Williams' definition of a POSITA. As detailed in Section II above, I was at least a person of ordinary skill as of May 2009, and believe I can offer opinions from the perspective of a POSITA in that time frame.

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V. BACKGROUND OF THE TECHNOLOGY

27. All the IPR patents share the same specification and their Abstracts state the following:

> Application developers can request to have their applications registered for use with a content delivery platform. The operator of the content delivery platform establishes perimeters defining geographic areas, and maintains records reserving particular areas for delivery of content associated with particular sponsors. Registered applications running on mobile devices can request content from the content delivery platform. Based at least in part on the request, the content delivery platform can identify a target location, which may be the location of the mobile device, or some other location indicated in the request. A mobile device can be provided content based on the relationship of the target location to the geographic areas, so that a registered application running on a mobile device with a target location contained within a geographic area assigned to a particular sponsor will receive content related to that sponsor.

387 patent (EX-1001) at Abstract; 418 patent (EX-1015) at Abstract; 447 patent (EX-2015) at Abstract.

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28. The earliest application in the family that resulted in the issuance of the present patent was filed on May 1, 2009 as App. No. 12/434,094 ("the 094 application"). (EX-1008). The 387 patent claims priority to the 094 application. EX-1001, Face Page. My citations to the specification herein will be to the 094 application, unless noted otherwise.

29. Broadly, the IPR patents are directed at providing relevant advertising or other content to application programs running on mobile devices based on the geographic location of the mobile device.

> Various embodiments of the present disclosure provide for delivering content, such as advertising, to registered applications being run on any of various mobile electronic devices configured to be readily moved, carried, or otherwise transported between different various geographic areas defined by parameters.

EX-1008 at 019, ¶ 0017.

30. As one exemplary way of delivering advertisements and content to mobile devices, the IPR patents use a location-based technology now commonly called *geofencing*. I provide below a description of the state of the art for geofencing technology and other claimed features around 2009.

A. Geofencing Technology

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31. Geofencing technology dates to the early 1990s. One of the earlier uses of geofencing was called enhanced 911 (E911), which was used to help determine the location of mobile phone callers when they dialed 911. Other early uses of geofencing technology helped track humans, pets, vehicles, commercial assets, etc. *See* EX-1024 (disclosing commercially available geofencing system in 2003); EX-1023 (2002 paper teaching location-based notifications, which sends a message to "wireless subscribers when they are determined to be in a particular geographic area").

B. Applications on Mobile Devices were Known to Make Requests for Geographic Data

32. By 2009, it was well-known to a POSITA that applications on mobile devices made requests for geographic data. The disclosures below demonstrate as much.

33. U.S. Patent No. 7,847,729 to Tysowski et al. ("Tysowski"), which was filed on January 28, 2008 and is titled *GPS Pre-Acquisition for Geotagging Digital Photos*, shows that it was known prior to 2009 that applications running on mobile devices may request geographic data. EX-2011. Specifically, Tysowski discloses that a camera application running on a mobile device may make location requests to the API and GPS driver of the mobile device:

> In normal operation of this particular implementation of the technology, ephemeris data is downloaded pre-emptively based on

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any camera-related user activity, such as launching the camera application. ***Launching the camera application 160 would, for example, trigger a request into the API 152 (e.g. Java JSR 179) for GPS data***. This request would be logged by a the user activity monitoring application 170. The API 152 preferably resides between the operating system 150 and the camera application 160 so that all GPS requests go through this API. ***All location requests from the camera application 160 to the API 152 go to the GPS driver 154 via the OS 150***, as shown in FIG. 5, which then communicates with the GPS chipset 110. The API is, in this example, Java JSR 179. JSR 179 ("Location API") is a specification defining a common API for retrieving location information on a variety of GPS-embedded mobile phones, PDAs, handhelds and other such devices. *Id.* [9:6-22];

[A] user of this device 100 can activate the camera by manipulating the keyboard 116 or the thumbwheel/trackball 114 to launch a camera application. *Id.* [7:66-66]; *see also* Figure 3;

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> [T]he wireless communications device 100 can communicate over voice and data channels with a base station 210 that is part of a wireless network 200. *Id.* [6:48-51]; *see also id.*, Figure 2.)

The above disclosures show that, as early as 2008, it was well-known to a POSITA that applications on mobile devices may make requests for geographic data. *Id.*, *Abstract*.

34. Salmre (EX-1006) describes another example of an application on a mobile device requesting geographic data. Specifically, Salmre describes an application (*e.g.*, application 330 associated with location manager 320) "pulling" object information for rendering on geographical maps. Salmre states "an application may have a timer that periodically 'pulls' information and renders a new map. So in addition to 'push' event-driven responses, the application can also 'pull' date and take action." EX-1006, ¶ 0028; *see also* Fig. 3. Mr. Williams likewise acknowledges that Salmre's location manager and application may be implemented on a mobile device. EX-1003, ¶ 127 ("A POSA would recognize … implementing … on the mobile device[] … Salmre's location manager."). Accordingly, Salmre shows that it was well-known to a POSITA that applications running on a mobile device can request geographic data, such as information rendering geographic maps.

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35. The above disclosures all demonstrate that prior to 2009 it was well-known to a POSITA an application running on a mobile device may request geographic data.

C. A Mobile Device Was Known to Implement a Client-Server relationship

36. Well before 2009, it was also commonly known to a POSITA that a client-server relationship was capable of existing and functioning locally on a mobile device. The disclosures below demonstrate as much.

37. For example, the paper "Client-Server Computing in Mobile Environments" Jin Jing et al. ("Jing") was published in 1999 in the *ACM Computing Surveys* journal. EX-2010. Jing teaches that in mobile environments, the distinction between clients and servers may have to be "temporarily blurred," for example, to "cope with uncertain connectivity requires clients to sometimes emulate the functions of a server." *Id.* at .012-013. Jing notes that in extreme cases, "mobile clients will be forced to work under the *disconnected* mode." *Id.* at .014 (emphasis in original). Jing discloses that a "full client architecture can be used to effectively support the disconnected or weakly connected clients…. The full client architecture supports the emulation of functions of servers at the client host so that applications can be executed without fully connecting to remote servers." *Id.*; *see*

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also id. at .013, Fig. 8 (showing an "extended client-server model" where a mobile device contains both client code and server code):

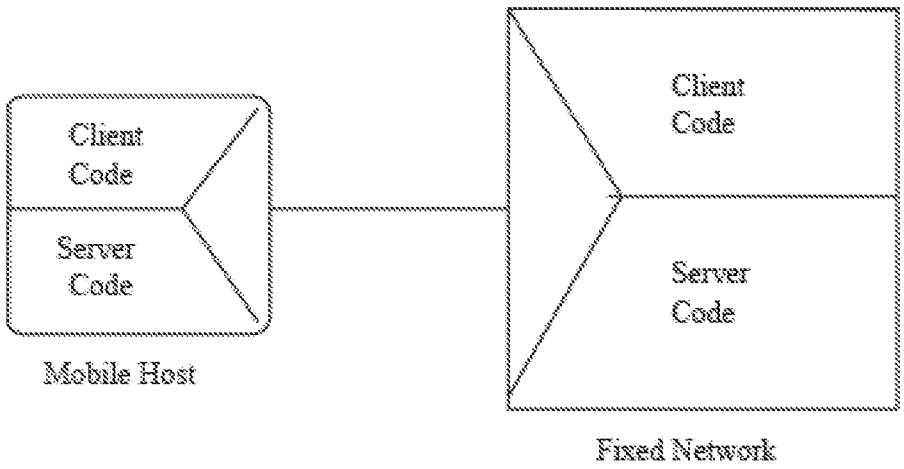


Figure 8. Extended client-server model.

Jing, Fig. 8 (EX-2010)

Accordingly, Jing shows that it was well-known to a POSITA years prior to 2009 that a client-server relationship may be implemented on a mobile device locally in order to limit or avoid the need to always connect to external servers in order for the mobile device to function.

38. U.S. Pub. No. 2009/0043657 was published February 12, 2009 and is titled *System and Methods for Selecting Advertisements Based on Caller Identifier Information* ("Swift"). Swift describes another example of a mobile device implementing a client-server relationship. EX-2012. Swift is directed to implementing web advertisements on a mobile device. *Id.*, *Abstract*. In describing

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one way to do so, Swift discloses that mobile devices may let web applications run locally by "maintaining a client-server programming model":

> [I]t is possible to let web applications run locally on the computing device 202 (e.g., mobile device or desktop computer) without outside server dependencies to be able to access local services and maintain a client-server programming model based on web programming techniques and with web security models intact.

Id., ¶ 0081. This is another example demonstrating that by May 2009 it was known to POSITA that a client-server relationship may be implemented locally on a mobile device.

39. Based on the above disclosures, it was well-known to a skilled artisan that a mobile device may implement a client-server relationship in the mobile device by May 2009.

VI. THE IPR PATENTS

40. In this Section, I consider the disclosure in the IPR patents along with relevant information from the prosecution history of those patents and other patents in the family.

A. Background

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41. The IPR patents share a common specification and are generally directed at providing relevant advertising or other content to application programs running on mobile devices based on the geographic location of the mobile device:

> Various embodiments of the present disclosure provide for delivering content, such as advertising, to registered applications being run on any of various mobile electronic devices configured to be readily moved, carried, or otherwise transported between different various geographic areas defined by parameters.

EX-1008 at 019, ¶ 0017.

42. The IPR patents are directed towards providing relevant content to application programs running on mobile devices based on the geographic location of the mobile device. *Id.* at 019, ¶ 0017 ("Various embodiments of the present disclosure provide for delivering content, such as advertising, to registered applications being run on any of various mobile electronic devices configured to be readily moved, carried, or otherwise transported between different various geographic areas defined by parameters.").

43. In general, geographic areas may be reserved with, for example, a content delivery platform/server by establishing perimeters around the areas of interest. *Id.* at 028-029, ¶ 0044, *id.* at 033, ¶ 0058. The "perimeters established can be based on map features, such as streets, rivers, landmarks, or any of the other

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various map features. The perimeters can also be defined by latitude and longitude, or various geometric constructs having a given relative position to either a point location, a map location, a physical address, other otherwise." *Id.* at 029, ¶ 0045; *see*, *e.g.*, *id.* at 005, Fig. 3 (depicting a graph showing various reserved geographic areas); *id.* at 025, ¶ 0035.

44. Application programs running on a mobile device are registered with the content delivery platform/server. *Id.* at 030, ¶ 0050. The registered application programs originate from and are provided to the mobile device from multiple sources, including from an application developer via a developer platform, a content provider via a content delivery platform, one or more sponsors who provide content or advertisements to the mobile device, and/or another desired delivery mechanism. *Id.* at 020, ¶ 0019.

45. A registered application program on the mobile device may make a request to, for example, a content delivery platform/server for content to be provided to the application program and content may then be displayed on the mobile device. *Id.* at 017, ¶ 0005. The current location of the mobile device may be determined from, e.g., GPS data or other means. *Id.* at 022, ¶ 0024. If it is determined, for example, that the mobile device has entered one of the reserved geographic areas, then the content delivered to application program may be related to the entity that reserved the geographic area in which the mobile device is

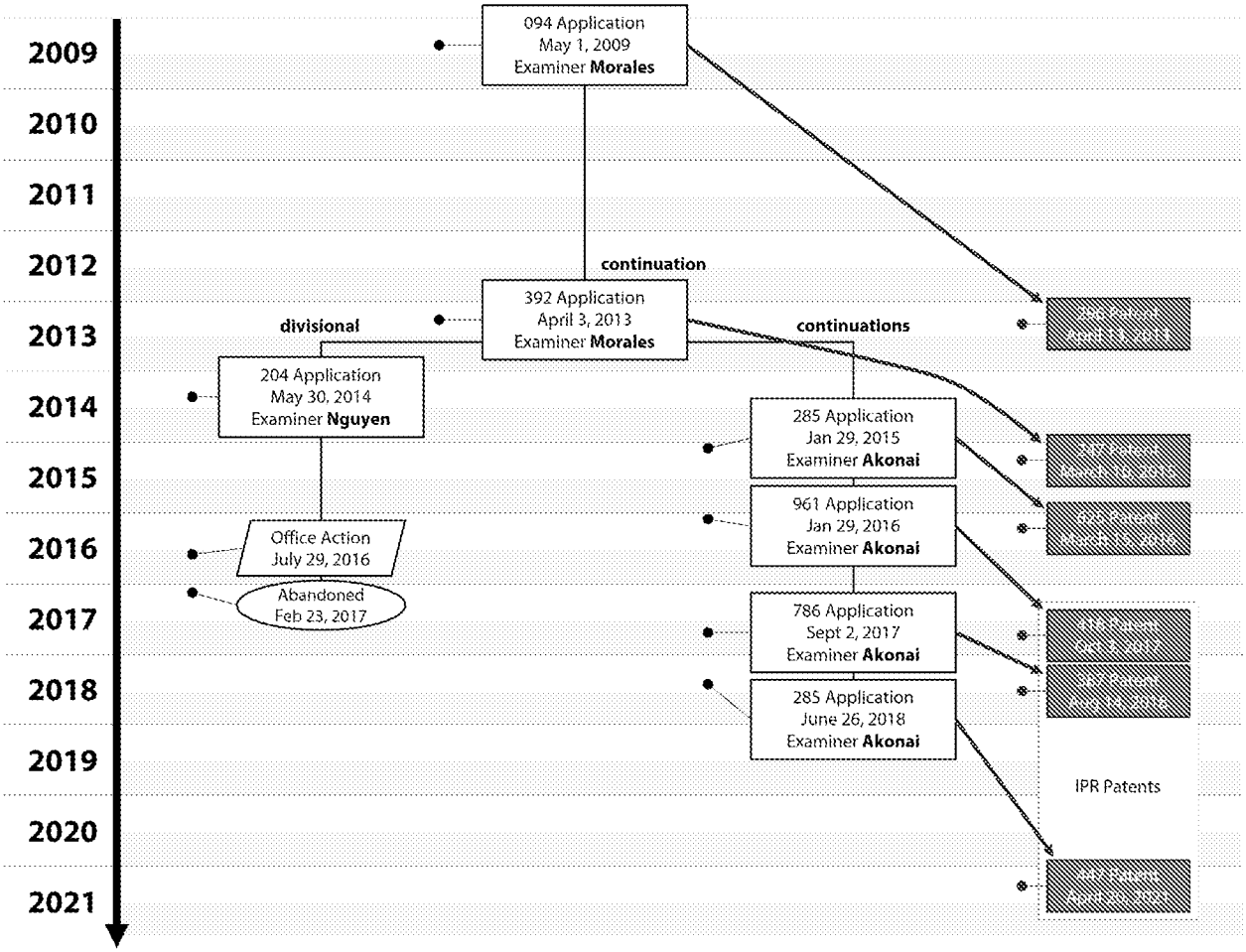
presently located. *Id.* at 020, ¶ 0020 (explaining that the request to reserve a geographic area can include a request for "exclusive delivery of content to mobile devices running any registered application with given geographic areas, or for content to be delivered to particular registered applications"); *id.* at 028-29, ¶ 0044 (explaining that reserved geographic areas are reserved for delivery of a sponsor's own content as "controlled by the sponsor"); *id.* at 021, ¶ 0023; *id.* at 022-023, ¶ 0026 ("[T]he user of wireless device 177 will receive advertisements related to sponsor B from within a registered application"); *id.* at 026, ¶ 0037.

B. The Prosecution History

46. I understand from Patent Owners' attorneys that the prosecution histories of the IPR patents and related patents may inform a POSITA as to the written description issues raised by Petitioners. I also recognize that Mr. Williams has included his own overview of the prosecution histories. *See* Ex. 1003, ¶¶ 73-101. I am not a patent lawyer and do not opine on the legal significance of any of the events taking place during the prosecution of the patents. Instead, in my review of the prosecution histories, I offer my opinions on how I believe a POSITA would understand some of the statements the Examiners and Inventors made during prosecution.

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47. Patent Owners' counsel has provided me with a chronology of the various applications, which has been annotated to accurately reflect when certain prosecution events occurred:



IPR Patents Prosecution History: Time Line

1. The May 1, 2009 Application

48. I understand that inventors Ryan Hardin and Andrew Hill filed their first application on May 1, 2009 (12/434,094) ("the 094 application") (EX-1008). The 094 application was examined by Examiner Benjamin Morales Fernandez. *See*

EX-1008, at 128, 142. Based on my review of the 094 application, it appears that Examiner Morales[1] extensively considered the invention during prosecution of the 094 application.

49. For example, Examiner Morales initially rejected the claims in two different Office Actions. *Id.* at 064-072, 128-142. These Office actions included lengthy analysis and multiple rejections of the claims. *Id.* at 064-072, 128-142. It also appears, from reviewing Examiner Morales's search notes and strategy, that he conducted a comprehensive search for prior art. *Id.* at 075-103, 143-160. Further, in an "Applicant-Initiated Interview Summary," Examiner Morales noted that the inventors explained the "invention but the claims do[] not seem to express what the invention is as [was] described…." *Id.* at 163. Examiner Morales suggested the inventors amend the claims to accurately capture the invention. *Id.* In my opinion, this reflects that Examiner Morales most likely understood both the scope of the invention as well as how it was disclosed in the application.

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[1] The Examiner also used the name Benjamin Morales in several office actions. *Compare* Ex. 1008 at 128, 142 (identifying the Examiner as "Benjamin Morales Fernandez") to *id.* at 129, 141 (identified as "Benjamin Morales"). For the remainder of my declaration, I will identify him as Examiner Morales.

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50. In response to this interview, I understand that the inventors amended the claims. EX-1008 at 165-176. Examiner Morales then rejected those claims in another Office Action that included what appears to me to be additional extensive prior art searching. *Id.* at 190-227. The inventors again responded by amending the claims, which Examiner Morales allowed after providing what I understand is known as an "Examiner's amendment." *Id.* at 249-261. This resulted in U.S. Patent No. 8,433,296 ("the 296 patent"). EX-1007.

51. In my opinion, this detailed examination history, lasting over four years as described above, reflects that Examiner Morales likely developed a thorough understanding of the application and the claims.

2. The April 3, 2013 Continuation Application

52. Before the 296 patent issued, the inventors filed what I understand is a continuation application, no. 13/856,392 ("the 392 application") on April 3, 2013. EX-1010. Examiner Morales examined this application as well. *See* EX-1010 at 072-073. In the first Office Action, Examiner Morales rejected the claims, including for what I understand is called "double patenting" in view of the previously issued 296 patent. EX-1010 at 072-093.

53. In response, on April 19, 2014 the inventors amended the claims. *Id.* at 113-134. I understand that claim 1 was amended to include the limitation

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"receiving, from one or more sponsors, at least one request to obtain an interest in a designated geographic area." *Id.* at 114.

54. In addition, the inventors amended dependent claim 4 to add the limitation that "one or more sponsors is at least one of the one or more instances of the application program." *Id.* at 116. The language used in this claim would be familiar to a person with computer programming experience, as the term "instance" has a well-known meaning: "an object, in object-oriented programming, in relation to the class to which it belongs. For example, an object myList that belongs to a class List is an instance of the class List." EX-2008.011 (*Microsoft Computer Dictionary*, 5th Ed. (Microsoft Press 2002)). For this amendment, the inventors informed Examiner Morales that it "finds support in the specification of Applicant's as-filed application at least at paragraphs 0019, 0067 and 0068." EX-1010 at 131.

55. On May 21, 2014, Examiner Morales issued an Office Action that I understand contained what is known as a "restriction" requirement. *Id.* at 148-152. In response, the inventors submitted a follow-on Amendment to the 392 application on May 27, 2014 (*id.* at 154-175). In this Amendment, the inventors amended the independent claims to include "receiving, ***from the one or application programs***, at least one request to obtain an interest in a designated geographic area." *See id.* at 155 (emphasis added). The inventors amended

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dependent claim 4 to recite that the "one or more sponsors is at least one of the one more registered application programs." *Id.* at 157. With these amendments, I understand the inventors were presenting claims directed toward the aspect of the invention wherein the application program requests an interest in a designated geographic area, for example, on behalf of the sponsor.

56. Along with this amendment, the inventors informed Examiner Morales that the limitation "receiving, from the one or application programs, at least one request to obtain an interest in a designated geographic area" found support in the specification of the application at least at paragraphs 0009, 0018, 0021, 0044 and 0048. *Id.* at 167. With respect to dependent claim 4, the inventors again pointed the Examiner to "at least … paragraphs 0019, 0067 and 0068." *Id.* at 172.

57. On September 11, 2014, Examiner Morales issued another lengthy Office Action rejecting the amended claims. *Id.* at 179-192. This rejection included what I understand are known as "indefiniteness" rejections,[2] and another

[2] Examiner Morales rejected the limitation "after it is determined that a target location has entered the designated geographic area" as indefinite because it was "unclear how a location … can enter an area…." *Id.* at 181. I believe that this

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obviousness-type double-patenting rejection based on the 296 patent. *Id.* In the double-patenting rejection, Examiner Morales identified the limitations regarding the "application program requesting to reserve an interest in a designated geographic area" and the claim 4 limitation regarding the sponsor being one of the registered application programs. *See id.* at 183-189.

58. Despite Examiner Morales's focus on these limitations, I note that Examiner Morales did not reject these claims for failing to comply with the written description requirement, nor did he express any concern that these limitations (the "application program requesting to reserve an interest in a designated geographic area" and the "one or more sponsors is at least one of the one more registered application programs") failed to comply with the written description requirement.

59. In response to this rejection, the inventors filed an Amendment on October 7, 2014 amending the claims and responding to the rejections. *Id.* at 208-219. Examiner Morales issued a Notice of Allowance on October 28, 2014. *Id.* at 223-230. In it, he stated that one of the reasons for allowing the claims was because none of the prior art of record disclosed or rendered obvious "receiving, from the one or more of the registered application programs, at least one request to

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issue, which the inventors fixed in a subsequent amendment (*id.* at 217-218), is unrelated to the written description issue raised in the IPRs.

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obtain an interest in a designated geographic area…." *Id.* at 228-229 (emphasis in original). U.S. Patent No. 8,977,247 ("the 247 patent") then issued on March 10, 2015. EX-1009.

60. In my opinion there are several significant events worth highlighting concerning Examiner Morales's actions. Specifically, Examiner Morales allowed the claims discussed above only after: (1) considering the scope and content of the inventors' application over the course of nearly five and one-half years of prosecution of the 094 and 392 applications; (2) issuing numerous rejections over the course of numerous Office Actions between the 094 and 392 applications; and (3) highlighting the claim language in question in both a double-patenting rejection and in a Notice of Allowance. In my opinion, it is clear that Examiner Morales allowed claims containing the materially identical limitation to that challenged by Petitioners—that is, an application program requesting to reserve or obtain an interest in a designated geographic area. Also, during this lengthy prosecution history, I did not find any instance of Examiner Morales rejecting the challenged limitations for lack of written description support.

3. The May 30, 2014 Divisional Application

61. I understand that before the 247 patent issued, the inventors filed two additional applications. One of these applications was application no. 14/292,204 ("the 204 application") (*see* EX-1014) filed on May 30, 2014, which I understand

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was identified as a "divisional" of the 392 application. *Id.* at 005. About eight months later, the inventors also filed application no. 14/608,285 ("the 285 application") (EX-1012) on January 29, 2015, which was identified as a continuation of the 392 application. These two applications are addressed in the subsequent two sections.

62. The 204 application was filed nine days after Examiner Morales issued his May 21, 2014 Office Action containing the "restriction" requirement in the 392 application. *See* EX-1010 at 113-134, 148-152. The claims in the divisional 204 application are the same as those in the April 19, 2014 Amendment in the 392 application that prompted the restriction requirement. *Compare* EX-1014 at 049-055 to EX-1010 at 114-124. Accordingly, independent claim 1 included the limitation "receiving, from one or more sponsors, at least one request to obtain an interest in a designated geographic area," and dependent claim 4 recited that the "one or more sponsors is at least one of the one or more instances of the application program." EX-1014 at 049-055.

63. The 204 application was assigned to a different examiner than the previous two applications—Examiner Thuy Nguyen. On July 29, 2016, Examiner Nguyen issued an Office Action rejecting the claims. *Id.* at 082-103. Based on my review, I understand that Examiner Nguyen rejected the claims for several reasons, including a rejection of some of the claims based on indefiniteness grounds. In my

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review of this Office Action, however, I did not see that any of the claims were rejected for failing to comply with the written description requirement.

64. Regarding the indefiniteness rejection, Examiner Nguyen stated that claim 4 and the other dependent claims requiring "the one or more sponsors is at least one of the one or more instances of the application program" was "indefinite/unclear" because it appeared to be "inconsistent" with the application. EX-1014 at 090. Examiner Nguyen stated that the "application program" was "merely software that is running on the user mobile devices," *id.* at 090, and as such it was "unclear how the one or more sponsors/advertisers is one of the application program[s]." *Id.* at 91.

65. In my opinion, Examiner Nguyen appears to have misunderstood both the language of claim 4 and the specification. In particular, Examiner Nguyen stated that the "application program" was "merely software that is running on the user mobile devices," *id.* at 090, and as such it was "unclear how the one or more sponsors/advertisers is one of the application program[s]." *Id.* at 91. This comment shows that there is a potential misunderstanding of both the language of claim 4 and the specification. For example, claim 4 recites that the "one or more sponsors is at least one of the one or more instances of the application program." EX-1014 at 050. As I explained previously, a POSITA would understand that an "instance" has a well-known meaning. EX-2008.011.

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66. I understand, and I believe a POSITA would have understood, that claim 4 is directed to at least one of the application programs on the mobile device originating from and/or representing at least one of the sponsors. In my opinion, this is supported by the specification. The specification discloses that the "application programs" on the mobile devices may come from multiple sources, ***including*** the sponsors. It teaches that "***a registered application program is provided to mobile devices by*** developer platform 108, content delivery platform 112, ***one of sponsor A 121, sponsor C 123, or sponsor B 125***, or by another desired delivery mechanism." EX-1008 at 020, ¶ 0019 (emphasis added).

67. In considering the then-pending claims, I believe that claim 1 has no limitation regarding the source of the registered application programs on the mobile device. EX-1014 at 049. Claim 4 would be understood to narrow claim 1 by requiring that the source of at least one of the application programs is at least one of the sponsors. This is consistent with the portion of the specification quoted above.

68. Examiner Nguyen appeared to believe that the specification taught that the application program on the mobile device could come only from the application developer platform and nowhere else. EX-1014 at 090 ("… applicant program is registered by the Applicant developer/Applicant platform 108 but not

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the Sponsors…."). In my opinion, the portion of the specification quoted above contradicts that view.

69. I also note that while Examiner Nguyen quoted portions of the application in making the indefiniteness rejection, he seems to have left out important passages of the specification in his analysis. Specifically, Examiner Nguyen quoted a portion of paragraph 0020 of the specification (paragraph 0019 in the originally-filed application) in his indefiniteness rejection (*see* EX-1014 at 090), but he left out the first sentence in its entirety, portions of which I emphasize below:

> In some embodiments, a ***registered application program is provided to mobile devices*** by developer platform 108, content delivery platform 112, ***one of sponsor A 121, sponsor C 123, or sponsor B 125,*** or by another desired delivery mechanism. In some embodiments, registering the application program with content delivery platform 112 allows developer 108 to receive revenue from sponsor A 121, sponsor C 123, or sponsor B 125 for content displayed on a mobile device located within, or in proximity to, a geographical area reserved by one or more of the sponsors.

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EX-1010 at 008, ¶ 0020 (emphasis added).[3] It is my opinion that a POSITA reviewing this passage would understand that the registered application programs on the mobile device may come from multiple different sources, including developers via the developer platform, content providers via the content delivery platform, and/or one or more sponsors.

70. In addition, Examiner Nguyen stated that it was "unclear how the one or more sponsors/advertisers is one of the application programs (merely software that is running on the user mobile devices)." EX-1014 at 091. Based on this statement, it appears that Examiner Nguyen was under the belief that "sponsors" were limited to physical entities or persons. However, I believe that the specification's disclosures make it clear that the sponsors may be ***represented by*** their application programs, and as such are able to control the functionality of the application programs. For example, paragraph 0019 (paragraph 0018 in the originally-filed application) states that the inventive system includes "***systems or individuals*** operating under control of sponsor A 121, sponsor C 123, and sponsor

[3] Examiner Nguyen's citations are to the specification filed as part of the 392 application. The same paragraph is identified as paragraph 0019 in the May 1, 2009 application. *See* EX-1008 at 020, ¶ 0019.

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B 125." EX-1014 at 031, ¶ [0019] (emphasis added).[4] This is consistent with other portions of the specification teaching that the entire invention may be implemented in a combination of hardware and/or software. *Id.* at ¶¶ 0064, 0067, 0068. A "system" may be implemented in software, such as an application program. EX-2008.014 (*Microsoft Computer Dictionary*). Accordingly, in my opinion the specification sufficiently discloses that an application program located on the mobile device may be under control of the "sponsor" as the specification teaches.

71. Accordingly, in my opinion a POSITA would have understood that the filed application provides sufficient written description support for claim 4 of the 204 application—which Examiner Nguyen did not reject for failing to comply with the written description requirement in any event.

72. From this record, in my opinion the following points are clear: (1) Examiner Nguyen never rejected any of the claims of the 204 application as failing to comply with the written description requirement; and (2) Examiner Nguyen's indefiniteness rejection of claim 4 shows an apparent misunderstanding of the scope of the claims and the teachings of the specification.

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[4] Examiner Nguyen quoted a portion of paragraph [0019] as part of the indefiniteness rejection, but omitted this sentence in doing so. EX-1014 at 090.

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4. The January 29, 2015 Continuation Application

73. On January 29, 2015, the inventors filed continuation application no. 14/608,285 ("the 285 application") (EX-1012), which was a continuation of the 392 application. This application presented claims that included as limitations, "receiving, from the registered application program, a request to obtain an interest in the designated geographic area" (e.g., claim 1) and "wherein the registered application program is the at least one of the one or more sponsors" (dependent claim 9). *Id.* at 047-048. This application was examined by a third examiner: Examiner Olumide Akonai. Examiner Akonai issued a Notice of Allowance of the pending claims on November 6, 2015 (*id.* at 073-079)—which is before the first rejection by Examiner Nguyen on July 29, 2016. This application issued as U.S. Patent No. 9,286,625 ("the 625 patent") on March 15, 2016. (EX-1011).

5. The January 29, 2016 Continuation Application

74. Before the 625 patent issued, the inventors filed on January 29, 2016 another continuation, application no. 15/009,961 ("the 961 application"). EX-1016. Prior to examination, the inventors submitted a Preliminary Amendment on July 24, 2016 (*id.* at 085-117). Examiner Akonai was also in charge of examining the 961 application. He issued his first Office Action on February 27, 2017. EX-1016 at 127. At the time of the first Office Action, pending claims 21-40 recited "providing, on a mobile device, an electronic data processing method, made

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available for use by one or more distinct application programs operating on the mobile device" and "receiving, on the mobile device via a first call to the electronic data processing method, from a first particular application program during its execution on the mobile device, a first request for a reservation for a first particular designed geographic area of interest…." *Id.* at 087.

75. Examiner Akonai's February 27, 2017 Office Action appears to include a thorough analysis of the claims, as reflected by his rejections. *Id.* at 127-140. In particular, Examiner Akonai rejected all pending claims (21-40) for "failing to comply with the written description requirement. The claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor … at the time the application was filed, had possession of the claimed invention." *Id.* at 130. Examiner Akonai listed several limitations in pending claim 21 that were allegedly missing from the specification. *Id.* at 130-132. The table below shows the relevant then-pending claim language and Examiner Akonai's identification of terms allegedly lacking written description support:

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Pending Claim Language	Examiner Akonai's Written Description Rejection
From representative independent claim 21 (EX-1016 at 086-092):	"[The pending independent claims] recite the following limitations which are not taught or suggested in the applicants' specification" (EX-1016 at 130-131):
"providing, on a mobile device, an electronic data processing method" (*id.* at 086)	"… providing an electronic data processing method…"
"receiving, on the mobile device via a first call to the electronic data processing method, from a first particular application program during its execution on the mobile device, a first request for a reservation for a first particular designated geographic area of interest" (*id.* at 087)	"…receiving, on the mobile device via a first call to the electronic data processing method, … a first request"
"determining if the reservation for the first particular geographic area of	"… determining if the reservation for the first particular designated

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interest is to be granted to the first particular sponsoring application program" (*id.* at 087)	geographic area of interest is to be granted to the first particular sponsoring application program"

See id. at 1301-131 (asserting that the above limitations were "not taught or suggested in the applicants' specification…. [The specification] "fails to mention or suggest providing an electronic data processing method ***on a mobile device***") (emphasis added).

76. Following Examiner Akonai's rejections, inventor Hardin and the Examiner participated in an interview, during which the rejections were discussed and Examiner Akonai found some of inventor's Hardin's remarks regarding the written description rejection "to be persuasive." *Id.* at 164. The inventors then filed an Amendment and Response in which they amended the claims (including changing "electronic data processing method" to "at least one computer readable program instruction") and responded to the rejections. *Id.* at 166-217. Examiner Akonai thereafter on May 22, 2017 issued a Notice of Allowance. *Id.* at 225-231. U.S. Patent No. 9,779,418 ("the 418 patent") then issued on October 3, 2017. EX-1015.

6. The September 2, 2017 Continuation Application

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77. Before the 418 patent issued, on September 2, 2017, the inventors filed another continuation application, application no. 15/694,786 ("the 786 application") (EX-1002). The claims of this application included as limitations a "mobile device" having a "module configured for execution" by "at least once processor," including instructions for "receiving, from an application program during its execution in the mobile device, one or more requests to reserve at least one designated geographic area of interest…." EX-1002 at 044-045 (claim 1). Following a Preliminary Amendment (*id.* at 082-095) and an interview with Examiner Akonai (*id.* at 108), Examiner Akonai issued a Notice of Allowance on March 27, 2018. *Id.* at 110-116. U.S. Patent No. 10,049,387 ("the 387 patent") issued on August 14, 2018. EX-1001.

7. The June 26, 2018 Continuation Application

78. Before the 387 patent issued, on June 26, 2018, the inventors filed an additional continuation, application no. 16/019,285 ("the 285 application"). EX-2016. The 285 application also contained claims including as limitations "a "mobile device" having a "module configured for execution" by "at least once processor," including instructions for "receiving, from an application program during its execution in the mobile device, a request for having at least a first identifier being associated with a first designated geographic area of interest provided to the application program…." *Id.* at 031-32 (claim 1).

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79. In a first Office Action, Examiner Akonai rejected the pending claims for indefiniteness. *Id.* at 092-096. Following an interview with Examiner Akonai (*id.* at 273), the inventors submitted a Response to the Office Action (*id.* at 265-271). On November 2, 2020, Examiner Akonai issued a Notice of Allowance. *Id.* at 272-283. U.S. Patent No. 10,984,447 ("the 447 patent") issued on April 20, 2021. EX-2015.

C. The Challenged Claims

80. I understand that for purposes of this proceeding, Petitioners are challenging the validity of the following claims of the IPR patents:

- 387 patent: claims 1–34;
- 447 patent: claims 1–52; and
- 418 patent: claims 1–25.

VII. DETAILED ANALYSIS OF PETITION GROUNDS

A. Written Description Challenges

81. I understand that Petitioners and their expert has challenged the following limitations (collectively, "the Challenged Limitations") as failing to have written description support. I have included the limitations in claim 1 of each of the IPR patents in the table below. Materially identical limitations appear in the other independent claims:

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Challenged Patent	Relevant Limitation(s)
418 Patent (EX-1015)	Claim 1: "…implementing, on a mobile device, at least one computer readable program instruction … for receiving, from a particular one application program… during the particular one application program's execution on the mobile device, a request to reserve, for the particular one application program, at least one designated geographic area of interest…"
387 Patent (EX-1001)	Claim 1: "A mobile device comprising … at least one processor … [and] at least one module configured for execution by the at least one processor, wherein the at least one module comprises at least one instruction for: receiving, from an application program during its execution on the mobile device, one or more requests to reserve a at least one selected geographic area of interest…"
447 Patent (EX-2015)	Claim 1: "A mobile device comprising … at least one processor … [and] at least one module configured for execution by the at least one processor, wherein the at least one module comprises at least one instruction for: in response to receiving, from an application program during

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	its execution on the mobile device, a request for having at least a first identifier being associated with a first designated geographic area of interest provided to the application program … to establish … the first designated geographic area of interest as a first area specifically reserved for delivery of the first identifier related to the application program…"

82. I disagree that there is not written description for these limitations, for the reasons below.

B. The Specification Provides Sufficient Written Description for the Challenged Claims

1. A POSITA Would Have Understood That the Specification Discloses That Application Programs Make Requests for Geographic Areas of Interest on Behalf of Their Sponsors

83. The Challenged Limitations include a requirement that an application program on a mobile device send a request to reserve a geographic area of interest. In particular, the challenged claims recite this requirement in the following way:

- 418 patent: "receiving, from a particular one application program… during the particular one application program's execution on the mobile device, a request to reserve, for the particular one application program, at least one designated geographic area of interest;"

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- 387 patent: "receiving, from an application program during its execution on the mobile device, one or more requests to reserve at least one selected geographic area of interest;"
- 447 patent: "receiving, from an application program during its execution on the mobile device, a request for having at least a first identifier being associated with a first designated geographic area of interest provided to the application program … to establish … the first designated geographic area of interest as a first area specifically reserved for delivery of the first identifier related to the application program."

As I explain below, it is my opinion that the specification of the originally-filed application reasonably conveys to a POSITA that the inventors had possession of this claim limitation.

84. The specification explains that sponsors reserve a particular geographic area by sending a request to the content delivery platform:

> Sponsor A 121, sponsor C 123, or sponsor B 125 can reserve an exclusive interest in a particular geographic area by sending a request to content delivery platform 112.

EX-1008 at 020, ¶ 0020. I understand that Petitioners' expert does not contest that this disclosure satisfies the claim requirements for at least the claimed "request" in

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the challenged limitations. Ex. 1003, ¶ 110 ("sponsors send reservation requests to the content delivery platform to reserve a geographic area."). A POSITA would have understood that such a request may be sent by sponsors to the content delivery platform in different ways. For example, based on other disclosures in the specification, a POSITA would have understood that such requests would be sent via a sponsor's registered application programs.

85. The specification explains that registered application programs are provided and controlled by sponsors. In particular, the specification discloses that a "sponsor" can both provide application programs to mobile devices and control application programs on mobile devices. *See* EX-1008 at 019, ¶ 0018 ("System 100 includes … systems or individuals ***operating under control of sponsor A 121, sponsor C 123, and sponsor B 125***."); *id.* at 020, ¶ 0019 ("[A] registered application program is ***provided to mobile devices by*** … one of ***sponsor A 121, sponsor C 123, or sponsor B 125***, or by some other desired delivery mechanism.") (emphasis added).

86. Based on these disclosures, a POSITA would have understood that registered applications may originate from and act on behalf of their sponsors.

87. The specification also discloses that registered application programs are able to make requests to the content delivery platform. For example, a registered application program can send an "additional information request" to the

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content delivery platform. *See* EX-1008 at 034, ¶ 0061 ("As illustrated by block 619, ***a registered application running on a mobile device can send an additional information request [for content] to the platform*** using the previously assigned request identifier."). Accordingly, a POSITA would have understood that registered application programs can make requests directly to the content delivery platform.

88. By disclosing that in some embodiments the sponsor can send a request to reserve a geographic area of interest, a POSITA would have recognized that the specification necessarily discloses that it can do so through the application program on a mobile device provided by and controlled by the sponsor. Such a person would have understood that sponsor requests to a content delivery platform, such as those for reserving a geographic area of interest, would be able to be made via the sponsor's registered application programs.

89. A POSITA would have confirmed that this understanding is correct given how a sponsor's content is delivered to mobile device "via registered applications." EX-1008 at 030, ¶ 0049 ("***A sponsor can provide content for delivery to mobile devices*** having target locations contained within its reserved area, as illustrated by block 415. This content can include advertisements, still image content, animated content, video content, audio content, alphanumeric identifiers, or other content suitable for ***delivery to mobile devices via registered***

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applications.”). Stated otherwise, a POSITA would have understood that a sponsor acts through its registered application program to deliver content. Accordingly, in my opinion a POSITA would have understood that the sponsor would also have its registered application program send a request to the content delivery platform to reserve a geographic area of interest.

90. Based on the above disclosures, a POSITA would have understood that the specification provides sufficient written description support to show how an application program running on a mobile device can request to reserve a geographic area of interest for its sponsor.

91. Mr. Williams appears to contend that a request for content cannot include a request to reserve a geographic area. *See* EX-1003, ¶ 70 (“request 213 is a request for content, not a request to reserve a geographic area.”). I disagree. It is my opinion that a POSITA would have understood that a request to the content delivery platform can additionally include a request to reserve a geographic area.

> Sponsor A 121, sponsor C 123, or sponsor B 125 can reserve an exclusive interest in a particular geographic area by sending a request to content delivery platform 112. In some embodiments, the request can be for exclusive delivery of content to mobile devices running any registered application within given geographic areas, or for content to be delivered to particular registered applications based on a target

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EX-2001.047

location. The request can also include time limitations, limitations based on the length of time a mobile device remains within a given geographic area, or other desired limitations.

EX-1008 at 020, ¶ 0020.

In response to receiving the target location information 216 from object of interest 233, registered application 231 can send a request 213 to content delivery platform 212. The request can include, ***but is not limited to***, information indicating the location of object of interest 233, a request for content, information indicating the location of registered application 231, information indicating the identity of the registered application 231, and a previously received request identifier.

Id. at 024, ¶ 0030. Based on these disclosures, the specification does not limit request 213 made by the application program to requesting ***only*** content and nothing else. Rather, a POSITA reading this passage would have understood, in the context of the other teachings from the specification I discuss above, that request 213 may include multiple things, including a request for a geographic area of interest.

92. As I also explained above, *see* § V.B, it was well known that applications on mobile devices had the ability to request geographic information at

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the time of the invention. A POSITA having this knowledge regarding the state of the art would have accordingly recognized from the teachings in that specification that by May 1, 2009 the inventors were in possession of that aspect of their invention directed to a registered application program sending requests to reserve a geographic area of interest, for example on behalf of its sponsor.

2. A POSITA Would Have Understood That the Specification Discloses How the Challenged Limitations Would Have Been Implemented in Software on a Mobile Device

93. The challenged claims require that certain limitations be implemented on a mobile device using instructions executed by a processor; in other words, the claims require that the request to reserve a geographic area of interest from the application program be received by instructions on the mobile device:

- 418 patent: "implementing, on a mobile device, at least one computer readable program instruction … for receiving;"
- 387 patent: "A mobile device comprising … at least one processor … [and] at least one module configured for execution by the at least one processor, wherein the at least one module comprises at least one instruction for: receiving;"
- 447 patent: "A mobile device comprising … at least one processor … [and] at least one module configured for execution by the at least one

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processor, wherein the at least one module comprises at least one instruction for: in response to receiving."

94. A POSITA would have recognized that the specification supports how a mobile device includes software instructions for receiving the request to reserve a geographic area of interest. For example, the specification discloses in several places that the invention can be implemented in software on the mobile device, including for example the following portions of the specification:

> Various embodiments can be implemented as a system that includes memory, a communications interface, and a processor that cooperate to store and execute a program of instructions implementing various methods and techniques described herein. Furthermore, some embodiments can be implemented on a computer readable medium tangibly embodying a program of instructions.

EX-1008 at 018, ¶ 0009.

> [A] ***mobile phone may also be a general purpose computing device***....

Id. at 021, ¶ 0021.

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> The methods and processes discussed previously, as well as other embodiments, may be implemented in a processing system executing a set of instructions stored in memory….

Id. at 034, ¶ 0063.

> Various disclosed embodiments can be implemented in hardware, software, or a combination containing both hardware and software elements. In one or more embodiments, ***the invention is implemented in software, which includes but is not limited to firmware, resident software, microcode, etc***. Some embodiments may be realized as a computer program product, and may be implemented as a computer-usable or computer-readable medium embodying program code for use by, or in connection with, a computer, a processor, or other suitable instruction execution system.

Id. at 035-036, ¶ 0066 (emphasis added). Based on the above disclosures, a POSITA would have understood from the specification that the invention was described to be implemented through software run or stored on a mobile device. This includes having software instructions on the mobile device receive the requests to reserve a geographic area of interest, as claimed.

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95. Mr. Williams appears to contend that the claim limitation at issue requires a content delivery platform. *See* Ex. 1003, ¶ 120 ("In my opinion, a POSA would not have been informed by the shared specification's disclosure that the inventor was in possession of the alleged invention of a content delivery platform implemented on the same mobile device as the registered application."); *id.* at ¶ 111 ("all of the independent claims of the 387 patent also require that the reservation request is received on the same mobile device from which it is sent (*i.e.*, the content delivery platform must run on the same mobile device as the registered application making the reservation request)"). I disagree that the claims have such a requirement. I have reviewed the claims and do not see any limitation in any of the independent claims requiring that a "content delivery platform" be included on the mobile device.

96. Dependent claims 9, 17, and 24 of the 418 patent are the only claims that require "content delivery platform." But, the plain language of those claims does not require that content delivery platform be included on the mobile device. Instead, these claims require the opposite—that is, the "content delivery platform" be external to the mobile device. EX-1015, claims 9, 17, 24. Accordingly, no limitation in the challenged claims appear to require that a "content delivery platform" be included on the mobile device.

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97. And even if there was such a requirement, in my opinion a POSITA would have understood that the specification provides sufficient written description support that the disclosed embodiments implement the content delivery platform through software in part or in whole on a mobile device.

98. The specification discloses that the content delivery platform receives requests:

> Sponsor A 121, sponsor C 123, or sponsor B 125 can reserve an exclusive interest in a particular geographic area by sending a request to content delivery platform 112. In some embodiments, the request can be for exclusive delivery of content to mobile devices running any registered application within given geographic areas, or for content to be delivered to particular registered applications based on a target location. The request can also include time limitations, limitations based on the length of time a mobile device remains within a given geographic area, or other desired limitations.

EX-1008 at 020, ¶ 0020. Mr. Williams agrees. EX-1003, ¶ 68. A POSITA would have understood from the specification that in some embodiments the content delivery platform, and the receiving step in particular, would be implemented in whole or in part on the mobile device. *See* EX-1008 at 017-036, ¶¶ 0009, 0021, 0063, 0066.

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99. As I described above, a POSITA reviewing these portions of the specification would recognize that this embodiment (receiving, on a mobile device, the request to reserve a geographic area of interest) is at a minimum inherently disclosed in the specification. A POSITA would have thus immediately envisioned that the content delivery platform described in the specification would have been included in the claimed mobile device in at least some embodiments.

100. A POSITA would have also understood that the term "platform" includes implementation through software on a mobile device. *See, e.g.*, EX-2009.003 (*Newton's Telecom Dictionary*, 20th ed. (2004), definition for "platform") ("Platform is a loosely-defined word for a software operating system and/or open hardware, which an outsider could write software for. Windows98 is a platform. So is Windows 2000. If every phone system were a platform, then every owner of that phone system could write software for his phone system or buy outside-produced software and have his phone system work more to his liking. That's the objective of creating a platform. See also OAI and Platform Independence."). Other contemporaneous definitions likewise support this understanding. EX-2008.012-013 (*Microsoft Computer Dictionary*). Based on the plain meaning of the term, a POSITA would have understood that the content delivery platform would have been able to implemented, whole or in part, on the mobile device.

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101. Further, the specification refers to the "content delivery platform" interchangeably as a "content delivery ***server***":

> [T]he mobile device can forward information associated with the target location to the content delivery platform, or ***the content delivery server*** can obtain location information from a third party application or device, from a home location register, from a visiting location register, from raw, differential, processed or semi-processed GPS data, from power signals used in code-division multiple access or other wireless communications systems or otherwise.

EX-1008 at 033, ¶ 0058 (emphasis added). A POSITA would understand this to mean that the platform can relate to the application program in a server/client relationship.

102. As I explained above, *see* § V.C, it was well-known by May 2009 that a client-server relationship could exist and function on a mobile device. Mr. Williams does not contest this fact. Ex. 1003, ¶ 54 (identifying that "device-based geofencing systems" were appearing in the 2008-2009 time frame, including systems having "nearly all the components needed for a complete geofencing ecosystem on the mobile device"). Indeed, Mr. Williams confirmed that another published patent application in 2008 "described a fully-functional client/device-based geofencing system" which, like Jing (*see* EX-2010) taught that having a

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client/server relationship on the mobile device was beneficial when network connectivity was not available. EX-1003, ¶¶ 56-57.

103. For the above reasons, a POSITA would have understood the disclosures in the May 1, 2009 application disclosed that the inventors were in possession of an invention whereby a content delivery platform would be included on a mobile device, if the claims in the IPR patents were interpreted as requiring a content delivery platform.

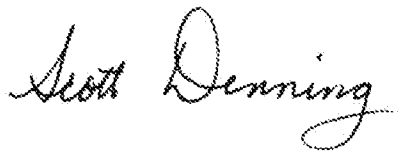
104. For these same reasons, and the reasons I have set forth in ¶ 94 above, a POSITA would have likewise understood that there is written description support for the claims as actually written – requiring instructions for "receiving" on a mobile device the request to reserve a geographic area of interest. A POSITA would have immediately understood that such instructions would be implemented as part of a client/server relationship, as Jing and the other prior art references I discuss herein confirm. *See*, *e.g.*, Jing, EX-2010, Figure 8 (showing that "client code" and "server code" reside on the same "mobile host"). Accordingly, in my opinion as POSITA would have understood that as of May 1, 2009, the inventors were in possession of the claimed invention.

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VIII. JURAT

105. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of United States Code.

I declare under penalty of perjury that the foregoing is true and correct. Executed this 7th day of November 2022 in Anderson, South Carolina.



Scott Andrew Denning

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/863,208	07/12/2022	Ryan Hardin	971600.1001

CONFIRMATION NO. 2712

POA ACCEPTANCE LETTER

23280
Davidson, Davidson & Kappel, LLC
589 8th Avenue
22nd Floor
New York, NY 10018

OC000000137019964

Date Mailed: 12/15/2022

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/08/2022.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/mteklemichael/

PTO/SB/81 (01-09)
Approved for use through 03/31/2021. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY OR REVOCATION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS

Application Number	17/863,208
Filing Date	07/12/2022
First Named Inventor	Ryan Hardin
Title	Exclusive Delivery of Content Within Geographic Areas
Art Unit	3648
Examiner Name	Olumide Ajibade Akonai
Attorney Docket Number	971600.1001

I hereby revoke all previous powers of attorney given in the above-identified application.

☐ A Power of Attorney is submitted herewith.

OR

☒ I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

23280

OR

☐ I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified application to:

☒ The address associated with the above-mentioned Customer Number.

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the:

☒ Applicant/Inventor.

OR

☐ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on _____.

SIGNATURE of Applicant or Assignee of Record

Signature	/Ryan Hardin/	Date	08-December-2022
Name	Ryan Hardin	Telephone	
Title and Company			

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requiresthat you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements ofthe Act, please be advised that: (1) the general authority for the collection ofthis information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office isto process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment ofthe appl ication or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PTO/SB/81 (01-09)
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Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on _____.

SIGNATURE of Applicant or Assignee of Record

Signature	/Andrew Hill/	Date	08-December-2022
Name	Andrew Hill	Telephone	
Title and Company			

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	47174241
Application Number:	17863208
International Application Number:	
Confirmation Number:	2712
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Customer Number:	118653
Filer:	Clint R. Mehall
Filer Authorized By:	
Attorney Docket Number:	0075652.00009
Receipt Date:	08-DEC-2022
Filing Date:	12-JUL-2022
Time Stamp:	21:14:14
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	HardinSignedPOA.PDF	199754 ba2d396586bac4aa7a08ddbfbfe8f3b5a4f6b651	no	2

Warnings:

Information:					
2	Power of Attorney	HillSignedPOA.PDF	201508 fd72b933b9b634340935 6fdcc8f1f71f9ed62b2a	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	401262	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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Ryan Hardin
P.O. BOX 271861
Houston, TX 77277

Courtesy Reminder for
Application Serial No: 17/863,208

Attorney Docket No: 0075652.00009
Customer Number: 118653
Date of Electronic Notification: 11/07/2022

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:
patent.matters@pronetcorp.com

To view your correspondence online or update your email addresses, please visit us anytime at **https://ppair-my.uspto.gov/pair/PrivatePair.**
If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/863,208	07/12/2022	Ryan Hardin	0075652.00009	2712

118653 7590 11/07/2022

Ryan Hardin
P.O. BOX 271861
Houston, TX 77277

EXAMINER	
AJIBADE AKONAI, OLUMIDE	

ART UNIT	PAPER NUMBER
3648	

NOTIFICATION DATE	DELIVERY MODE
11/07/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent.matters@pronetcorp.com

Office Action Summary	Application No. 17/863,208	Applicant(s) Hardin et al.	
	Examiner OLUMIDE T AJIBADE AKONAI	Art Unit 3648	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 24 October 2022.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-30 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-30 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 12 July 2022 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☑ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

> (a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 6-8, 15, 21, and 24-25 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for applications subject to pre-AIA 35 U.S.C. 112, the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 6 recites the claim limitation “wherein the identifier delivered by the content delivery platform software is a boundary identifier.” However, the specification does not provide sufficient details such that one of ordinary skill in the art would understand how

content delivery platform software delivers a boundary identifier to the computer program on the mobile device. The applicant specification only discloses allowing the sponsors to reserve particular geographic areas. The sponsor can also establish perimeters defining geographic areas of exclusive or semi-exclusive control. This is recited in paragraphs [0045]-[0046] of the specification:

[0045] *Referring next to Figure 4, a method 400 for allowing sponsors to reserve particular geographic areas will be discussed according to embodiments of the present disclosure. Method 400 begins, as illustrated by block 401. As illustrated by block 403, a content delivery platform, for example content delivery platform 112 as illustrated in Figure 1, can receive a request for sponsor registration, which can also include receiving physical address location from the sponsor. As illustrated by block 405, the sponsor can establish perimeters defining geographic areas of exclusive or semi-exclusive control. These geographic areas are areas the sponsor wishes to reserve for delivery of his own advertisements or other content controlled by the sponsor.*

[0046] *The perimeters established can be based on map features, such as streets, rivers, landmarks, or any of the other various map features. The perimeters can also be defined by latitude and longitude, or various geometric constructs having a given relative position to either a point location, a map location, a physical address, or otherwise. Some embodiments allow for establishing perimeters defining areas based on a combination of the various types of constructs. So, for example, latitude, longitude and map features may be used to establish the reserved area, or a combination of coordinates and geometric constructs can be used in conjunction with other suitable boundary identifiers to establish an area that may be reserved specifically for content related to a particular advertiser or sponsor.*

Therefore, in the specification, the boundary identifier(s) is provided by the sponsor(s) to the content delivery platform software, and not from the content delivery platform software to the computer program on the mobile device as the claim seems to suggest. The specification also discloses delivering the sponsor's content (advertisements) from the content delivery platform to the mobile device (see [0018], [0021], [0027], [0032]-[0033], [0038] of the specification).

Thus, for the reasons explained above, the disclosure does not provide adequate support for the limitation "wherein the identifier delivered by the content delivery platform software is a boundary identifier" as recited in the claim. The specification does not demonstrate that the applicant has made an invention that achieves the claimed function because the invention is not described with sufficient detail such that one of ordinary skill in the art can reasonably conclude that the inventor hand possession of the claimed invention.

Claims 7 and 8 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement by virtue of being dependent on claim 6.

Claim 15 recites "wherein the content delivery platform software resides in the mobile device." The specification is devoid of any indication of any content delivery platform software that resides in the mobile device. Instead, the applicant specification only discloses a computer program in the mobile device (see paragraphs [0019]-[0020]). Any content delivery platform software will most likely be on the content delivery platform 112, which, based on the applicant's disclosure and drawings, is separate from the mobile device. Therefore, the claimed limitation "wherein the content delivery platform software resides in the mobile device" is not taught, suggested, or made obvious by the applicant's specification and thus constitutes new matter.

Claim 21 recites "wherein the code further comprises at least one instruction for: storing, on the mobile device, location information received from one or more mobile devices, wherein the location information received from the one or more mobile devices is received by the one or more mobile devices from one or more third party sources and

is to be used, in combination with cellular tower information received via an antenna of the mobile device, for positioning the geographic location of the mobile device; and using the stored location information received from the one or more mobile devices, in combination with cellular tower information received via an antenna of the mobile device operable to communicate with a cellular network, to position the geographic location of the mobile device. The specification does not provide adequate support for "wherein the location information received from the one or more mobile devices is received by the one or more mobile devices from one or more third party sources." Paragraphs [0025] and [0059] of the specification clearly disclose the content delivery platform receiving location information from third party sources. However, the disclosure is devoid of the mobile device receiving location information from third party sources. Therefore, the specification does not demonstrate that the applicant has made an invention that achieves the claimed function of "wherein the location information received from the one or more mobile devices is received by the one or more mobile devices from one or more third party sources" because the invention is not described with sufficient detail such that one of ordinary skill in the art can reasonably conclude that the inventor had possession of the claimed invention.

Claim Rejections - 35 USC § 102

4. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

5. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 9-12, 16, 20, 22, 23, and 27-30 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by **Yoon et al US 20080270235** (**hereinafter Yoon**).

Regarding **claim 1**, Yoon discloses a system for creating and offloading location awareness (1, see fig. 1, [0018]-[0019]), the system including a mobile device (user terminal/navigation terminal, see fig. 1, [0022]) and comprising:

at least one memory (advertiser terminal 4, connecting to homepage of advertisement providing server (~memory storing code/software for performing connecting to homepage), see [0019]-[0020], [0029].);

at least one processor operably coupled to the at least one memory (advertiser terminal 4, connecting to homepage of advertisement providing server (~memory storing code/software for performing connecting to homepage), see [0019]-[0020], [0029]); and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

sending, to a-content delivery platform software (advertisement providing server 2, see fig. 3, [0029]):

a request to have an identifier (advertisement, information of the advertisement see figs. 2-3, [0019]-[0020]), being associated with a selected geographic area of interest, delivered to a computer program on the mobile device (see fig. 3, 31 310, 32, 33, [0021]-[0022]. The means are operated using software/computer program in the navigation terminal) after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0029], [0035]); and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0019]-[0020], [0023], [0029], [0035]); and

receiving, via the computer program, the identifier delivered by the content delivery platform software after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest (when user

location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit, see fig. 3, [0022]-[0025], [0033], [0034]).

Regarding **claim 2** as applied to claim 1, Yoon further discloses wherein the code further comprises at least one instruction for, in response to receiving, via the computer program, the identifier delivered by the content delivery platform software, displaying, via a connected display device, content associated with the selected geographic area of interest (see figs. 3-4, [0025], [0034]-[0035]).

Regarding **claim 3** as applied to claim 1, Yoon further discloses wherein: the code further comprises at least one instruction for sending the identifier to the content delivery platform software (registering an advertisement file, receiving application of an advertisement from an advertiser, see figs. 2-3, [0019]-[0020], [0029]); and the computer program is an application program (see fig. 3, 31 310, 32, 33, [0021]-[0022]. The means are operated using software/computer program in the navigation terminal).

Regarding **claim 4** as applied to claim 1, Yoon further discloses wherein: the geometric construct comprises at least a latitude value, a longitude value, and a radius value (coordinate position of the navigation terminal is in the advertisement area; a distance tolerance is used to determine that the user's location is within the advertisement area, see [0020]); and the geographic reservation data further comprises information indicating an area bounded by the at least one perimeter as the selected geographic area of interest (coordinate position of the navigation terminal is in the

advertisement area; a distance tolerance is used to determine that the user's location is within the advertisement area, see [0020], [0023], [0029], [0035]).

Regarding **claim 5** as applied to claim 4, Yoon further discloses wherein: the selected geographic area of interest is a first selected geographic area of interest (advertisement area, see [0020]); and

the code further comprises at least one instruction for sending, to the content delivery platform software, service a second request to have an identifier, being associated with a second selected geographic area of interest, delivered to the computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest, wherein the second selected geographic area of interest is distinct from the first selected geographic area of interest (providing real time advertisements based on the location under navigation's operation. Providing advertisements in real time based on location required providing the advertisements to the advertisement providing server, see [0007], [0019]-[0020], [0035]).

Regarding **claim 9** as applied to claim 1, Yoon further discloses wherein the identifier is to be delivered exclusively to the computer program and not to be broadcast to other computer programs on the mobile device.

Regarding **claim 10**, Yoon discloses a system for creating and offloading location awareness (1, see fig. 1, [0018]-[0019]), the system including a mobile device (user terminal/navigation terminal, see fig. 1, [0022]) and comprising:

at least one memory (advertiser terminal 4, connecting to homepage of advertisement providing server (~memory storing code/software for performing connecting to homepage), see [0019]-[0020], [0029]);

at least one processor operably coupled to the at least one memory (advertiser terminal 4, connecting to homepage of advertisement providing server (~memory storing code/software for performing connecting to homepage), see [0019]-[0020], [0029]); and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

receiving, via content delivery platform software (advertisement providing server 2, see fig. 3, [0029]):

a request to have an identifier (advertisement, information of the advertisement see figs. 2-3, [0019]-[0020]), being associated with a selected geographic area of interest, delivered to a computer program on the mobile device (see fig. 3, 31 310, 32, 33, [0021]-[0022]. The means are operated using software/computer program in the navigation terminal) after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0029], [0035]); and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic

reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0019]-[0020], [0023], [0029], [0035]);

reserving, in the at least one memory, the selected geographic area of interest for delivery of the identifier to the computer program (storing the advertisement area for later comparison with the user's location, see fig. 3, [0020], [0023], [0029], [0033], [0035]);

obtaining location information representing at least one physical geographic location of the mobile device (user's location, see [0032], [0032]); and

delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest (when user location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit, see fig. 3, [0020], [0022]-[0025], [0033], [0034]).

Regarding **claim 11** as applied to claim 10, Yoon further discloses wherein the code further comprises at least one instruction for: sending, to the content delivery platform software (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date

and time) to receive the advertisement, from the advertiser, see [0029], [0035]), the request and the geographic reservation data; and

receiving, via the computer program, the identifier in response to the delivering (when user location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit, see fig. 3, [0020], [0022]-[0025], [0033], [0034]).

Regarding **claim 12** as applied to claim 10, Yoon further discloses wherein: the code further comprises at least one instruction for: receiving the identifier via the content delivery platform software (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0029], [0035]); and in response to receiving the identifier via the content delivery platform software, storing, in the at least one memory, the identifier (see [0029]); and delivering the identifier to the computer program comprises delivering the identifier from the at least one memory (see [0029]).

Regarding **claim 16** as applied to claim 10, Yoon further discloses wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest (see [0023], [0033]).

Regarding **claim 20** as applied to claim 16, Yoon further discloses wherein the determining considers whether at least a predetermined portion of the selected

geographic area of interest intersects the mobile device's location circle, wherein the location circle comprises the area contained within a predetermined radius of the geographic location of the mobile device (see [0023], [0033]).

Regarding **claim 22** as applied to claim 10, Yoon further discloses wherein: the code further comprises at least one instruction for: receiving, via the content delivery platform software:

a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to a second computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser. Providing real time advertisements based on the location under navigation's operation. Providing advertisements in real time based on location required providing the advertisements to the advertisement providing server, see [0007], [0019]-[0020], [0029], [0035]); and

second geographic reservation data to have the second selected geographic area of interest reserved for delivery of the second identifier to the second computer program, wherein the second geographic reservation data comprises a second geometric construct used to establish at least one perimeter as a boundary for the second selected geographic area of interest (advertisement receiving means receives

information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0019]-[0020], [0023], [0029], [0035]);

reserving, in the at least one memory, the second selected geographic area of interest for delivery of the second identifier to the second computer program (storing the advertisement area for later comparison with the user's location, see fig. 3, [0020], [0023], [0029], [0033], [0035]); and

delivering the second identifier to the second computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the second selected geographic area of interest (when user location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit. Delivering advertisements real time based on the navigation terminal's location, see fig. 3, [0020], [0022]-[0025], [0033], [0034]).

Regarding **claim 23** as applied to claim 10, Yoon further discloses wherein: the code further comprises at least one instruction for:

receiving, via the content delivery platform software (advertisement providing server 2, see fig. 3, [0029]):

a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to the computer program after it has been determined, by at least use of location information representing at least one physical

geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser. Providing real time advertisements based on the location under navigation's operation. Providing advertisements in real time based on location required providing the advertisements to the advertisement providing server, see [0007], [0019]-[0020], [0029], [0035]); and

second geographic reservation data to have the second selected geographic area of interest reserved for delivery of the second identifier to the computer program, wherein the second geographic reservation data comprises a second geometric construct used to establish at least one perimeter as a boundary for the second selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0019]-[0020], [0023], [0029], [0035]);

reserving, in the at least one memory, the second selected geographic area of interest for delivery of the second identifier to the computer program (storing the advertisement area for later comparison with the user's location, see fig. 3, [0020], [0023], [0029], [0033], [0035]); and

delivering the second identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the second selected geographic area of interest (when user location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit. Delivering advertisements real time based on the navigation terminal's location, see fig. 3, [0020], [0022]-[0025], [0033], [0034]).

Regarding **claim 27** as applied to claim 16, Yoon further discloses wherein determining that the mobile device has at least entered the selected geographic area of interest comprises determining that the mobile device has at least entered the selected geographic area of interest by at least use of a specialized processor for processing whether the mobile device has at least entered the selected geographic area of interest (see fig. 3, [0023], [0033]).

Regarding **claim 28** as applied to claim 11, Yoon further discloses wherein: the code further comprises at least one instruction for determining that the mobile device has at least entered the selected geographic area of interest, wherein the at least one instruction for determining is configured for execution by a specialized processor of the mobile device, and the specialized processor is distinct from the at least one processor used by the at least one instruction for sending the request and the geographic reservation data to the content delivery platform software (comparing means 32 compares the user's location with the advertisement area and determines the user's location is in the advertisement area, see fig. 1, [0032]-[0033]).

Regarding **claim 29**, Yoon discloses a non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor (advertiser terminal 4, connecting to homepage of advertisement providing server (~memory storing code/software for performing connecting to homepage), see [0019]-[0020], [0029]) to perform the steps of:

sending, to a-content delivery platform software (advertisement providing server 2, see fig. 3, [0029]):

a request to have an identifier (advertisement, information of the advertisement see figs. 2-3, [0019]-[0020]), being associated with a selected geographic area of interest, delivered to a computer program on a mobile device (see fig. 3, 31 310, 32, 33, [0021]-[0022]. The means are operated using software/computer program in the navigation terminal) after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0029], [0035]); and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement

for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0019]-[0020], [0023], [0029], [0035]); and

receiving, via the computer program, the identifier delivered by the content delivery platform software service after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest (when user location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit, see fig. 3, [0022]-[0025], [0033], [0034]).

Regarding **claim 30**, Yoon discloses a non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor (advertiser terminal providing server, connecting to advertiser terminal 4, and transmitting to navigation terminal (~memory storing code/software for enabling a processor to execute), see [0019]-[0020], [0029]) to perform the steps of:

receiving, via content delivery platform software (advertisement providing server 2 (~memory storing code/software for enabling a processor to execute), see fig. 3, [0029]):

a request to have an identifier delivered (advertisement, information of the advertisement see figs. 2-3, [0019]-[0020]), being associated with a selected geographic area of interest, to a computer program on a mobile device (see fig. 3, 31 310, 32, 33,

[0021]-[0022]. The means are operated using software/computer program in the navigation terminal) after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0029], [0035]); and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest (advertisement receiving means receives information of the advertisement including the advertisement for delivery to the navigation terminal when the navigation device enters a specific area, the advertisement area and period (date and time) to receive the advertisement, from the advertiser, see [0019]-[0020], [0023], [0029], [0035]);

reserving, in at least one memory of the mobile device, the selected geographic area of interest for delivery of the identifier to the computer program (storing the advertisement area for later comparison with the user's location, see fig. 3, [0020], [0023], [0029], [0033], [0035]);

obtaining location information representing at least one physical geographic location of the mobile device (user's location, see [0032], [0032]); and

delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest (when user location comparing means 32 determines that the navigation terminal is in the advertisement area, advertisement acquiring means acquires the advertisement from the DB and provides the advertisement to the speaker and display unit, see fig. 3, [0020], [0022]-[0025], [0033], [0034]).

Claim Rejections - 35 USC § 103

7. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries for establishing a background for determining obviousness under pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

8. Claims 13, 14, 17, and 18 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Zellner et al US 20020077084** (**hereinafter Zellner**).

Regarding **claim 13** as applied to claim 10, Yoon discloses the claimed invention except wherein delivering the identifier to the computer program comprises delivering the identifier after it has been determined that the mobile device has at least remained within the selected geographic area of interest for at least a predetermined length of time.

In the same field of endeavor, Zellner discloses a system for creating and offloading location awareness (see fig. 1), the system including a mobile device (cell phone 10, see fig. 1) and comprising:

at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]), see abstract);

at least one processor operably coupled to the at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]); and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for: delivering the identifier after it has been determined that the mobile device has at least remained within the selected geographic area of interest for at least a predetermined length of time (transmit user-specific or location specific voice or data advertisements to cell phone 10, when cell phone 10 is determined to be visiting a location 14 after a periodic location determinations indicates a stable location, see [0031]-[0035]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Zellner with Yoon by providing location based advertisement to a navigation terminal only when it has been determined, based on predefined location measurements for a specific period of time, that the navigation terminal is still at or within the same location, for the benefit providing the location-specific advertisements only to mobile devices that are staying in or visiting the area of the determined location and not just passing by/moving through the location.

Regarding **claim 14** as applied to claim 12, Yoon discloses the claimed invention except wherein the code further comprises at least one instruction for: preserving delivery of the identifier from the at least one memory to the computer program until

after it has been determined that the mobile device has remained within the selected geographic area of interest for at least a predetermined length of time.

In the same field of endeavor, Zellner discloses a system for creating and offloading location awareness (see fig. 1), the system including a mobile device (cell phone 10, see fig. 1) and comprising:

at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]), see abstract);

at least one processor operably coupled to the at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]); and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for: preserving delivery of the identifier from the at least one memory to the computer program until after it has been determined that the mobile device has remained within the selected geographic area of interest for at least a predetermined length of time (transmit user-specific or location specific voice or data advertisements to cell phone 10, when cell phone 10 is determined to be visiting a location 14 after a periodic location determinations indicates a stable location, see [0031]-[0035]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Zellner with Yoon by providing location based advertisement to a navigation terminal only when it has been determined, based on predefined location measurements for a specific period of time,

that the navigation terminal is still at or within the same location, for the benefit providing the location-specific advertisements only to mobile devices that are staying in or visiting the area of the determined location and not just passing by/moving through the location.

Regarding **claim 17** as applied to claim 10, Yoon discloses the claimed invention except wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time.

In the same field of endeavor, Zellner discloses a system for creating and offloading location awareness (see fig. 1), the system including a mobile device (cell phone 10, see fig. 1) and comprising:

at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]), see abstract, ;

at least one processor operably coupled to the at least one memory (third party/web advertiser/service provider (~memory storing code/software for enabling a processor to execute), see fig. 1, [0034], [0074]-[0075]); and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time (transmit user-specific or location specific voice or data advertisements to cell phone 10, when cell phone 10 is determined to be visiting a

location 14 after a periodic location determinations indicates a stable location, see [0031]-[0035]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Zellner with Yoon by providing location based advertisement to a navigation terminal only when it has been determined, based on predefined location measurements for a specific period of time, that the navigation terminal is still at or within the same location, for the benefit providing the location-specific advertisements only to mobile devices that are staying in or visiting the area of the determined location and not just passing by/moving through the location.

Regarding **claim 18** as applied to claim 10, Yoon discloses the claimed invention except wherein the code further comprises at least one instruction for creating a notification that the mobile device has at least entered the selected geographic area of interest.

In the same field of endeavor, Yoon discloses a method comprising creating a notification that the mobile device has at least entered the selected geographic area of interest (see [0033]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Zellner with Yoon by creating a registration for registering with a network after a mobile device enters an area covered by the network, for the benefit providing the location-specific advertisements to mobile devices that are located the area of the network.

9. Claim 26 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Barnes et al US 8,010,134** (**hereinafter Barnes**).

Regarding **claim 26** as applied to claim 10, Yoon discloses the claimed invention except wherein the obtained location information is determined at least in part by using cellular tower information received via a cellular antenna of the mobile device and not by using information received via a GPS antenna of the mobile device. In the same field of endeavor, Barnes discloses wherein the obtained location information is determined at least in part by using cellular tower information received via a cellular antenna of the mobile device (410, 412, see fig. 4B, col. 6, lines 15-56).

It would therefore have been obvious to one of ordinary skill in the art at the time the time the invention was made to combine the teaching of Barnes with Yoon by using cell tower location technology to determine the location of the mobile device/navigation terminal, for the benefit of quickly determining the location of device for mobile device advertising.

10. Claim 19 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Unold et al US 20020055880** (**hereinafter Unold**).

Regarding **claim 19** as applied to claim 10, Yoon discloses the claimed invention except wherein: reserving the selected geographic area of interest for delivery of the identifier to the computer program comprises reserving the selected geographic area of interest only after it has been determined that the selected geographic area of interest is available to be reserved; and the code further comprises at least one instruction for

sending a notification indicating that the selected geographic area of interest has been reserved.

In the same field of endeavor, Unold discloses a method for reserving ads comprising reserving the selected geographic area of interest for delivery of the identifier to the computer program comprises reserving the selected geographic area of interest only after it has been determined that the selected geographic area of interest is available to be reserved and sending a notification indicating that the selected geographic area of interest has been reserved (reserving schedule report with location for which reservation of advertisement is being made and advertisement spots selected for reservation by the advertiser see [0141]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Unold with Yoon by making notifying the advertiser terminal of name and location, and time of advertisements reserved by the advertiser, for the benefit of enabling the advertiser to schedule specific location and times for purchasing advertisements.

11. Claims 24 and 25 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Yoon et al US 20080270235** (**hereinafter Yoon**) in view of **Mikkelsen et al US 20100077022** (**hereinafter Mikkelsen**).

Regarding **claim 24** as applied to claim 10, Yoon discloses the claimed invention except wherein the code further comprises at least one instruction for performing a verification whether the computer program has authorization to initiate a location session with the content delivery platform software, wherein:

if the verification passes, the computer program is allowed to initiate a location session with the content delivery platform software; and

if the verification fails, the computer program is not allowed to initiate a location session with the content delivery platform software.

Mikkelsen discloses a method for media delivery to a device comprising performing a verification whether the computer program in the device has authorization (see fig. 21, [0271]) to initiate a session with a content delivery platform software (content server, see fig. 20, [0280]), wherein;

if the verification passes, the computer program is allowed to initiate a location session with the content delivery platform software (using an authorization key to authenticate a user at a content server before providing a music clip file and advertisements to the user, [0063], [0260]-[0261], [0265]-[0266], [0279]-[0280], [0282], [0284]); and

if the verification fails, the computer program is not allowed to initiate a location session with the content delivery platform software.

It would therefore have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to combine the teaching of Mikkelsen with Yoon by authenticating a mobile device at the content server before providing the mobile device with any content, as taught by Mikkelsen, for the benefit of delivering advertising messages along with a user selected video clip.

Regarding **claim 25** as applied to claim 24, the combination of Yoon and Mikkelsen disclose the claimed invention. Yoon does not teach wherein performing the verification comprises performing, for the computer program, a check on a key being previously stored in a data store that the content delivery platform software service uses

for validating location sessions initiated by one or more computer programs installed on the mobile device. However, Mikkelsen further discloses wherein performing the verification comprises performing, for the computer program, a check on a key being previously stored in a data store that the content delivery platform software service uses for validating location sessions initiated by one or more computer programs installed on the mobile device (using an authorization key to authenticate a user at a content server before providing a music clip file and advertisements to the user, [0063], [0260]-[0261], [0265]-[0266], [0279]-[0280], [0282], [0284]).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Clavel et al US 9,015,692 discloses a method and system for customizing content on a server for rendering on a wireless device.

Deeming et al US 20100131501 discloses providing geocoded targeted web content.

Colligan et al US 20100130179 discloses system and method for providing advertisement data or other content.

Sennett et al US 20090239510 discloses theme based advertising.

Lewis et al US 20090197582 discloses a platform for mobile advertising and microtargeting of promotions.

Singh et al US 20080109317 discloses wireless dissemination of environment aware information.

Kleinstern et al US 20070192409 discloses advertising based on location behavior.

Vengroff et al US 20070185768 discloses pay-for-visit advertising based on visit to physical locations.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached Monday-Friday 8AM-4PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VLADIMIR MAGLOIRE can be reached on 571-270-5144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and

https://www.uspto.gov/patents/docx for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/OLUMIDE AJIBADE AKONAI/
Primary Examiner, Art Unit 3648

Examiner-Initiated Interview Summary	**Application No.** 17/863,208	**Applicant(s)** Hardin et al.		
	Examiner OLUMIDE T AJIBADE AKONAI	**Art Unit** 3648	**AIA (First Inventor to File) Status** No	**Page** 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	**Title**	**Type**
OLUMIDE T AJIBADE AKONAI	Primary Examiner	Telephonic
Andrew Hardin	Inventor	

Date of Interview: 31 October 2022

Issues Discussed:

Proposed Amendment(s)

The examiner notified the applicant that the examiner's amendment to the claims requested by the inventor will not be entered because the current claims are not deemed to be allowable.
The applicant indicated that (contrary to the Miscellaneous letter filed 10/29/2022) they will not be filing an official request to temporarily postpone examination of the application, and the examiner can go ahead and submit an office action.

/OLUMIDE AJIBADE AKONAI/ Primary Examiner, Art Unit 3648	

Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04
Please further see:
MPEP 713.04
Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b)
37 CFR § 1.2 Business to be transacted in writing

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Notice of References Cited	Application/Control No. 17/863,208	Applicant(s)/Patent Under Reexamination Hardin et al.	
	Examiner OLUMIDE T AJIBADE AKONAI	Art Unit 3648	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20080270235-A1	10-2008	Yoon; Nam-Ju	G06Q30/02	705/14.62
*	B	US-20020077084-A1	06-2002	Zellner, Samuel N.	H04L67/306	455/414.2
*	C	US-20020055880-A1	05-2002	Unold, Eric	G06Q30/02	705/14.61
*	D	US-20100077022-A1	03-2010	Mikkelsen; John	H04L67/04	705/26.1
*	E	US-9015692-B1	04-2015	Clavel; Philippe	G06F16/9577	717/168
*	F	US-20100131501-A1	05-2010	Deeming; Robert F.	G06Q30/0251	707/724
*	G	US-20100130179-A1	05-2010	Colligan; Edward T.	H04W4/12	455/414.1
*	H	US-20090239510-A1	09-2009	Sennett; DeWayne Allan	G06Q30/0267	455/414.1
*	I	US-20090197582-A1	08-2009	LEWIS; Robert C.	H04L67/55	455/414.2
*	J	US-20080109317-A1	05-2008	Singh; Gurvinder	G06Q30/0254	705/14.5
*	K	US-20070192409-A1	08-2007	Kleinstern; Amir	G06Q10/10	709/203
*	L	US-20070185768-A1	08-2007	Vengroff; Darren	G06Q30/04	705/14.69
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/863,208	Hardin et al.
	Examiner	Art Unit
	OLUMIDE T AJIBADE AKONAI	3648

CPC - Searched*		
Symbol	**Date**	**Examiner**
G06Q30/02 30/0261 50/01 30/0241 30/0267 30/0269 30/0251 30/0255 20/3224 30/0205 30/0207 20/322 30/0259	10/31/2022	OA
H04W4/029 4/02 4/021 4/21 4/023 4/025 4/18	10/31/2022	OA

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

/OLUMIDE AJIBADE AKONAI/ Primary Examiner, Art Unit 3648	

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/863,208	Hardin et al.
	Examiner	Art Unit
	OLUMIDE T AJIBADE AKONAI	3648

Search Notes		
Search Notes	**Date**	**Examiner**
PE2E search	10/31/2022	OA
Inventor search	10/31/2022	OA
IP.com search	10/31/2022	OA
IPR2022-01332 Reviewed Petition for Post Grant Review of U.S. No. 9,779,418 on 10/07/2022	10/31/2022	OA
IPR2022-01331 Reviewed Petition for Post Grant Review of U.S. No. 9,779,418 on 10/07/2022	10/31/2022	OA
IPR2022-01330 Reviewed Petition for Post Grant Review of U.S. No. 9,779,418 on 10/07/2022	10/31/2022	OA
IPR2022-01335 Reviewed Petition for Post Grant Review of U.S. No. 10,984,447 on 10/20/2022	10/31/2022	OA
IPR2022-01334 Reviewed Petition for Post Grant Review of U.S. No. 10,984,447 on 10/20/2022	10/31/2022	OA
IPR2022-01334 Reviewed Petition for Post Grant Review of U.S. No. 10,984,447 on 10/20/2022	10/31/2022	OA

Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
G06Q	30/02 30/0261 50/01 30/0241 30/0267 30/0269 30/0251 30/0255 20/3224 30/0205 30/0207 20/322 30/0259	10/31/2022	OA
H04W	4/029 4/02 4/021 4/21 4/023 4/025 4/18	10/31/2022	OA

/OLUMIDE AJIBADE AKONAI/ Primary Examiner, Art Unit 3648	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/863,208	Hardin et al.
	Examiner	Art Unit
	OLUMIDE T AJIBADE AKONAI	3648

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	10/31/2022								
	1	✓								
	2	✓								
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	28	✓								
	29	✓								
	30	✓								

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-22)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	17863208
Filing Date	2022-07-12
First Named Inventor	Hardin, Ryan
Art Unit	3648
Examiner Name	Ajibade Akonai, Olumide
Attorney Docket Number	0075652.00009

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
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Art Unit	3648
Examiner Name	Ajibade Akonai, Olumide
Attorney Docket Number	0075652.00009

/O.A/	1	JING et al., Client-Server Computing in Mobile Environments, June 1999, ACM Computing Surveys, Vol. 31, No. 2	☐

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EXAMINER SIGNATURE

Examiner Signature	/OLUMIDE AJIBADE AKONAI/	Date Considered	10/25/2022

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
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Filing Date	2022-07-12
First Named Inventor	Hardin, Ryan
Art Unit	3648
Examiner Name	Ajibade Akonai, Olumide
Attorney Docket Number	0075652.00009

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Ryan J. Hardin/	Date (YYYY-MM-DD)	2022-10-24
Name/Print	Ryan J. Hardin	Registration Number	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-22)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
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Application Number	17863208
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First Named Inventor	Hardin, Ryan
Art Unit	3648
Examiner Name	Ajibade Akonai, Olumide
Attorney Docket Number	0075652.00009

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/O.A/	1	8010134	B2	2011-08-30	Barnes et al.	
/O.A/	2	7133685	B2	2006-11-07	Hose et al.	
/O.A/	3	7164986	B2	2007-01-16	Humphries et al.	
/O.A/	4	8536999	B2	2013-09-17	Holcman et al.	

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U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/O.A/	1	20080094256	A1	2008-04-24	Koen	

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FOREIGN PATENT DOCUMENTS

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	Attorney Docket Number	0075652.00009

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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T5
/O.A/	1	Claim Construction Order – Hardin et al. v. Samsung Elecs. Co., Ltd. et al., 2:21-cv-00290-JRG, ECF No. 86 (E.D. Tex. August 25, 2022)	☐
/O.A/	2	Exhibit 1016 - Complaint – Hardin et al. v. Samsung Elecs. Co., Ltd. et al., 2:21-cv-00290-JRG, ECF No. 1 (E.D. Tex. July 30, 2021)	☐
/O.A/	3	Petition for Inter Partes Review of U.S. Patent No. 9,779,418 - Case IPR2022-01330, August 2, 2022	☐
/O.A/	4	Declaration of David Williams ISO 418 Patent IPR Petition -1330, August 2, 2022	☐
/O.A/	5	Petition for Inter Partes Review of U.S. Patent No. 9,779,418 - Case IPR2022-01331, August 2, 2022	☐
/O.A/	6	Declaration of David Williams ISO 418 Patent IPR Petition -1331, August 2, 2022	☐
/O.A/	7	Petition for Inter Partes Review of U.S. Patent No. 9,779,418 - Case IPR2022-01332, August 2, 2022	☐
/O.A/	8	Declaration of David Williams ISO 418 Patent IPR Petition -1332, August 2, 2022	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	2022-07-12
	First Named Inventor	Hardin, Ryan
	Art Unit	3648
	Examiner Name	Ajibade Akonai, Olumide
	Attorney Docket Number	0075652.00009

/O.A/	9	Petition for Inter Partes Review of U.S. Patent No. 10,049,387 - Case IPR2022-01327, August 2, 2022	☐
/O.A/	10	Declaration of David Williams ISO 387 Patent IPR Petition -1327, August 2, 2022	☐
/O.A/	11	Petition for Inter Partes Review of U.S. Patent No. 10,049,387 - Case IPR2022-01328, August 2, 2022	☐
/O.A/	12	Declaration of David Williams ISO 387 Patent IPR Petition -1328, August 2, 2022	☐
/O.A/	13	Petition for Inter Partes Review of U.S. Patent No. 10,049,387 - Case IPR2022-01329, August 2, 2022	☐
/O.A/	14	Declaration of David Williams ISO 387 Patent IPR Petition -1329, August 2, 2022	☐
/O.A/	15	Petition for Inter Partes Review of U.S. Patent No. 10,984,447 - Case IPR2022-01333, August 2, 2022	☐
/O.A/	16	Declaration of David Williams ISO 447 Patent IPR Petition -1333, August 2, 2022	☐
/O.A/	17	Petition for Inter Partes Review of U.S. Patent No. 10,984,447 - Case IPR2022-01334, August 2, 2022	☐
/O.A/	18	Declaration of David Williams ISO 447 Patent IPR Petition -1334, August 2, 2022	☐
/O.A/	19	Petition for Inter Partes Review of U.S. Patent No. 10,984,447 - Case IPR2022-01335, August 2, 2022	☐

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	Art Unit	3648
	Examiner Name	Ajibade Akonai, Olumide
	Attorney Docket Number	0075652.00009

/O.A/	20	Declaration of David Williams ISO 447 Patent IPR Petition -1335, August 2, 2022	☐
/O.A/	21	Exhibit 1020 - Geofencing, Techopedia, https://www.techopedia.com/definition/14937/geofencing	☐
/O.A/	22	Exhibit 1021 - Jonathan P. Munson & Vineet K. Gupta, Location-Based Notification as a General-Purpose Service, Proceedings of the 2nd International Workshop on Mobile Commerce 40 (2002)	☐
/O.A/	23	Exhibit 1022 - What We Do, Locating What's Important To You, Cell-Loc, http://web.archive.org/web/20030411221815/http://cellloc.com/what_locating.html	☐
/O.A/	24	Exhibit 1023 - Alan Cohen, Location, Location, Location, PC Mag., available at https://books.google.com/books?id=elvagv988JgC&pg=PA82#v=onepage&q&f=false	☐
/O.A/	25	Exhibit 1019 - Plaintiffs' Objections And Response To Defendants' Second Set Of Interrogatories To Plaintiff, Hardin et al. v. Samsung Elecs. Co., Ltd. et al., 2:21-cv-00290-JRG, served July 1, 2022	☐
/O.A/	26	Exhibit 1029 - Defendants' Claim Construction Brief – Hardin et al. v. Samsung Elecs. Co., Ltd. et al., 2:21-cv-00290-JRG, ECF 67 (E.D. Tex. July 25, 2022)	☐
/O.A/	27	Exhibit 1028 - Plaintiffs' Claim Construction Brief – Hardin et al. v. Samsung Elecs. Co., Ltd. et al., 2:21-cv-00290-JRG, ECF 58 (E.D. Tex. July 8, 2022)	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/OLUMIDE AJIBADE AKONAI/	Date Considered	10/24/2022

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Ryan J. Hardin/	Date (YYYY-MM-DD)	2022-09-26
Name/Print	Ryan J. Hardin	Registration Number	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

From: patent.matters@pronetcorp.com
To: Aiibade-Akonai, Olumide
Subject: 17/863208 - examiner amendment request
Date: Monday, October 24, 2022 9:28:14 PM
Attachments: examiner_amendment.pdf

CAUTION: This email has originated from a source outside of USPTO. **PLEASE CONSIDER THE SOURCE** before responding, clicking on links, or opening attachments.

Dear Examiner Akonai,

There were some overlooked changes in the preliminary amendment I sent earlier today (October 24, 2022). Can you please enter the changes I noted and highlighted in the attached PDF as examiner amendments for 17/863208? They are also listed below:

- Claim 28: delete "used by " after "distinct from the at least one processor "
- Claim 28: insert "on which " after "distinct from the at least one processor "
- Claim 28: at the end of the claim, insert " executes" after the word "software" and before the period

- Claim 29: delete -- a -- after "that the mobile device has at least entered " in the request step
- Claim 29: insert "the " after "that the mobile device has at least entered " in the request step

- Claim 30: delete " delivered" after "a request to have an identifier"
- Claim 30: insert "delivered " after "being associated with a selected geographic area of interest, "
- Claim 30: delete -- a -- after "that the mobile device has at least entered" in the request step
- Claim 30: insert "the " after "that the mobile device has at least entered" in the request step
- Claim 30: delete " of the mobile device" after "reserving, in at least one memory"

Thank you!
Ryan

Ryan Hardin

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Bibliographic Data

Application No: 17/863,208

Foreign Priority claimed: (•) Yes ( ) No

35 USC 119 (a-d) conditions met: [✓] Yes [ ] No [ ] Met After Allowance

Verified and Acknowledged: /OLUMIDE AJIBADE AKONAI/ Examiner's Signature | Initials

Title: Exclusive Delivery of Content Within Geographic Areas

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
07/12/2022	705	3648	0075652.00009
RULE			

APPLICANTS

INVENTORS

Ryan Hardin, Henderson, TX, UNITED STATES

Andrew Hill, Houston, TX, UNITED STATES

CONTINUING DATA

This application is a CON of 17182809 02/23/2021

17182809 is a CON of 16019285 06/26/2018 PAT 10984447

16019285 is a CON of 15694786 09/02/2017 PAT 10049387

15694786 is a CON of 15009961 01/29/2016 PAT 9779418

15009961 is a CON of 14608285 01/29/2015 PAT 9286625

14608285 is a CON of 13856392 04/03/2013 PAT 8977247

13856392 is a CON of 12434094 05/01/2009 PAT 8433296

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

07/21/2022

STATE OR COUNTRY

UNITED STATES

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FILING FEE RECEIVED

$3,740

17863208

Report Run Date: 2022-10-31 UTC
Searches: 4
Markers: 0

Home Depot - Exhibit 1026 - Page 668

Search #	Timestamp	Results	Page
1	2022-10-31 12:42 UTC	13,050,822	3
2	2022-10-31 12:43 UTC	6,492,014	4
3	2022-10-31 12:48 UTC	13,282,685	4
4	2022-10-31 12:50 UTC	7,344,346	4

Content: Patents + NPL (190)

US Patents | US Designs | US Applications | EPO Patents | EPO Applications | China Patents | China Applications | Japan Patents | Japan Applications | Korea Patents | Korea Applications | WIPO Applications | Argentina Patents | Argentina Applications | Brazil Patents | Brazil Applications | Canada Patents | Canada Applications | Chile Patents | Chile Applications | Colombia Applications | Costa Rica Applications | Cuba Patents | Cuba Applications | Dominican Republic Applications | Ecuador Patents | Ecuador Applications | El Salvador Applications | Guatemala Applications | Honduras Applications | Mexico Patents | Mexico Applications | Nicaragua Patents | Panama Applications | Peru Applications | Trinidad & Tobago Patents | Uruguay Applications | Austria Patents | Austria Applications | Belarus Patents | Belgium Patents | Belgium Applications | Bosnia & Herzegovina Patents | Bosnia & Herzegovina Applications | Bulgaria Patents | Bulgaria Applications | Croatia Patents | Croatia Applications | Czech Republic Patents | Czech Republic Applications | Czechoslovakia Patents | Czechoslovakia Applications | Denmark Patents | Denmark Applications | Estonia Patents | Estonia Applications | EUIPO Patents | Finland Patents | Finland Applications | France Patents | France Applications | Germany Patents | Germany Applications | Great Britain Patents | Great Britain Applications | Greece Patents | Greece Applications | Hungary Patents | Hungary Applications | Iceland Patents | Iceland Applications | Ireland Patents | Ireland Applications | Italy Patents | Italy Applications | Latvia Patents | Latvia Applications | Lithuania Patents | Lithuania Applications | Luxembourg Patents | Malta Patents | Monaco Patents | Montenegro Patents | Montenegro Applications | Netherlands Patents | Netherlands Applications | Norway Patents | Norway Applications | Poland Patents | Poland Applications | Portugal Patents | Portugal Applications | Republic of Moldova Patents | Republic of Moldova Applications | Romania Patents | Romania Applications | San Marino Patents | San Marino Applications | Serbia Patents | Serbia Applications | Slovakia Patents | Slovakia Applications | Slovenia Patents | Spain Patents | Spain Applications | Sweden Patents | Sweden Applications | Switzerland Patents | Switzerland Applications | Ukraine Patents | Yugoslavia/Serbia and Montenegro Patents | Yugoslavia/Serbia and Montenegro Applications | Armenia Patents | Australia Patents | Australia Applications | Cyprus Patents | Gulf Cooperation Council Patents | Hong Kong Patents | India Patents | India Applications | Indonesia Patents | Indonesia Applications | Israel Applications | Jordan Patents | Jordan Applications | Kyrgyzstan Patents | Macao Applications | Malaysia Patents | Mongolia Patents | New Zealand Patents | Philippines Patents | Philippines Applications | Saudi Arabia Patents | Saudi Arabia Applications | Singapore Patents | Singapore Applications | Taiwan Patents | Taiwan Applications | Tajikistan Patents | Tajikistan Applications | Thailand Patents | Thailand Applications | Uzbekistan Patents | Vietnam Patents | Algeria Patents | ARIPO Patents | ARIPO Applications | Egypt Patents | Kenya Patents | Malawi Patents | Morocco Patents | Morocco Applications | OAPI Patents | South Africa Patents | Tunisia Applications | Zambia Patents | Zimbabwe Patents | EAPO Patents | EAPO Applications | Georgia Patents | Georgia Applications | Kazakhstan Patents | Kazakhstan Applications | Russia Patents | Russia Applications | Turkey Patents | Turkey Applications | IEEE Xplore Publications: IEEE Periodicals | IEEE Xplore Publications: IEEE Conferences | IEEE Xplore Publications: IEEE Standards | IEEE Xplore Publications: IEEE Early Access | IEEE Xplore Publications: SMPTE Periodicals | IEEE Xplore Publications: SMPTE Conferences | IEEE Xplore Publications: SMPTE Standards | IEEE Xplore Publications: MIT Press eBooks | IEEE Xplore Publications: Wiley-IEEE eBooks | IEEE Xplore Publications: IBM Periodicals | IEEE Xplore Publications: URSI Periodicals | IEEE Xplore Publications: VDE Conferences | IEEE Xplore Publications: Periodicals from China | IP.com Prior Art Database: The IP.com Journal | IP.com Prior Art Database: Internet Society RFC | IP.com Prior Art Database: IBM TDB Archive | IP.com Prior Art Database: Legacy Journals | IP.com Prior Art Database: Software Patent Institute | OnePetro.org: Periodicals at OnePetro.org | OnePetro.org: Conferences at OnePetro.org | Other Literature: IBM Redbooks | Other Literature: PubMed Central | Other Literature: arXiv.org

1 **2022-10-31 12:42 UTC | 13,050,822 results from**

De-Dup: None | **Cut-off:** None | **Sort:** Relevance

Main Concept: Document

US10984447 Exclusive delivery of content within geographic areas (view)

Concept Modifiers: None

Filters: None

2 **2022-10-31 12:43 UTC | 6,492,014 results from**

De-Dup: None | **Cut-off:** None | **Sort:** Relevance

Main Concept: Same as Search 1

Concept Modifiers (1):
1. More Like Text: advertisement advertising application advertise delivery geographic mobile mobile device phone sponsor wireless location query retrieve route send

Filters: None

3 **2022-10-31 12:48 UTC | 13,282,685 results from**

De-Dup: None | **Cut-off:** None | **Sort:** Relevance

Main Concept: Text
location time period program advertisement server register

Concept Modifiers: Same as Search 2

Filters: None

4 **2022-10-31 12:50 UTC | 7,344,346 results from**

De-Dup: None | **Cut-off:** None | **Sort:** Relevance

Main Concept: Same as Search 3

Concept Modifiers (2):
2. More Like Text: query advertise application mobile device mobile wireless route retrieve ads
1. More Like Text: advertisement advertising application advertise delivery geographic mobile mobile device phone sponsor wireless location query retrieve route send

Filters: None

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	26934	(request$3 solicit$5) SAME (advert content coupon ad) SAME (location position located within) WITH (zone area section geo$1fence boundary) SAME (application app)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/20 02:42 PM
L2	12751	L1 AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/20 02:43 PM
L3	1604	L1 AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20 02:43 PM
L4	8004	(request$3 solicit$5) SAME (advert content coupon ad) SAME (location position located within) WITH (zone area section geo$1fence boundary) SAME (application app) SAME (((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/20 02:46 PM
L5	273	L4 AND	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20

		(@ad<="20090501" OR @rlad<="20090501")					02:46 PM
L6	55	(sponsor advertiser) WITH (request$3 solicit$5) SAME (advert advertisement content coupon ad) SAME (location position located within coordinate$1) WITH (zone area section geo$1fence boundary) SAME (application app program) AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20 02:50 PM
L7	584	(sponsor advertiser) SAME (advert advertisement content coupon ad) SAME (location position located within coordinate$1) WITH (zone area section geo$1fence boundary) SAME (application app program) AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20 04:21 PM
L8	0	(sponsor advertiser) SAME (advert advertisement content coupon ad) SAME (location position located within coordinate$1) WITH (zone area section geo$1fence boundary) SAME (application app program) AND (H04W.cpc. OR G06Q.cpc.)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20 04:21 PM
L9	0	(sponsor advertiser) SAME (advert advertisement content coupon ad) SAME (location position located within coordinate$1) WITH (zone area section geo$1fence boundary) SAME (application app program) AND (H04W/$.cpc. OR G06Q/$.cpc.)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20 04:22 PM
L10	1497	(sponsor advertiser)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20

		SAME (advert advertisement content coupon ad) SAME (location position located within coordinate$1) WITH (zone area section geo$1fence boundary) SAME (application app program) AND (H04W$.cpc. OR G06Q$.cpc.)					04:22 PM
L11	1216	(request$3 solicit$5) SAME (advert content coupon ad) SAME (location position located within) WITH (zone area section geo$1fence boundary) SAME (application app) SAME (((wireless mobile portable cellular RF hand$1held hand) ADJ (phone node$1 telephone device equipment apparatus user unit subscriber radio terminal station)) OR radio$1phone OR radio$1telephone OR cell$1phone OR (terminal ADJ (unit equipment)) OR telephone OR hand$2phone OR hand$1set OR (subscriber ADJ (unit$1 terminal$1)) OR (user ADJ equipment) MCU WCD PDA "mobile communication device" "wireless communication device" "mobile communication unit" "personal digital assistant" WTRU (subscriber NEAR station$1) smart$1phone$1 "portable communication device" "portable communication unit" "wireless communication device" laptop tablet "UE" "user equipment") AND (H04W$.cpc. OR	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20 04:24 PM

		G06Q$.cpc.)					
L12	281	L11 AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/20 04:24 PM
L13	10696	(sponsor advertiser business) SAME (request$3 solicit$5 delivery instruct$4) SAME (advert advertisement content coupon ad) SAME (location position located within coordinate$1) WITH (zone area section geo$1fence boundary) SAME (application app program)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 11:56 AM
L14	3055	L13 AND ((G06Q30/02 OR G06Q30/0261 OR G06Q50/01 OR G06Q30/0241 OR G06Q30/0267 OR G06Q30/0269 OR G06Q30/0251 OR G06Q30/0255 OR G06Q20/3224 OR G06Q30/0205 OR H04W4/029 OR H04W4/02 OR H04W4/021 OR H04W4/21 OR H04W4/023 OR H04W4/025 OR H04W4/18).cpc.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 11:58 AM
L15	1099	L13 AND ((G06Q30/02 OR G06Q30/0261 OR G06Q50/01 OR G06Q30/0241 OR G06Q30/0267 OR G06Q30/0269 OR G06Q30/0251 OR G06Q30/0255 OR G06Q20/3224 OR G06Q30/0205 OR H04W4/029 OR H04W4/02 OR H04W4/021 OR H04W4/21 OR H04W4/023 OR H04W4/025 OR H04W4/18).cpc.) AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 12:04 PM

L16	1377	(sponsor advertiser business) WITH (request$3 solicit$5 instruct$4) WITH (advert advertisement content coupon ad) SAME (location position located within coordinate$1) WITH (zone area section geo$1fence boundary) SAME (application app program)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 12:05 PM
L17	250	L16 AND ((G06Q30/02 OR G06Q30/0261 OR G06Q50/01 OR G06Q30/0241 OR G06Q30/0267 OR G06Q30/0269 OR G06Q30/0251 OR G06Q30/0255 OR G06Q20/3224 OR G06Q30/0205 OR H04W4/029 OR H04W4/02 OR H04W4/021 OR H04W4/21 OR H04W4/023 OR H04W4/025 OR H04W4/18).cpc.) AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 12:05 PM
L18	1	("20060212179").PN.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 12:38 PM
L19	4	("20030198346"|"20060136292"|"20090197582"|"20100130179").PN.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 12:40 PM
L20	303	(sponsor$1 advertiser business$2) WITH (request$3 solicit$5 instruct$4 register$3 registration) near5 (server manager platform system) WITH (advert advertisement content coupon ad promotion$1 coupon$1) SAME (zone area section geo$1fence boundary perimeter) SAME ((specific mobile device phone) near3 (application app program))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 01:04 PM

L21	3378	(sponsor$1 advertiser business$2) SAME (server manager platform system) WITH (advert advertisement content coupon ad promotion$1 coupon$1) SAME (location coordinates zone area section geo$1fence boundary perimeter) SAME ((download$4 install$5) near3 (application app program))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 01:10 PM
L22	97	L21 AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 01:10 PM
L23	606	(sponsor$1 advertiser business$2) WITH (request$3 solicit$5 instruct$4 register$3 registration) WITH (advert advertisement content coupon ad promotion$1 coupon$1) WITH (geographic zone area section geo$1fence boundary perimeter) SAME ((specific mobile device phone particular) near3 (application app program))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 01:37 PM
L24	44	L23 AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 01:38 PM
L25	6761	(sponsor$1 advertiser business$2) SAME server SAME (advert advertisement content coupon ad promotion$1 coupon$1) WITH (geographic zone area section geo$1fence boundary perimeter GPS coordinates) SAME (time period) AND ((specific mobile device phone particular) near3 (application app program))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 01:44 PM
L26	620	L25 AND (@ad<="20090501" OR	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 01:44 PM

		@rlad<="20090501")					
L27	2687	L26 NOT (L24 OR L22 OR L20 OR L17 OR L12 OR L6 OR L5)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 01:45 PM
L28	578	L26 NOT (L24 OR L22 OR L20 OR L17 OR L12 OR L6 OR L5)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 01:45 PM
L29	112	(sponsor$1 advertiser business$2) SAME server SAME (advert advertisement content coupon ad promotion$1 coupon$1) WITH geo$1cod$3 SAME (geographic zone area section geo$1fence boundary perimeter GPS coordinates)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 02:01 PM
L30	1	"12144538"	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 02:05 PM
L31	2117	(sponsor advertiser business) WITH (request$3 solicit$5 instruct$4 register$3 registration) near5 (advert advertisement content coupon ad) SAME (location position located within coordinate$1 GPS) WITH (zone area section geo$1fence boundary perimeter)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 02:25 PM
L32	194	L31 AND (((@ad<="20090501"	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 02:26 PM

		OR @rlad<="20090501"))					
L33	9387	(sponsor$1 advertiser business$2) SAME (register$3 registration request$3) SAME server SAME (advert advertisement content coupon ad promotion$1 coupon$1) SAME (geo$1cod$3 geographic zone area section geo$1fence boundary perimeter GPS coordinates) SAME (((mobile wireless cellular portable) near2 (device terminal phone unit)) smartphone cellphone PDA WTRU "user equipment" WCD)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/24 08:31 PM
L34	214	L33 AND (((@ad<="20090501" OR @rlad<="20090501"))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 08:32 PM
L35	3124	(Location entry within) SAME (area zone bondary geo$1fence) WITH (time period) SAME (ad advert coupon) SAME (((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/25 02:32 PM
L36	278	L35 AND (((@ad<="20090501" OR @rlad<="20090501"))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/25 02:33 PM
L37	269	(((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone) SAME (area zone bondary geo$1fence) WITH (time period) WITH threshold$3 SAME (ad advert advertisement	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL,	OR	ON	ON	2022/10/25 05:36 PM

		coupon)	PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L38	5	L37 AND (((@ad<="20090501" OR @rlad<="20090501"))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/25 05:37 PM
L39	3136	(((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone) SAME (area zone bondary geo$1fence place location) WITH (remain$2 within) WITH (time period) SAME (ad advert advertisement coupon)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/25 07:32 PM
L40	573	L39 AND ((G06Q30/02 OR G06Q30/0261 OR G06Q50/01 OR G06Q30/0241 OR G06Q30/0267 OR G06Q30/0269 OR G06Q30/0251 OR G06Q30/0255 OR G06Q20/3224 OR G06Q30/0205 OR H04W4/029 OR H04W4/02 OR H04W4/021 OR H04W4/21 OR H04W4/023 OR H04W4/025 OR H04W4/18).cpc.) AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/25 07:32 PM
L41	95	(((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone smartphone cellphone phone) SAME (area zone bondary geo$1fence) WITH (remain$3 within stay$3) WITH (time seconds period interval)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2022/10/26 10:44 AM

		WITH threshold SAME (ad advert advertisement coupon)	TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L42	99	location near5 (advertising advertisement) SAME (area zone bondary geo$1fence) WITH (remain$3 within stay$3) WITH (time seconds period interval) AND (455/$.ccls. OR 705/$.ccls.)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/26 10:47 AM
L43	2983	(((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone vehicle smartphone phone) SAME (area zone boundary geo$1fence place location) SAME (remain$2 within stay$3) WITH (time period interval) SAME (threshold exceed$4 expir$5) SAME (ad advert advertisement coupon)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/26 11:00 AM
L44	1366	(((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone vehicle smartphone phone) SAME (area zone boundary geo$1fence place location) SAME (remain$2 within stay$3) WITH (time period interval) SAME (threshold exceed$4 expir$5) SAME (transmit$4 send sent provid$3) WITH (ad advert advertisement coupon)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/26 11:00 AM
L45	538	L44 AND ((G06Q30/02 OR G06Q30/0267 OR G06Q30/0207 OR	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY,	OR	ON	ON	2022/10/26 11:03 AM

		G06Q30/0261 OR G06Q20/322 OR G06Q30/0259 OR G06Q30/0205 OR G06Q30/0241 OR G06Q30/0251 OR H04W4/029 OR H04W4/02 OR H04W4/021 OR H04W4/023 OR H04W4/23).cpc.)	CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L46	85	L45 AND (((@ad<="20090501" OR @rlad<="20090501"))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26 11:12 AM
L47	153	location$1based near5 (ad adverts advertis$6) SAME (((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone vehicle smartphone phone) SAME (area zone boundary geo$1fence place location) SAME (remain$2 within stay$3) WITH (time period interval)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/26 11:38 AM
L48	5	(US-17863208-$ | US-20080094256-$ | US-7133685-$ | US-7164986-$ | US-8010134-$ | US-8536999-$).DID.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26 11:42 AM
L49	8464	(ad adverts advertis$6) SAME (((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone vehicle smartphone phone) SAME (area zone boundary geo$1fence building sector) SAME (exceed$4 more after threshold) near5 (time period interval)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/26 12:12 PM
L50	1085	(ad adverts advertis$6)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26

		SAME (((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone vehicle smartphone phone) SAME (area zone boundary geo$1fence building sector) SAME (exceed$4 more after threshold) near5 (time period interval)					12:12 PM
L51	343	L50 AND (((@ad<="20090501" OR @rlad<="20090501"))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26 12:13 PM
L52	282	L51 NOT (L24 OR L22 OR L20 OR L17 OR L12 OR L6 OR L5)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26 12:14 PM
L53	567	(ad adverts advertis$6) SAME (((mobile wireless cellular portable) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone vehicle smartphone phone) SAME (area zone boundary geo$1fence building sector) SAME (pre$1set pre$1defined predetermined) near4 (time period interval)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26 12:33 PM
L54	210	L53 AND (((@ad<="20090501" OR @rlad<="20090501"))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26 12:33 PM
L55	50	(send$3 sent transmit$4 target$3) near5 (ad adverts advertis$6 promition$1 recommendation$) SAME (((mobile wireless cellular portable handheld) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone vehicle smartphone phone vehicle automobile) SAME (area zone boundary geo$1fence building) WITH (pre$1set pre$1defined	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26 12:47 PM

		predetermined) near4 (time period interval)					
L56	122	(ad adverts advertis$6 promition$1 recommendation$) SAME (((mobile wireless cellular portable handheld) near2 (device phone terminal unit)) PDA WTRU WCD cell$1phone vehicle smartphone phone vehicle automobile) WITH (area zone boundary geo$1fence building geographic cell) WITH (pre$1set pre$1defined predetermined) near4 (time near3 (period interval))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/26 12:51 PM
L57	38	server WITH (notif$7 confirm$5 affirm$5) WITH (register$3 registration reserv$5) WITH (location position area zone boundary perimeter geo$1fence) WITH (advertisment ad advert promotion$2) WITH (sponsor advertiser)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/28 09:30 AM
L58	698	server SAME (notif$7 confirm$5 affirm$5) SAME (register$3 registration reserv$5) SAME (location position area zone boundary perimeter geo$1fence) SAME (advertisment ad advert promotion$2) SAME (sponsor advertiser)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/28 09:39 AM
L59	38	server SAME (notif$7 confirm$5 affirm$5) SAME (register$3	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/28 09:39 AM

		registration reserv$5) SAME (location position area zone boundary perimeter geo$1fence) SAME (advertisment ad advert promotion$2) SAME (sponsor advertiser)					
L60	17349	(ad adverts advertis$6) SAME (((mobile wireless cellular portable) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone) SAME (authenticat$3 validat$3 authori$6 verif$7) SAME server	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/28 02:03 PM
L61	82	(ad adverts advertis$6) SAME (((mobile wireless cellular portable) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone) near5(authenticat$3 validat$3 authori$6 verif$7) near5 key near6 server	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/28 02:03 PM
L62	437	(((mobile wireless cellular portable) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone) SAME (authenticat$3 validat$3 authori$6 verif$7) near5 key near6 ((ad advertisement content) near3 server)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/28 02:06 PM
L63	87	(((mobile wireless	(US-PGPUB; USPAT;	OR	ON	ON	2022/10/28

		cellular portable) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone) SAME (authenticat$3 validat$3 authori$6 verif$7) near5 key near6 ((ad advertisement content) near3 server) AND (ad adverts advertis$6 promotion$3 coupon)	USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				02:06 PM
L64	72	L63 NOT L61	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/28 02:07 PM
L65	2907	(((mobile wireless cellular portable) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone) AND ((authenticat$3 validat$3 authori$6 verif$7) near3 key) WITH ((ad advertisement content) near3 server)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/28 02:23 PM
L66	400	L65 AND (((@ad<="20090501" OR @rlad<="20090501"))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/28 02:24 PM
L67	601	((authenticat$3 validat$3 authori$6 verif$7) near3 key) WITH ((ad advertisement content) near3 server) AND	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/28 03:35 PM

		(((@ad<="20090501" OR @rlad<="20090501"))					
L68	155	((auhenticat$3 validat$3 authori$6 verif$7) near3 key) WITH ((provid$3 send$3 sent) near3 (ad advertisement content)) SAME server AND (@ad<="20090501" OR @rlad<="20090501")	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/28 03:39 PM
L69	8	(((mobile wireless cellular portable handheld) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone handyphone "personal communication device") SAME ((auhenticat$3 validat$3 authori$6 verif$7) near3 key) WITH ((ad advertisement content) NEAR server)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/28 07:27 PM
L70	67	(((mobile wireless cellular portable handheld) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone handyphone "personal communication device") SAME ((auhenticat$3 validat$3 authori$6 verif$7) near3 key) SAME ((ad advertisement content) near2 server)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/28 07:28 PM
L71	4	(((mobile wireless cellular portable handheld) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone handyphone "personal communication device") SAME ((auhenticat$3 validat$3 authori$6 verif$7) near3 key) SAME ((ad advertisement content) near2 server) SAME (advertisement$1 ads	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/28 07:29 PM

		promotion$3)					
L72	33	(((mobile wireless cellular portable handheld) near2 (device phone terminal unit client)) PDA WTRU WCD cell$1phone smartphone phone handyphone "personal communication device" "user equipment") SAME ((auhenticat$3 validat$3 authori$6 verif$7) near3 key) SAME ((ad advertisement content) near2 server) AND (advertisement$1 ads promotion$3)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/28 07:29 PM
L73	407	((auhenticat$3 validat$3 authori$6 verif$7) near3 key) WITH ((ad advertisement content) near3 server)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/29 03:35 PM
L74	223	L73 AND (((@ad<="20090501" OR @rlad<="20090501"))	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/29 03:36 PM
L75	22	((auhenticat$3 validat$3 authori$6 verif$7) near3 key) WITH ((ad advertisement) near2 server)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/29 08:46 PM
L76	426	((("HARDIN") near3 ("Ryan")) OR (("HILL") near3 ("Andrew"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2022/10/31 08:32 AM
L77	350	L76 NOT KLA.as.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/31 08:33 AM
L78	298	L76 NOT KLA.as.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/31 08:33 AM
L79	91	L76 AND	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/31

		(((@ad<="20090501" OR @rlad<="20090501"))					08:33 AM
L80	14	L79 AND ((G06Q30/02 OR G06Q30/0267 OR G06Q30/0207 OR G06Q30/0261 OR G06Q20/322 OR G06Q30/0259 OR G06Q30/0205 OR G06Q30/0241 OR G06Q30/0251 OR H04W4/029 OR H04W4/02 OR H04W4/021 OR H04W4/023 OR H04W4/23).cpc.)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/31 08:34 AM
L81	32	("6810323" | "6847888" | "6867733" | "7009556" | "7080402" | "7089264" | "7096117" | "7103368" | "7124370" | "7200673" | "7207802" | "7219303" | "7814106" | "20030064705" | "20030198346" | "20040214550" | "20040220906" | "20040253965" | "20060064346" | "20070185768" | "20080004952" | "20080098420" | "20080154728" | "20080162032" | "20080163073" | "20080215524" | "20080262897" | "20080307498" | "20080313039" | "20090024476" | "20090063424" | "20100312646").pn. OR ("8977247").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/10/31 08:36 AM
L82	235	("6526275" | "6647257" | "6754485").pn. OR ("7103368").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/10/31 08:39 AM
L83	48	("6810323" | "6847888" | "6867733" | "7009556" | "7080402" | "7089264"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/10/31 08:40 AM

		| "7096117" | "7103368" | "7124370" | "7200673" | "7207802" | "7219303" | "7814106" | "7848765" | "8403755" | "8942995" | "9251520" | "9373116" | "20020142844" | "20030064705" | "20030101454" | "20030198346" | "20040214550" | "20040220906" | "20040253965" | "20060064346" | "20060136292" | "20060136297" | "20070112741" | "20070185768" | "20070214180" | "20080004952" | "20080098420" | "20080154728" | "20080162032" | "20080163073" | "20080215524" | "20080262897" | "20080307498" | "20080313039" | "20090024476" | "20090029721" | "20090063424" | "20090131080" | "20090197582" | "20100075697" | "20100130179" | "20100312646").pn. OR ("10984447").urpn. AND (PGPB | USPT | USOC).dbnm.						

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	1	(content AND delivery AND platform AND program AND geographic AND reservation AND identifier AND mobile AND device).clm. AND ((G06Q30/02 OR G06Q30/0261 OR G06Q50/01 OR G06Q30/0241 OR G06Q30/0267 OR G06Q30/0269 OR	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/31 08:55 AM

		G06Q30/0251 OR G06Q30/0255 OR G06Q20/3224 OR G06Q30/0205 OR H04W4/029 OR H04W4/02 OR H04W4/021 OR H04W4/21 OR H04W4/023 OR H04W4/025 OR H04W4/18).cpc.)					

PE2E SEARCH - Search History (Similarity Search)

No Similarity Results available

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/863,208	07/12/2022	Ryan Hardin	0075652.00009

CONFIRMATION NO. 2712

118653
Ryan Hardin
P.O. BOX 271861
Houston, TX 77277

PUBLICATION NOTICE

OC00000136750516

Title: Exclusive Delivery of Content Within Geographic Areas

Publication No.US-2022-0351245-A1
Publication Date:11/03/2022

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Certification Under 37 C.F.R. 1.8

Date of Mailing or Transmission: 29 October 2022. I hereby certify that I have caused this correspondence and/or document(s) indicated herein on the date indicated above to be transmitted via the Office electronic filing system in accordance with 37 C.F.R Sec. 1.6(a)(4).

BY: /Ryan J. Hardin/ (Signature) Name: Ryan J. Hardin (Typed Name)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Ryan Hardin
Application No.: 17/863,208
Filing Date: 12 July 2022
Examiner: Ajibade Akonai, Olumide
Group Art Unit: 3648
Docket No.: 0075652.00009
Title: EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS

NOTICE TO EXAMINER

Date: 29 October 2022

EFS-Web
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As explained below, the Applicants request that the Examiner temporarily postpone the examination of the Instant Application.

The Examiner should be advised that the applicants ("the Applicants") of the above-referenced application ("the Instant Application") will be providing information to the Office on or before November 9, 2022, in response to one or more petitions for *inter partes* review filed against one or more issued patents having patent applications on which the Instant Application may claim priority.

For record in the Instant Application, the Applicants hereby inform the Examiner that **references** associated with the aforementioned response **may soon be submitted in an Information Disclosure Statement ("IDS")**, in accordance with 37 C.F.R §§ 1.97-1.98 and in compliance with the duty of candor and good faith to disclose all information known to be material to patentability under 37 C.F.R. § 1.56.

Home Depot - Exhibit 1026 - Page 693

As such, **the Applicants respectfully request that the Examiner temporarily postpone the examination of the Instant Application, as outlined below**.

The Applicants understand the importance of efficiency; thus, the Applicants commit to the following so that the examination may resume in a timely manner:

- If any references will be provided in an IDS, **the Applicants will provide those references and inform the Examiner no later than November 12, 2022** (only two (2) weeks from today). As soon as the Applicants provide such references and inform the Examiner, the Applicants request that the Examiner resume the examination at that time.
- However, if the Applicants do not provide any references by November 13, 2022, the Applicants request that the Examiner resume the examination at that time.

This letter is being filed, and this request is being made, prior to the mailing of a first office action on the merits with regard to the Instant Application. If the Examiner has any questions pursuant to this request, the Applicants invite the Examiner to contact the undersigned at 903.702.5420 at the Examiner's convenience.

Respectfully Submitted,
By: /Ryan J. Hardin/
Ryan J. Hardin
Pro se and joint inventor

Ryan Hardin
P.O. Box 271861
Houston, Texas 77277

Telephone: 903.702.5420
Email: patent.matters@pronetcorp.com

Electronic Acknowledgement Receipt

EFS ID:	46921093
Application Number:	17863208
International Application Number:	
Confirmation Number:	2712
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Customer Number:	118653
Filer:	Ryan J Hardin
Filer Authorized By:	
Attorney Docket Number:	0075652.00009
Receipt Date:	29-OCT-2022
Filing Date:	12-JUL-2022
Time Stamp:	23:57:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	20221029_LetterToExaminer.pdf	187738 f463fb87067871288b416762b244ee8478f33660	no	2

Warnings:

Information:	
Total Files Size (in bytes):	187738

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/08a (01-22)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	17863208
Filing Date	2022-07-12
First Named Inventor	Hardin, Ryan
Art Unit	3648
Examiner Name	Ajibade Akonai, Olumide
Attorney Docket Number	0075652.00009

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17863208
	Filing Date	2022-07-12
	First Named Inventor	Hardin, Ryan
	Art Unit	3648
	Examiner Name	Ajibade Akonai, Olumide
	Attorney Docket Number	0075652.00009

	1	JING et al., Client-Server Computing in Mobile Environments, June 1999, ACM Computing Surveys, Vol. 31, No. 2	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17863208
	Filing Date	2022-07-12
	First Named Inventor	Hardin, Ryan
	Art Unit	3648
	Examiner Name	Ajibade Akonai, Olumide
	Attorney Docket Number	0075652.00009

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Ryan J. Hardin/	Date (YYYY-MM-DD)	2022-10-24
Name/Print	Ryan J. Hardin	Registration Number	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Certification Under 37 CFR 1.8

Date of Mailing or Transmission: 24 October 2022. I hereby certify that I have caused this correspondence and/or document(s) indicated herein on the date indicated above to be transmitted via the Office electronic filing system in accordance with 37 CFR 1.6(a)(4).

BY: /Ryan J. Hardin/ (Signature) Name: Ryan J. Hardin (Typed Name)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ryan Hardin et al.
Application No.: 17/863,208
Filing Date: 12 July 2022
Examiner: Ajibade Akonai, Olumide
Group Art Unit: 3648
Docket No.: 0075652.00009
Title: Exclusive Delivery of Content Within Geographic Areas

PRELIMINARY AMENDMENT UNDER 37 CFR 1.115

Date: 24 October 2022

EFS-Web
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

This Preliminary Amendment is being filed under 37 CFR 1.115 and is being filed prior to the mailing of a first Office action on the merits with regard to the above-identified patent application ("the Instant Application"). The applicants ("the Applicants") of the Instant Application respectfully request that the Instant Application be amended as outlined herein.

Amendment in the Claims begin on page 2 of this correspondence;

Remarks begin on page 12 of this correspondence; and

Conclusions begin on page 14 of this correspondence.

Home Depot - Exhibit 1026 - Page 701

AMENDMENTS IN THE CLAIMS

Please amend the claims as follows. This listing of the claims will replace all prior versions, and listings, of the claims in the Instant Application.

1. (Currently Amended) A system for creating and offloading location awareness, the system including a mobile device and comprising:

at least one memory;

at least one processor operably coupled to the at least one memory; and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

sending, to ~~a~~ content delivery platform software~~service~~:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; and

receiving, via the computer program, the identifier delivered by the content delivery platform software ~~service~~ after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest.

2. (Currently Amended) The system of claim 1, wherein the code further comprises at least one instruction for, in response to receiving, via the computer program, the identifier

delivered by the content delivery platform software~~service~~, displaying, via a connected display device, content associated with the selected geographic area of interest.

3. (Currently Amended) The system of claim 1, wherein:
   the code further comprises at least one instruction for sending~~, via the computer program,~~ the identifier to the content delivery platform software~~service~~; and
   the computer program is an application program.

4. (Original) The system of claim 1, wherein:
   the geometric construct comprises at least a latitude value, a longitude value, and a radius value; and
   the geographic reservation data further comprises information indicating an area bounded by the at least one perimeter as the selected geographic area of interest.

5. (Currently Amended) The system of claim 4, wherein:
   the selected geographic area of interest is a first selected geographic area of interest; and
   the code further comprises at least one instruction for sending, to the content delivery platform software, ~~service~~ a second request to have an identifier, being associated with a second selected geographic area of interest, delivered to the computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest, wherein the second selected geographic area of interest is distinct from the first selected geographic area of interest.

6. (Currently Amended) The system of claim 1, wherein the identifier delivered by the content delivery platform software ~~service~~ is a boundary identifier.

7. (Currently Amended) The system of claim 6, wherein:
   receiving, via the computer program, the identifier delivered by the content delivery platform software ~~service~~ comprises receiving the identifier after it has been

determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time.

8. (Currently Amended) The system of claim 7, wherein the predetermined length of time is not a predetermined length of time provided to the content delivery platform software ~~service by the~~ in connection with a particular request to have an identifier delivered to a computer program on the mobile device after it has been determined that the mobile device has at least entered a selected geographic area of interest and has remained therein for at least the predetermined length of time but is a predetermined length of time set by the content delivery platform software~~service~~.

9. (Previously Presented) The system of claim 1, wherein the identifier is to be delivered exclusively to the computer program and not to be broadcast to other computer programs on the mobile device.

10. (Currently Amended) A system for creating and offloading location awareness, the system including a mobile device and comprising:

at least one memory;

at least one processor operably coupled to the at least one memory; and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

receiving, via ~~a~~ content delivery platform software~~service~~:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer

program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest;

reserving, in the at least one memory, the selected geographic area of interest for delivery of the identifier to the computer program;

obtaining location information representing at least one physical geographic location of the mobile device; and

delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

11. (Currently Amended) The system of claim 10, wherein the code further comprises at least one instruction for:

sending, to the content delivery platform software, ~~service~~ the request and the geographic reservation data; and

receiving, via the computer program, the identifier in response to the delivering.

12. (Currently Amended) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving the identifier via the content delivery platform software~~service~~; and

in response to receiving the identifier via the content delivery platform software~~service~~, storing, in the at least one memory, the identifier; and

delivering the identifier to the computer program comprises delivering the identifier from the at least one memory.

13. (Original) The system of claim 10, wherein delivering the identifier to the computer program comprises delivering the identifier after it has been determined that the mobile device has at least remained within the selected geographic area of interest for at least a predetermined length of time.

14. (Original) The system of claim 12, wherein the code further comprises at least one instruction for:

preserving delivery of the identifier from the at least one memory to the computer program until after it has been determined that the mobile device has remained within the selected geographic area of interest for at least a predetermined length of time.

15. (Currently Amended) The system of claim 10[[12]], wherein[[:]] the ~~code further comprises at least one instruction for sending, to the~~ content delivery platform software resides in the mobile device~~service, the identifier; and receiving the identifier via the content delivery service comprises receiving the identifier via the content delivery service from the computer program~~.

16. (Original) The system of claim 10, wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

17. (Original) The system of claim 10, wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time.

18. (Original) The system of claim 10, wherein the code further comprises at least one instruction for creating a notification that the mobile device has at least entered the selected geographic area of interest.

19. (Previously Presented) The system of claim 10, wherein:

reserving the selected geographic area of interest for delivery of the identifier to the computer program comprises reserving the selected geographic area of interest only after it has been determined that the selected geographic area of interest is available to be reserved; and

the code further comprises at least one instruction for sending a notification indicating that the selected geographic area of interest has been reserved.

20. (Original) The system of claim 16, wherein the determining considers whether at least a predetermined portion of the selected geographic area of interest intersects the mobile device's location circle, wherein the location circle comprises the area contained within a predetermined radius of the geographic location of the mobile device.

21. (Original) The system of claim 10, wherein the code further comprises at least one instruction for:

storing, on the mobile device, location information received from one or more mobile devices, wherein the location information received from the one or more mobile devices is received by the one or more mobile devices from one or more third party sources and is to be used, in combination with cellular tower information received via an antenna of the mobile device, for positioning the geographic location of the mobile device; and

using the stored location information received from the one or more mobile devices, in combination with cellular tower information received via an antenna of the mobile device operable to communicate with a cellular network, to position the geographic location of the mobile device.

22. (Currently Amended) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving, via the content delivery platform software~~service~~:

a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to a second computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest; and

second geographic reservation data to have the second selected geographic area of interest reserved for delivery of the second identifier to the second computer program, wherein the second

geographic reservation data comprises a second geometric construct used to establish at least one perimeter as a boundary for the second selected geographic area of interest;

reserving, in the at least one memory, the second selected geographic area of interest for delivery of the second identifier to the second computer program; and

delivering the second identifier to the second computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the second selected geographic area of interest.

23. (Currently Amended) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving, via the content delivery platform software~~service~~:

a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to the computer program after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest; and

second geographic reservation data to have the second selected geographic area of interest reserved for delivery of the second identifier to the computer program, wherein the second geographic reservation data comprises a second geometric construct used to establish at least one perimeter as a boundary for the second selected geographic area of interest;

reserving, in the at least one memory, the second selected geographic area of interest for delivery of the second identifier to the computer program; and

delivering the second identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the second selected geographic area of interest.

24. (Currently Amended) The system of claim 10, wherein the code further comprises at least one instruction for performing a verification whether the computer program has authorization to initiate a location session with the content delivery platform softwareservice, wherein:

if the verification passes, the computer program is allowed to initiate a location session with the content delivery platform softwareservice; and

if the verification fails, the computer program is not allowed to initiate a location session with the content delivery platform softwareservice.

25. (Currently Amended) The system of claim 24, wherein performing the verification comprises performing, for the computer program, a check on a key being previously stored in a data store that the content delivery platform software service uses for validating location sessions initiated by one or more computer programs installed on the mobile device.

26. (Original) The system of claim 10, wherein the obtained location information is determined at least in part by using cellular tower information received via a cellular antenna of the mobile device and not by using information received via a GPS antenna of the mobile device.

27. (Original) The system of claim 16, wherein determining that the mobile device has at least entered the selected geographic area of interest comprises determining that the mobile device has at least entered the selected geographic area of interest by at least use of a specialized processor for processing whether the mobile device has at least entered the selected geographic area of interest.

28. (Currently Amended) The system of claim 11, wherein:

the at least one instruction for sending the request and the geographic reservation data to the content delivery service comprises at least one instruction configured for execution by the at least one processor of the mobile device; and

the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected

geographic area of interest, wherein the at least one instruction for determining is configured for execution by a specialized processor of the mobile device, and the specialized processor is distinct from the at least one processor used by the at least one instruction for sending the request and the geographic reservation data to the content delivery platform software.

29. (Currently Amended) A non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor to perform the steps of:

sending, to ~~a~~ content delivery platform software~~service~~:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; and

receiving, via the computer program, the identifier delivered by the content delivery platform software ~~service~~ after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest.

30. (Currently Amended) A non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor to perform the steps of:

receiving, via ~~a~~ content delivery platform software~~service~~:

a request to have an identifier delivered, being associated with a selected geographic area of interest, to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest;

reserving, in at least one memory of the mobile device, the selected geographic area of interest for delivery of the identifier to the computer program;

obtaining location information representing at least one physical geographic location of the mobile device; and

delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

REMARKS

This Preliminary Amendment is being filed prior to the mailing of a first Office action on the merits with regard to the Instant Application. The Applicants respectfully request the Examiner to consider and timely allow claims 1-30.

I. Amendments Made

With this Preliminary Amendment, the Applicants have amended claims 1-3, 5-8, 10-12, 15, 22-25, and 28-30. The Applicants submit that the amended claims a) provide proper protection of and clarity to the claims, b) do not involve the introduction of any new matter, and c) are fully supported by the Instant Application as filed.

For example, written description support for dependent claim 15 "wherein the content delivery platform software resides in the mobile device" is found at least at paragraphs 0022, 0059, 0064, and 0067. MPEP § 2163 provides that specification support for claim limitations can be "through express, implicit, or inherent disclosure." *MPEP* § 2163. The specification makes clear that the disclosed embodiments may be implemented in software, and further that a mobile device is a type of a computing device that can execute software code. The specification puts no limitation on where the content delivery platform/server or its software implementation physically resides. As such, a person of ordinary skill in the art would have recognized from the specification that the content delivery platform/server/software can reside internally to the mobile device. As further support, Applicants submit Jing, *Client-Server Computing in Mobile Environments*, ACM Computing Surveys, Vol. 31, No. 2 (June 1999); see also Information Disclosure Statement, filed herewith. Jing shows that both client and server software code/functions can operate fully on a mobile device, and thus, software code implementations of a content delivery platform/server can reside and operate on a mobile device. (See "Extended

Client-Server Model" and "Full Client Architecture" on pages 128-130 and Figure 8 (reproduced below) in Jing.

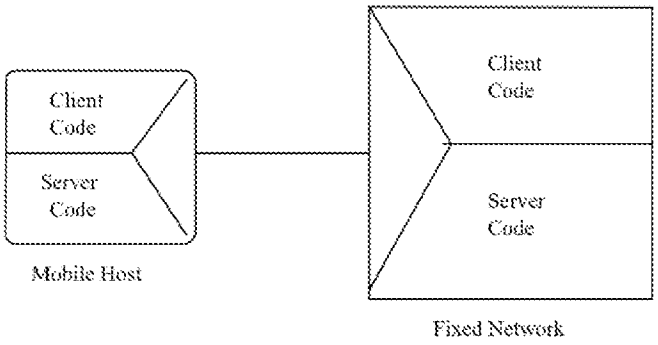


Figure 8. Extended client-server model.

Jing thus provides further support that a person of ordinary skill in the art reviewing the specification would have understood that Applicants had possession of the claimed subject matter in claim 15. Accordingly, the Applicants submit that the amended claims do not involve the introduction of any new matter and are fully supported by the Instant Application as filed.

II. Fees

As mentioned during a previously held applicant-initiated interview and a previous submission to the Office, a terminal disclaimer been filed in this case, and the terminal disclaimer fee under 37 C.F.R. § 1.20(d) has been paid. It is believed no fees are due, and this case is in condition for allowance.

CONCLUSION

The Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for reasons clearly apparent, the Applicants respectfully request full allowance of all pending claims. If there are any matters that can be discussed by telephone to further the prosecution of the Instant Application, the Applicants invite the Examiner to contact the undersigned at 903.702.5420 at the Examiner's convenience.

Respectfully Submitted,
By: /Ryan J. Hardin/
Ryan J. Hardin
Pro se and joint inventor

Ryan Hardin
P.O. Box 271861
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Electronic Acknowledgement Receipt

EFS ID:	46876951
Application Number:	17863208
International Application Number:	
Confirmation Number:	2712
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Customer Number:	118653
Filer:	Ryan J Hardin
Filer Authorized By:	
Attorney Docket Number:	0075652.00009
Receipt Date:	24-OCT-2022
Filing Date:	12-JUL-2022
Time Stamp:	13:15:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	20221024_updated_IDS_17863208_print.pdf	817110 6dcfc31ed5b5835579f2e6bf810fe026681b700a	no	4

Warnings:

Information:					
This is not an USPTO supplied IDS fillable form					
2	Non Patent Literature	Jing_319806_319814_print.pdf	15858310 775c22f78e3c71e97ce954a7758db18a6f193b6d	no	41
Warnings:					
Information:					
3		20221024_PreliminaryAmendment_SWCD.pdf	251220 d5e4ce187adfa59c5d5e9d77799a6e5b84345487	yes	14

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Preliminary Amendment	1	1
	Claims	2	11
	Applicant Arguments/Remarks Made in an Amendment	12	14

Warnings:	
Information:	
Total Files Size (in bytes):	16926640

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/863,208	Filing Date 07/12/2022	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $480 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	10/24/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 30	Minus	** 30	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	*** 4	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/RENEE D HAWKINS/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Certification Under 37 CFR 1.8

Date of Mailing or Transmission: 16 October 2022. I hereby certify that I have caused this correspondence and/or document(s) indicated herein on the date indicated above to be transmitted via the Office electronic filing system in accordance with 37 CFR 1.6(a)(4).

BY: /Ryan J. Hardin/ (Signature) Name: Ryan J. Hardin (Typed Name)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ryan Hardin et al.
Application No.: 17/863,208
Filing Date: 12 July 2022
Examiner: Ajibade Akonai, Olumide
Group Art Unit: 3648
Docket No.: 0075652.00009
Title: Exclusive Delivery of Content Within Geographic Areas

PRELIMINARY AMENDMENT UNDER 37 CFR 1.115

Date: 16 October 2022

EFS-Web
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

This Preliminary Amendment is being filed under 37 CFR 1.115 and is being filed prior to the mailing of a first Office action on the merits with regard to the above-identified patent application ("the Instant Application"). The applicants ("the Applicants") of the Instant Application respectfully request that the Instant Application be amended as outlined herein.

Amendment in the Claims begin on page 2 of this correspondence;

Remarks begin on page 12 of this correspondence; and

Conclusions begin on page 13 of this correspondence.

Home Depot - Exhibit 1026 - Page 718

AMENDMENTS IN THE CLAIMS

Please amend the claims as follows. This listing of the claims will replace all prior versions, and listings, of the claims in the Instant Application.

1. (Previously Presented) A system for creating and offloading location awareness, the system including a mobile device and comprising:

at least one memory;

at least one processor operably coupled to the at least one memory; and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

sending to a content delivery service:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; and

receiving, via the computer program, the identifier delivered by the content delivery service after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest.

2. (Previously Presented) The system of claim 1, wherein the code further comprises at least one instruction for, in response to receiving, via the computer program, the identifier

delivered by the content delivery service, displaying, via a connected display device, content associated with the selected geographic area of interest.

3. (Previously Presented) The system of claim 1, wherein:
the code further comprises at least one instruction for sending, via the computer program, the identifier to the content delivery service.

4. (Original) The system of claim 1, wherein:
the geometric construct comprises at least a latitude value, a longitude value, and a radius value; and
the geographic reservation data further comprises information indicating an area bounded by the at least one perimeter as the selected geographic area of interest.

5. (Currently Amended) The system of claim 4, wherein:
the selected geographic area of interest is a first selected geographic area of interest; and
the code further comprises at least one instruction for sending to the content delivery service[[,]] a second request to have an identifier, being associated with a second selected geographic area of interest, delivered to the computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest, wherein the second selected geographic area of interest is distinct from the first selected geographic area of interest.

6. (Previously Presented) The system of claim 1, wherein the identifier delivered by the content delivery service is a boundary identifier.

7. (Previously Presented) The system of claim 6, wherein:
receiving, via the computer program, the identifier delivered by the content delivery service comprises receiving the identifier after it has been determined, by at least use of location information representing at least one physical geographic location

of the mobile device, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time.

8. (Previously Presented) The system of claim 7, wherein the predetermined length of time is not provided to the content delivery service by the computer program but is a predetermined length of time set by the content delivery service.

9. (Previously Presented) The system of claim 1, wherein the identifier is to be delivered exclusively to the computer program and not to be broadcast to other computer programs on the mobile device.

10. (Previously Presented) A system for creating and offloading location awareness, the system including a mobile device and comprising:

at least one memory;

at least one processor operably coupled to the at least one memory; and

code configured for execution by the at least one processor, wherein the code comprises at least one instruction for:

receiving, via a content delivery service:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest;

reserving, in the at least one memory, the selected geographic area of interest for delivery of the identifier to the computer program;

obtaining location information representing at least one physical geographic location of the mobile device; and

delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

11. (Currently Amended) The system of claim 10, wherein the code further comprises at least one instruction for:

sending to the content delivery service[[,]] the request and the geographic reservation data; and

receiving, via the computer program, the identifier in response to the delivering.

12. (Previously Presented) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving the identifier via the content delivery service; and

in response to receiving the identifier via the content delivery service, storing, in the at least one memory, the identifier; and

delivering the identifier to the computer program comprises delivering the identifier from the at least one memory.

13. (Original) The system of claim 10, wherein delivering the identifier to the computer program comprises delivering the identifier after it has been determined that the mobile device has at least remained within the selected geographic area of interest for at least a predetermined length of time.

14. (Original) The system of claim 12, wherein the code further comprises at least one instruction for:

preserving delivery of the identifier from the at least one memory to the computer program until after it has been determined that the mobile device has remained within the selected geographic area of interest for at least a predetermined length of time.

15. (Currently Amended) The system of claim 12, wherein:

the code further comprises at least one instruction for sending, to the content delivery service, the identifier; and

receiving the identifier via the content delivery service comprises receiving the identifier via the content delivery service from the computer program.

16. (Original) The system of claim 10, wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

17. (Original) The system of claim 10, wherein the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest and has remained therein for at least a predetermined length of time.

18. (Original) The system of claim 10, wherein the code further comprises at least one instruction for creating a notification that the mobile device has at least entered the selected geographic area of interest.

19. (Currently Amended) The system of claim 10, wherein:

reserving the selected geographic area of interest for delivery of the identifier to the computer program comprises reserving the selected geographic area of interest only after it has been determined that the selected geographic area of interest is available to be reserved; and

the code further comprises at least one instruction for sending a notification ~~to the computer program~~ indicating that the selected geographic area of interest has been reserved.

20. (Original) The system of claim 16, wherein the determining considers whether at least a predetermined portion of the selected geographic area of interest intersects the mobile device's location circle, wherein the location circle comprises the area contained within a predetermined radius of the geographic location of the mobile device.

21. (Original) The system of claim 10, wherein the code further comprises at least one instruction for:

storing, on the mobile device, location information received from one or more mobile devices, wherein the location information received from the one or more mobile devices is received by the one or more mobile devices from one or more third party sources and is to be used, in combination with cellular tower information received via an antenna of the mobile device, for positioning the geographic location of the mobile device; and

using the stored location information received from the one or more mobile devices, in combination with cellular tower information received via an antenna of the mobile device operable to communicate with a cellular network, to position the geographic location of the mobile device.

22. (Previously Presented) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving, via the content delivery service:

a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to a second computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest; and

second geographic reservation data to have the second selected geographic area of interest reserved for delivery of the second identifier to the second computer program, wherein the second geographic reservation data comprises a second geometric construct used to establish at least one perimeter as a boundary for the second selected geographic area of interest;

reserving, in the at least one memory, the second selected geographic area of interest for delivery of the second identifier to the second computer program; and

delivering the second identifier to the second computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the second selected geographic area of interest.

23. (Previously Presented) The system of claim 10, wherein:

the code further comprises at least one instruction for:

receiving, via the content delivery service:

a second request to have a second identifier, being associated with a second selected geographic area of interest, delivered to the computer program after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a second selected geographic area of interest; and

second geographic reservation data to have the second selected geographic area of interest reserved for delivery of the second identifier to the computer program, wherein the second geographic reservation data comprises a second geometric construct used to establish at least one perimeter as a boundary for the second selected geographic area of interest;

reserving, in the at least one memory, the second selected geographic area of interest for delivery of the second identifier to the computer program; and

delivering the second identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the second selected geographic area of interest.

24. (Previously Presented) The system of claim 10, wherein the code further comprises at least one instruction for performing a verification whether the computer program has authorization to initiate a location session with the content delivery service, wherein:

if the verification passes, the computer program is allowed to initiate a location session with the content delivery service; and

if the verification fails, the computer program is not allowed to initiate a location session with the content delivery service.

25. (Currently Amended) The system of claim 24, wherein performing the verification comprises performing, for the computer program, a check on a key being previously stored in a data store that the content delivery service[[s]] uses for validating location sessions initiated by one or more computer programs installed on the mobile device.

26. (Original) The system of claim 10, wherein the obtained location information is determined at least in part by using cellular tower information received via a cellular antenna of the mobile device and not by using information received via a GPS antenna of the mobile device.

27. (Original) The system of claim 16, wherein determining that the mobile device has at least entered the selected geographic area of interest comprises determining that the mobile device has at least entered the selected geographic area of interest by at least use of a specialized processor for processing whether the mobile device has at least entered the selected geographic area of interest.

28. (Previously Presented) The system of claim 11, wherein:

the at least one instruction for sending the request and the geographic reservation data to the content delivery service comprises at least one instruction configured for execution by the at least one processor of the mobile device; and

the code further comprises at least one instruction for determining, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest, wherein the at least one instruction for determining is configured for execution by a specialized processor of the mobile device distinct from the at least one processor.

29. (Previously Presented) A non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor to perform the steps of:

sending to a content delivery service:

a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; and

receiving, via the computer program, the identifier delivered by the content delivery service after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest.

30. (Currently Amended) A non-transitory computer readable medium for creating and offloading location awareness, said non-transitory computer readable medium causing at least one processor to perform the steps of:

receiving, via a content delivery service:

a request to have an identifier delivered, being associated with a selected geographic area of interest, to a computer program <u>on a mobile device</u> after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered a selected geographic area of interest; and

geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest;

reserving, in at least one memory of the mobile device, the selected geographic area of interest for delivery of the identifier to the computer program;

obtaining location information representing at least one physical geographic location of the mobile device; and

delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest.

REMARKS

This Preliminary Amendment is being filed prior to the mailing of a first Office action on the merits with regard to the Instant Application. The Applicants respectfully request the Examiner to consider and timely allow claims 1-30.

I. Corrections Made

With this Preliminary Amendment, the Applicants have amended claims 5, 11, 15, 19, 25, and 30. The Applicants submit that the amended claims a) provide proper protection of and clarity to the claims, b) do not involve the introduction of any new matter, and c) are fully supported by the Instant Application as filed. Furthermore, on October 5, 2022, the Applicants filed a letter to the Office pursuant to the Instant Application—U.S. Patent Application 17/863,208. See *Electronic Acknowledgement Receipt, EFS ID 46755583*. The "Filing Date" listed on the first page of said letter in the patent application identification section had a typographical error; the correct filing date should be the filing date as listed on the first page of this Preliminary Amendment—12 July 2022.

II. Fees

As mentioned in the letter referenced above and during the previously held applicant-initiated interview, a terminal disclaimer been filed in this case, and the terminal disclaimer fee under 37 C.F.R. § 1.20(d) has been paid. It is believed no fees are due, and this case is in condition for allowance.

CONCLUSION

The Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for reasons clearly apparent, the Applicants respectfully request full allowance of all pending claims. If there are any matters that can be discussed by telephone to further the prosecution of the Instant Application, the Applicants invite the Examiner to contact the undersigned at 903.702.5420 at the Examiner's convenience.

Respectfully Submitted,
By: /Ryan J. Hardin/
Ryan J. Hardin
Pro se and joint inventor

Ryan Hardin
P.O. Box 271861
Houston, Texas 77277

Telephone: 903.702.5420
Email: patent.matters@pronetcorp.com

Electronic Acknowledgement Receipt

EFS ID:	46826250
Application Number:	17863208
International Application Number:	
Confirmation Number:	2712
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Customer Number:	118653
Filer:	Ryan J Hardin
Filer Authorized By:	
Attorney Docket Number:	0075652.00009
Receipt Date:	16-OCT-2022
Filing Date:	12-JUL-2022
Time Stamp:	00:19:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		20221016_PreliminaryAmendment.pdf	205866 b46e80f83973a11c1cf2566cd5f34166ecd37420	yes	13

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Preliminary Amendment	1	1
	Claims	2	11
	Applicant Arguments/Remarks Made in an Amendment	12	13
Warnings:			
Information:			
	Total Files Size (in bytes):	205866	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/863,208	Filing Date 07/12/2022	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $480 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	10/16/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 30	Minus	** 30	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	*** 4	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/DORIAN EVANS/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/863,208	Filing Date 07/12/2022	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $480 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	10/16/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 30	Minus	** 30	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	*** 4	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/IRMA J SATCHER/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Certification Under 37 C.F.R. 1.8

Date of Mailing or Transmission: 05 October 2022. I hereby certify that I have caused this correspondence and/or document(s) indicated herein on the date indicated above to be transmitted via the Office electronic filing system in accordance with 37 C.F.R Sec. 1.6(a)(4).

BY: /Ryan J. Hardin/ (Signature) Name: Ryan J. Hardin (Typed Name)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Ryan Hardin
Application No.: 17/863,208
Filing Date: 02 September 2017
Title: EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS

Examiner: Ajibade Akonai, Olumide
Group Art Unit: 3648
Docket No.: 0075652.00009

APPLICANT-INITIATED INTERVIEW SUMMARY UNDER 37 CFR § 1.333 AND 37 CFR § 1.2; TERMINAL DISCLAIMER; NOTICE FOR EXAMINER & INFORMATION DISCLOSURE

Date: 05 October 2022

EFS-Web
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

This letter is filed pursuant to an applicant-initiated interview, a previously-filed preliminary amendment, terminal disclaiming, and a notice for the Examiner and information disclosure statements. The applicants ("the Applicants") of the above-referenced application ("the Instant Application") respectfully request that this letter be reviewed and entered in this case. This letter is being filed prior to the mailing of a first office action on the merits with regard to the Instant Application.

Remarks begin on page 2 of this correspondence; and

Conclusion begin on page 10 of this correspondence.

REMARKS

A recent applicant-initiated interview was held between Ryan Hardin, *pro se* inventor, ("the Applicant") and the Examiner. At the time of the interview, Claims 1-30 were pending in the Instant Application. The Applicants submit that the presentations and remarks made herein and in the interview are fully supported by the Instant Application, and the Applicants respectfully request favorable action in this case.

I. Prosecution History

The prosecution history indicates a preliminary amendment ("Pre-exam Amendment") was filed by the Applicants and received by United States Patent and Trademark Office via EFS web ("the Office") on September 29, 2022, at 8:56 a.m. EDT. See *Electronic Acknowledgement Receipt, EFS ID 46717889*. The prosecution history also indicates information disclosure statements and associated documents/publications ("IDSes") filed by the Applicants and received by the Office on July 20, 2022, at 23:49 p.m. EDT; July 23, 2022, at 10:02 a.m. EDT; July 23, 2022, at 10:16 a.m. EDT; and September 29, 2022, at 1:18 a.m. EDT. See *Electronic Acknowledgement Receipt, EFS ID 46238050*; *Electronic Acknowledgement Receipt, EFS ID 46256673*; *Electronic Acknowledgement Receipt, EFS ID 46256676*; and *Electronic Acknowledgement Receipt, EFS ID 46717200*.

II. Examiner Interview

On September 29, 2022, at 12:01 p.m. EDT, the Applicant conducted an applicant-initiated video conference interview with the Examiner. The Examiner and the Applicant discussed the Pre-exam Amendment. The Examiner and the Applicant discussed the claims of the Pre-exam

Amendment pursuant to written description support in the specification. The Applicant pointed out to the Examiner at least one area of the specification showing written description support. The Applicant brought to the Examiner's attention that the IDSes had been filed. The Applicant raised to the Examiner the idea of the Applicants providing a terminal disclaimer strictly for the purpose of expediting prosecution and to avoid any possible hindrances that might delay allowance of the claims. The Examiner agreed to fully review and consider the Pre-exam Amendment, the IDSes, the specification, and any terminal disclaimer that may be filed by the Applicants.

III. Terminal Disclaimer

So as to preclude any potential hindrances for allowance due to the Office potentially alleging double-patenting on the claims, and solely for the purposes of expediting prosecution without conceding to any position the Examiner may take regarding the Office's position on double patenting, the Applicants submit that a terminal disclaimer has been filed in this case by the Applicants and was received by the Office on October 5, 2022, at 1:09 a.m. EDT. See *Electronic Acknowledgement Receipt, EFS ID 46755433.*

Nevertheless, in the event the Office does take the position that the claims are subject to non-statutory double-patenting, the Applicants point out that the term "non-statutory" is an admission that this type of rejection is not authorized by a congressional statute, yet Congress is the only branch of the government authorized to create substantive patent law. Accordingly, as an administrative agency, the Office is limited to making rules pursuant to a constitutionally valid delegation of power from the Congress. While the Congress has delegated authority to the Office to make certain rules (for example, the PTAB regulations, see *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131 (2016) (note that by the mere providing of this example of PTAB

regulations, the Applicants do not concede to the constitutionality of said PTAB regulations)), no statute exists that delegates the authority to make or implement a rule on non-statutory double patenting. The Federal Circuit ("CAFC") has confirmed on several occasions that Congress did not vest the Office with any general substantive rulemaking power. The Office is instead vested with the power to make procedural rules and to apply statutes passed by the Congress. Thus, promulgation of rules related to non-statutory double patenting, and any insistence on the submission of a terminal disclaimer that can affect patent term and ownership, runs contrary to prior court holdings that have found agency action outside the scope of a clear delegation of authority provided by the Congress to be unconstitutional.

Nevertheless, even if the Congress had delegated authority to the Office to promulgate a rule on non-statutory double patenting (which it has not because there is no such statute), the current MPEP guidance and rules are procedurally defective under the Administrative Procedure Act ("APA"; 5 U.S.C. 500-596). The APA has strict procedural requirements that agencies must follow to make new rules. The requirements of APA Sections 553, 556, or 557 apply to all substantive rulemaking by the Office. At a minimum, these rules require that a notice of proposed rulemaking is provided for substantive rules, and a comment period allowed and then the final rule must be published in the Federal Register. The Office has not published proposed or final rules on the metes and bounds of non-statutory double patenting in the Federal Register. Moreover, it is well established that the MPEP does not have the force of law; the MPEP is for internal guidance only; and the MPEP is not a substitute for the notice and comment provisions of the APA for substantive rules.

If one traces double patenting to the first MPEP (§ 9-4-1 MPEP 1948), the rule still fails to meet the procedural requirements of the original APA, which even in 1946 required publication in

the Federal Register (60 Stat. 237, 238, 1946). In fact, there has never been a rule implementing the law on non-statutory double patenting in the Federal Register that complies with the APA. Notwithstanding, the Office cannot do so because, by definition, there is no clear delegation from the Congress on this matter because there is no statute.

Finally, the MPEP states "There are generally two types of double patenting rejections. One is the 'same invention' type double patenting rejection … The second is the 'nonstatutory-type' double patenting rejection based on a judicially created doctrine grounded in public policy and which is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinct from claims in a first patent." (§ 804 MPEP R-08.2017) However, such "judicially created doctrine" of non-statutory double patenting is *ultra vires* because the U.S. Constitution does not grant power to the courts to create patent law, regardless of the underlying public policy. Any assertion of statutory *stare decisis* cannot be used to bootstrap the unauthorized judicial creation of substantive patent law to judicial self-authorization. Moreover, there has been no clear delegation of authority under *Chevron U.S.A., Inc. v. Natural Resource Defense Council*, 467 U.S. 837 (1984) to the Office to generate regulatory law on non-statutory double patenting and associated terminal disclaimers.

Nevertheless, in order to expedite prosecution, and without conceding to any position of the Examiner regarding the Office's position of non-statutory double patenting, the Applicants submit that a terminal disclaimer has been filed in this case.

IV. Notice for Examiner & Information Disclosure

In compliance with the duty of candor and good faith to disclose all information known to be material to patentability under 37 C.F.R § 1.56, the Examiner is requested to consider the

references submitted in the IDSes in accordance to 37 C.F.R. §§ 1.97-1.98 and make them of record in the Instant Application. It should be noted that by submitting the references, the Applicants are acting in good faith and not attempting to "flood" the Office with irrelevant references; rather, the Applicants have provided the Office with references considered relevant by interested parties[1] in the Applicants' earnest attempt to place this case in condition for allowance.

In accordance with 37 C.F.R § 1.97(g), the IDSes and this letter are not intended and should not be considered as a representation that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(b) exists. Similarly, in accordance with 37 C.F.R. § 1.97(h), the IDSes and this letter are not intended and should not be considered to be an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The Examiner should be advised that the Instant Application claims priority from co-pending United States Non-provisional Patent Application having Serial No. 17/182,809, filed 23-February-2021, entitled "EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS", which claims priority from co-pending United States Non-provisional Patent

[1] The Applicants filed civil actions Case No. 2:21-cv-00290-JRG, E.D. Tex. and 2:21-cv-00289-JRG, E.D. Tex. on July 30, 2021, involving U.S. Patent Nos. 9,779,418, 10,049,387, and 10,984,447 respectively against Samsung Electronics Co., LTD., and Samsung Electronics America, Inc. ("Samsung") and LG Electronics, Inc. and LG Electronics Alabama, Inc., ("LG") (collectively, "the Defendants"). The Defendants introduced invalidity contentions on March 17, 2022, pursuant to Patent Local Rules 3-3 and 3-4, including citations to various references and exhibits comprising one or more patents, patent application publications, foreign patent documents, and non-patent literature documents. Applicants have made an earnest attempt to provide these contentions, references, and exhibits to the Office in this case. Of note for the Office is that, despite providing these invalidity contentions, LG resolved the patent infringement case brought by the Applicants, and the Applicants dismissed 2:21-cv-00289-JRG with prejudice on July 14, 2022. Furthermore, Samsung and Google, LLC have filed *inter partes* reviews IPR2022-1330, IPR2022-1331, IPR2022-1332 against US 9,779,418; IPR2022-1327, IPR2022-1328, and IPR2022-1329 against US 10,049,387; and IPR2022-1333, IPR2022-1334, and IPR2022-1335 against US 10,984,447, which include contentions, references, and exhibits comprising one or more patents, patent application publications, foreign patent documents, and non-patent literature documents. Applicants have made an earnest attempt to provide these contentions, references, and exhibits to the Office in this case.

Home Depot - Exhibit 1026 - Page 740

Application having Serial No. 16/019,285, filed 26-June-2018, entitled "EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS", now U.S. Patent No. 10,984,447 issued on 20-April-2021, which claims priority from co-pending United States Non-provisional Patent Application having Serial No. 15/694,786, filed 02-September-2017, entitled "EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS", now U.S. Patent No. 10,049,387 issued on 14-August-2018, which claims priority from co-pending United States Non-provisional Patent Application having Serial No. 15/009,961, filed 29-January-2016, entitled "EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS", now U.S. Patent No. 9,779,418 issued on 03-October-2017, which claims priority from co-pending United States Non-provisional Patent Application having Serial No. 14/608,285, filed 29-January-2015, entitled "EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS", now U.S. Patent No. 9,286,625 issued on 15-March-2016, which claims priority from co-pending United States Non-provisional Patent Application having Serial No. 13/856,392, filed 03-April-2013, entitled "EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS", now U.S. Patent No. 8,977,247 issued on 10-March-2015, which claims priority from co-pending United States Non-provisional Patent Application having Serial No. 12/434,094, filed 01-May-2009, entitled "EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS", now U.S. Patent No. 8,433,296 issued on 30-April-2013. United States Non-provisional Patent Application having Serial No. 14/292,204, a divisional of United States Non-provisional Patent Application having Serial No. 13/856,392, filed 30-May-2014, entitled "EXCLUSIVE DELIVERY OF CONTENT WITHIN GEOGRAPHIC AREAS", was abandoned on 23-February-2017 for Applicant's failure to timely file a proper reply by due date. The Applicants call to the Examiner's attention that the non-final rejection of 14/292,204 was extensively analyzed by petitioners in petitions for *inter*

partes review, filed on August 2, 2022, and these have been provided to the Examiner via information disclosure statement filed on September 29, 2022. See *Electronic Acknowledgement Receipt, EFS ID 46717200.*

The claims presented in the Instant Application may have similar structure and/or terminology as claims in the above-listed application(s). The Examiner is advised that any prior art cited in, and the prosecution histories of, the above-listed application(s) and the information contained in the IDSes (collectively, "the art made of record") may need to be visited in the examination of the pending claims of the Instant Application.

The Applicants submit that the art made of record, including any art previously cited, (collectively, "the prior art") fails to disclose, suggest, anticipate, or teach, whether individually or in reasonable combination thereof, these features of the independent Claims 1 and 29—sending to a content delivery service: a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; and receiving, via the computer program, the identifier delivered by the content delivery service after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest—or the independent Claims 10 and 30—receiving, via a content delivery service: a request to have an identifier, being

associated with a selected geographic area of interest, delivered to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest; and geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest; reserving, in at least one memory, the selected geographic area of interest for delivery of the identifier to the computer program; obtaining location information representing at least one physical geographic location of the mobile device; and delivering the identifier to the computer program after it has been determined, using the obtained location information, that the mobile device has at least entered the selected geographic area of interest—as recited by said independent claims.

Furthermore, the Applicants submit that it would not have been obvious to a person with ordinary skill in the art at the time of the invention to modify and/or combine the prior art to arrive at the recited features of the independent Claims 1, 10, 29, and 30.

V. Fees

A terminal disclaimer has been filed in this case, and the terminal disclaimer fee under 37 C.F.R. § 1.20(d) has been paid. It is believed no fees are due, and this case is in condition for allowance.

CONCLUSION

The Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for reasons clearly apparent, the Applicants respectfully request full allowance of all pending claims. If there are any matters that can be discussed by telephone to further the prosecution of the Instant Application, the Applicants invite the Examiner to contact the undersigned at 903.702.5420 at the Examiner's convenience.

Respectfully Submitted,
By: /Ryan J. Hardin/
Ryan J. Hardin
Pro se and joint inventor

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Telephone: 903.702.5420
Email: patent.matters@pronetcorp.com

Electronic Acknowledgement Receipt

EFS ID:	46755583
Application Number:	17863208
International Application Number:	
Confirmation Number:	2712
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Customer Number:	118653
Filer:	Ryan J Hardin
Filer Authorized By:	
Attorney Docket Number:	0075652.00009
Receipt Date:	05-OCT-2022
Filing Date:	12-JUL-2022
Time Stamp:	04:49:02
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	20221005_InterviewSummary_Notice_TerminalDisclaimer.pdf	214645 c371292d5d2cdaf84bb6bc07e3d3fb9b5fd4a59b	no	10

Warnings:

Information:	
Total Files Size (in bytes):	214645

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Doc Code: DIST.E.FILE **Document Description: Electronic Terminal Disclaimer - Filed**	PTO/SB/25 PTO/SB/26 U.S. Patent and Trademark Office Department of Commerce

Electronic Petition Request	**TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION AND TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT**
Application Number	17863208
Filing Date	12-Jul-2022
First Named Inventor	Ryan Hardin
Attorney Docket Number	0075652.00009
Title of Invention	Exclusive Delivery of Content Within Geographic Areas

☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action

☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent Interest
Ryan Hardin and Andrew Hill	100 %

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)

17182809 filed on 02/23/2021

as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

The owner(s) with percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)

as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:
- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

(●) Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.

( ) I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.

Applicants claims the following fee status:

( ) Small Entity

( ) Micro Entity

(●) Regular Undiscounted

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

( ) An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Registration Number _____

( ) A sole inventor

(●) A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application

( ) A joint inventor; all of whom are signing this request

Signature	/Ryan J. Hardin/
Name	Ryan J. Hardin

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal

Application Number:	17863208
Filing Date:	12-Jul-2022
Title of Invention:	Exclusive Delivery of Content Within Geographic Areas
First Named Inventor/Applicant Name:	Ryan Hardin
Filer:	Ryan J Hardin
Attorney Docket Number:	0075652.00009

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	1814	1	170	170
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**170**