

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROCKET MEDIA, LLC d/b/a LAUNCH LABS,
Petitioner,

v.

FULLTHROTTLE TECHNOLOGIES, LLC,
Patent Owner.

IPR2025-00148
Patent 11,556,947 B2

Before JUSTIN T. ARBES, KEVIN W. CHERRY, and
ARTHUR M. PESLAK, *Administrative Patent Judges*.

CHERRY, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Rocket Media, LLC d/b/a Launch Labs (“Petitioner”) filed a Petition (Paper 2, “Pet.”) to institute an *inter partes* review of claims 1–20 (“the challenged claims”) of U.S. Patent No. 11,556,947 B2 (Ex. 1001, “the ’947 patent”). Fullthrottle Technologies, LLC (“Patent Owner”) filed a Preliminary Response (Paper 6). We instituted *inter partes* review under 35 U.S.C. § 314(a). Paper 7 (“Inst. Dec.”).

During the trial, Patent Owner filed a Response (Paper 12, “PO Resp.”), Petitioner filed a Reply (Paper 16, “Reply”), and Patent Owner filed a Sur-Reply (Paper 18, “Sur-Reply”).

Petitioner requested oral argument. Paper 19. A hearing was conducted on March 11, 2026. Paper 21 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). Having reviewed the complete trial record, we determine that Petitioner has shown, by a preponderance of the evidence, that the challenged claims are unpatentable.

II. BACKGROUND

A. *Real Parties in Interest*

Petitioner identifies itself, Rocket Media, LLC d/b/a Launch Labs, as the real party-in-interest. Pet. 62. Patent Owner identifies itself, Fullthrottle Technologies, LLC, as well as Stream Companies Holdings, LLC, Cavalier Enterprise Holdings Inc., Hawk Enterprises Holdings, Inc., and SCP IV AIV V, LP, as real parties-in-interest. Paper 4, 2.¹

¹ We note that Paper 4 lacks page numbers. We cite to pages of Paper 4 as if numbered consecutively, beginning with the cover page as page 1.

B. *Related Matters*

The parties identify the following proceeding as a related matter involving the '947 patent: *Fullthrottle Technologies, LLC v. Rocket Media, LLC (d/b/a Launch Labs)*, No. 1:24-cv-00314 (M.D.N.C.) (“the district court case”). Pet. 62; Paper 4, 2.

C. *The '947 Patent (Ex. 1001)*

The '947 patent is titled “Location Determination Using Anonymous Browser Data” and relates to product marketing using websites. Ex. 1001, code (54), 1:14. The '947 patent discloses systems and methods for determining a user’s location based on anonymous data associated with the user’s browser session on a computing device. *Id.* at 1:38–42.

Figure 16 of the '947 patent is shown below.

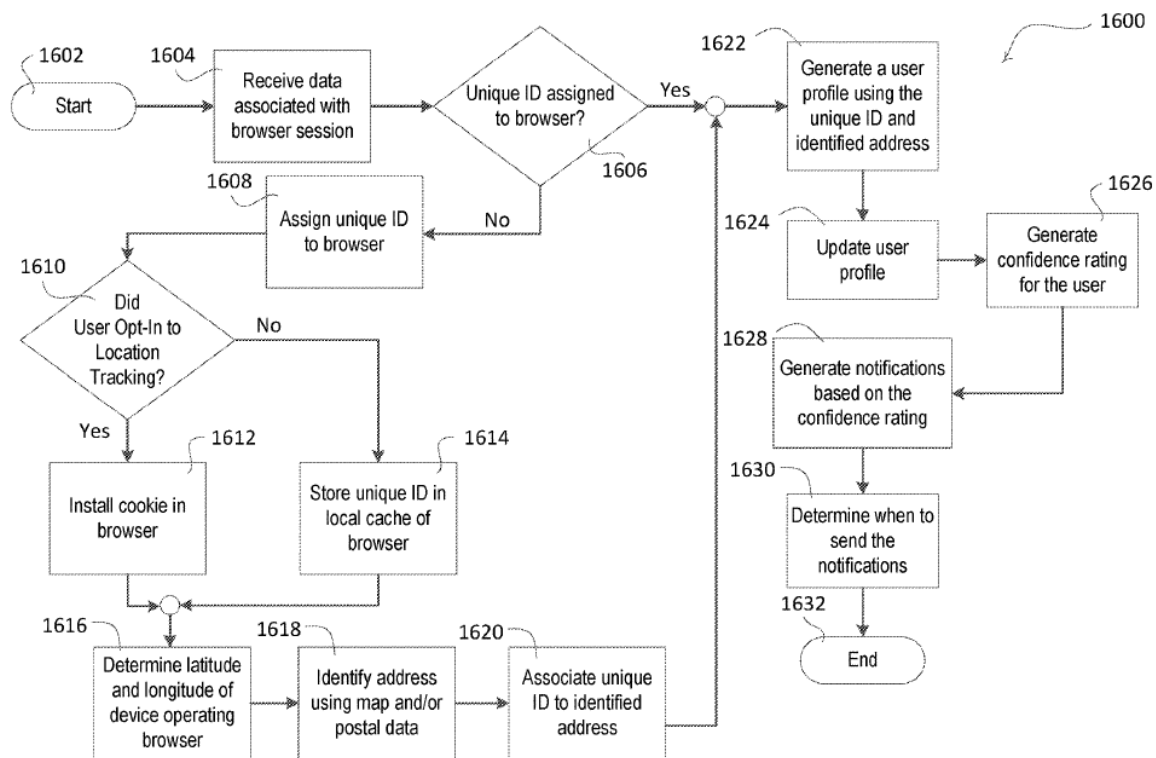


FIG. 16

Figure 16, above, is a flow chart illustrating a computer-implemented method for associating a unique identifier with a user's physical address based on anonymous data. *Id.* at 3:43–46, 42:29–34. The method begins, at step 1602, with a user accessing a uniform resource locator (URL) via a browser application on a user computing device. *Id.* at 43:9–11. At step 1604, a computing device (i.e., server) associated with the URL receives anonymous data from the user's browser session, such as date, time, URL, browser type, language, internet protocol (IP) address, or location data. *Id.* at 43:15–21. After receiving the anonymous data, the server accesses a database and determines if there is a unique identifier associated with the user, at step 1606. *Id.* at 43:49–59. If it is determined that no unique identifier is associated with the user, the server generates a unique identifier and assigns it to the user, at step 1608. *Id.* at 44:5–8.

At step 1610, the server determines whether the user has opted-in to or opted-out of location tracking. *Id.* at 44:17–18. If the user opted-in to location tracking, a tracker cookie is stored in the browser application on the user device, which enables the server to retrieve geo-location data from the user device. *Id.* at 44:25–29. If the user opted-out of location tracking, the server stores the unique identifier assigned to the user in the user's local browser cache, which can be used to recognize return visits to the URL by the user device. *Id.* at 44:59–67. At step 1616, the server determines latitude and longitude coordinates of the user device using data received from a user's browser session. *Id.* at 45:21–25. The server uses a map application programming interface (API) to translate the coordinates of the user device into a physical address, such as the postal address where the user device accessed the URL. *Id.* at 45:31–41. At step 1620, the server

associates the physical address with the unique identifier assigned to the user. *Id.* at 45:62–65. By mapping the unique identifier to the determined location data, user visits to the URL can be tracked without the use of tracker cookies. *Id.* at 45:66–46:4.

Based on the association between the unique identifier and the location data, the server generates a profile for the user, at step 1622. *Id.* at 46:9–11. The profile tracks user activity with information such as URLs accessed, the frequency of URL visits, and demographics. *Id.* at 46:11–18. The user’s profile information is updated based on subsequent browsing sessions, and may be used to generate targeted advertisements. *Id.* at 46:20–23.

D. *Challenged Claims*

Petitioner challenges claims 1–20. Pet. 1. Of the challenged claims, claims 1 and 11 are independent. Claim 1, reproduced below with Petitioner’s identifiers for the claim limitations in bold (*see* Pet. 19–42), is illustrative of the claimed subject matter.

1. [pre] A method comprising:

- [a]** receiving first anonymous data associated with a first browser session initialized by a user via a browser on a user computing device, wherein the first anonymous data comprises one or more of a time, a date, one or more uniform resource locators (URLs), a referring URL, a browser type, a language, an internet protocol (IP) address, or location data;
- [b]** determining that the user accessed a URL during the first browser session;
- [c]** determining that the user has not been assigned a unique identifier based on a lack of stored location data for the user computing device;

- [d] assigning the unique identifier to the user;
- [e] determining whether the user opted-in to or out of location tracking, based on whether a location tracker is installed on the user computing device;
- [f] sending, upon determining that the user opted-out of location tracking, the unique identifier to the user computing device for storage in a local browser cache;
- [g] determining a latitude coordinate and a longitude coordinate of the user computing device, during the first browser session, wherein the latitude coordinate and the longitude coordinate are determined based on the first anonymous data upon determining that the user opted-out of location tracking, and wherein the latitude coordinate and the longitude coordinate are determined based on geo-location data retrieved from the user computing device upon determining that the user opted-in to location tracking;
- [h] identifying a physical address for the user based on the determined latitude coordinate and the determined longitude coordinate using a map application programming interface (API);
- [i] associating the unique identifier to the physical address;
- [j] generating a user profile for the user using the unique identifier and physical address, the user profile comprising profile information that comprises one or more URLs the user has accessed, a frequency with which the user accessed the URL(s), demographics associated with the user, the physical address(es) associated with the user, or devices associated with the user;
- [k] updating the profile information based on second anonymous data associated with a second browser session initialized on the user computing device or another user computing device associated with the physical address;

- [l] identifying a second visit to the URL during the second browser session using the unique identifier stored in the local browser cache;
- [m] determining, using the updated profile information, a confidence rating for the user, the confidence rating indicating a quantifiable measure of the user's interest in a product;
- [n] generating one or more notifications based on one or more of the updated profile information or the confidence rating; and
- [o] determining when to send the one or more notifications to the user.

Ex. 1001, 47:44–48:36.

E. *Asserted Grounds*

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. §²	Reference(s)/Basis
1–20	103	Doughty ³ , Van Boucq ⁴
1–20	103	Doughty, Van Boucq, Maginnis ⁵

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102, 103. Because the ’947 patent has an effective filing date after the effective date of the applicable AIA amendment, we refer to the AIA version of § 103.

³ Doughty et al., U.S. Patent No. 8,898,074 B2 (issued Nov. 25, 2014, filed May 5, 2014) (Ex. 1008, “Doughty”).

⁴ Van Boucq, European Patent Application No. 2 938 045 A1 (published Oct. 28, 2015) (Ex. 1009, “Van Boucq”).

⁵ Maginnis, U.S. Patent No. 10,311,465 B2 (issued June 4, 2019, filed June 17, 2015) (Ex. 1010, “Maginnis”).

Petitioner submits its Petition with the Declaration of Mr. David Hilliard Williams (Ex. 1007), and its Reply with the Rebuttal Declaration of Mr. David Hilliard Williams (Ex. 1066).

Patent Owner supports its contentions with the Declaration of Dr. Oded Gottesman (Ex. 2012).

III. ANALYSIS

A. *Legal Standards*

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

In conducting an obviousness analysis, one must determine whether the claimed elements are present in the prior art. *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1194–98 (Fed. Cir. 2014) (citing *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164 (Fed. Cir. 2006)). However, a patent claim “is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. An obviousness determination requires finding “both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art

references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.”

Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd., 821 F.3d 1359, 1367–68 (Fed. Cir. 2016); *see KSR*, 550 U.S. at 418. Further, an assertion of obviousness “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418; *In re NuVasive, Inc.*, 842 F.3d 1376, 1383 (Fed. Cir. 2016) (a finding of a motivation to combine “must be supported by a ‘reasoned explanation’”).

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3)); *see also Intelligent Bio-Sys.*, 821 F.3d at 1369. Therefore, to prevail in an *inter partes* review, Petitioner must explain how the proposed combinations of prior art would have rendered the challenged claims unpatentable.

B. *Level of Ordinary Skill in the Art*

We consider the asserted ground of unpatentability in view of the understanding of a person of ordinary skill in the art (“POSITA”). In assessing the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (quoting *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)). “[O]ne or more factors may predominate.” *Id.*

Petitioner contends that a person of ordinary skill in the art in June 2021 would have had “(1) at least a bachelor’s degree in computer science, computer engineering, electrical engineering, or an equivalent field plus at least one year of experience working on computer networking, or (2) at least 3 years of experience working on computer networking, even without a formal degree.” Pet. 14 (citing Ex. 1007 ¶¶ 44–47). Patent Owner does not contest Petitioner’s proffered definition. PO Resp. 23.

Petitioner’s proposed definition appears to be consistent with the disclosure of the ’947 patent, and we adopt it for purposes of this Decision. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining that the prior art itself may “reflect[] an appropriate level” of ordinary skill in the art) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)).

C. *Claim Construction*

In an *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b); *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). This standard includes “construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b). “Any prior claim construction determination concerning a term of the claim in a civil action, or a proceeding before the International Trade Commission, that is timely made of record in the *inter partes* review proceeding will be considered.” *Id.*

“In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317.

“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). We determine that no terms require express construction to resolve the parties’ disputes in this case, but address certain claim construction arguments made by the parties in the analysis below. *See id.*; Inst. Dec. 11 (determining that “no express claim construction is necessary for any claim terms”); PO Resp. 23 (agreeing that “no express constructions are necessary to resolve this IPR”).

D. *Prior Art*

Before turning to Petitioner’s asserted grounds of unpatentability, we provide brief summaries of the asserted references.

1. Doughty

Doughty is titled “Creation of a Universal Profile of a User by Identifying Similar User-Managed Assets on a Plurality of Devices of the User.” Ex. 1008, code (54). Doughty “relates to the field of mobile communications and more particularly to improved methods and systems directed to targeting advertising to mobile and non-mobile communication

facilities accessed by the same user.” *Id.* at 5:27–30. Doughty discloses, “[i]n a first embodiment, a system for identifying a same user of multiple communication devices.” *Id.* at 6:1–2. Figure 1 of Doughty, reproduced below, shows the first embodiment.

FIG. 1

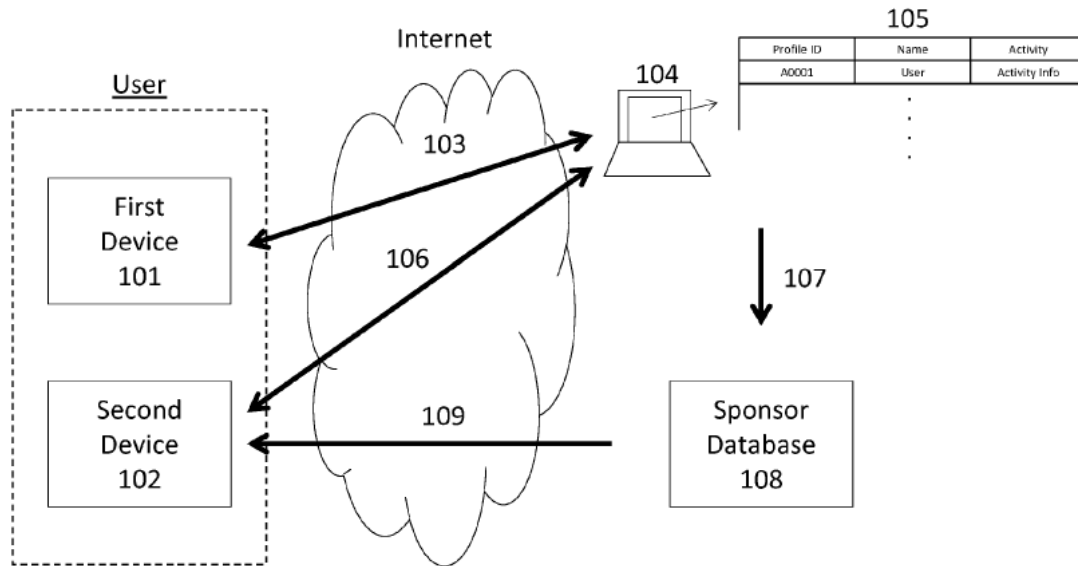


Figure 1 depicts a wireless system for providing advertisements to multiple communication devices for a user, including first device 101, second device 102, server 104, and sponsor database 108. *Id.* at 10:15–18. Server 104 communicates with first device 101 and receives information about the user’s activity on that device, such as a behavioral pattern, viewing habits, usage data, and geographic location. *Id.* at 10:34–39. Once the user’s activity information is received, server 104 assigns a unique identifier to first device 101 and stores the unique identifier, user information, and activity information in table 105. *Id.* at 10:45–50. By linking identifiers, such as serial numbers or other third-party identifiers, server 104 identifies that second device 102 also belongs to the user and records this information in table 105. *Id.* at 11:16–26. Server 104 informs sponsor database 108, and

requests that sponsor database 108 transmit an advertisement to second device 102, which may be based on the user's activity data for first device 101. *Id.* at 10:52–62, 11:26–29.

Doughty also discloses associating the user's unique identifier with a profile. *Id.* at 12:13–14. A single user may have multiple profiles based on web browser activities on different devices. *Id.* at 12:30–32. For example, a user may have a first profile associated with first device 101 and a second profile associated with second device 102. *Id.* at 12:38–40. Server 104 stores the first and second user profiles in table 105, and can link the first and second user profiles together into a single universal profile for the user. *Id.* at 12:53–58. According to Doughty, “collapsing all profiles and activities into a single profile simplifies the unique identifying process.” *Id.* at 12:32–34. Server 104 sends the universal profile information to sponsor database 108, which pushes advertisements to the user's devices based on a relevancy score between an advertisement and a universal profile. *Id.* at 12:58–65.

2. *Van Boucq*

Van Boucq is titled “Geolocation Method.” Ex. 1009, code (54).⁶ *Van Boucq* relates to the delivery of advertisements based on geolocation data. *Id.* ¶ 1. *Van Boucq* explains that a known method for geolocating an internet user relies on the user's internet protocol (IP) address. *Id.* ¶ 5. However, “[a] major drawback to geolocating Internet users solely by the

⁶ Citations to *Van Boucq* herein refer to the English language translation appearing on pages 33–61 of Exhibit 1009. Petitioner provided an affidavit attesting to the accuracy of the translation. *See* Ex. 1009, 65; 37 C.F.R. § 42.63(b).

geolocation of their IP addresses is that ads targeted to the point where the Internet users' IP addresses are geolocated are delivered to Internet users who may in fact be a long way from that point.” *Id.* ¶ 10. Van Boucq discloses “a geolocation method enabling a precise geolocation to be assigned to an Internet user whose IP address is known but who is not geolocated by any geolocation method other than geolocation via the user’s IP address.” *Id.* ¶ 13.

Figure 2 of Van Boucq is reproduced below.

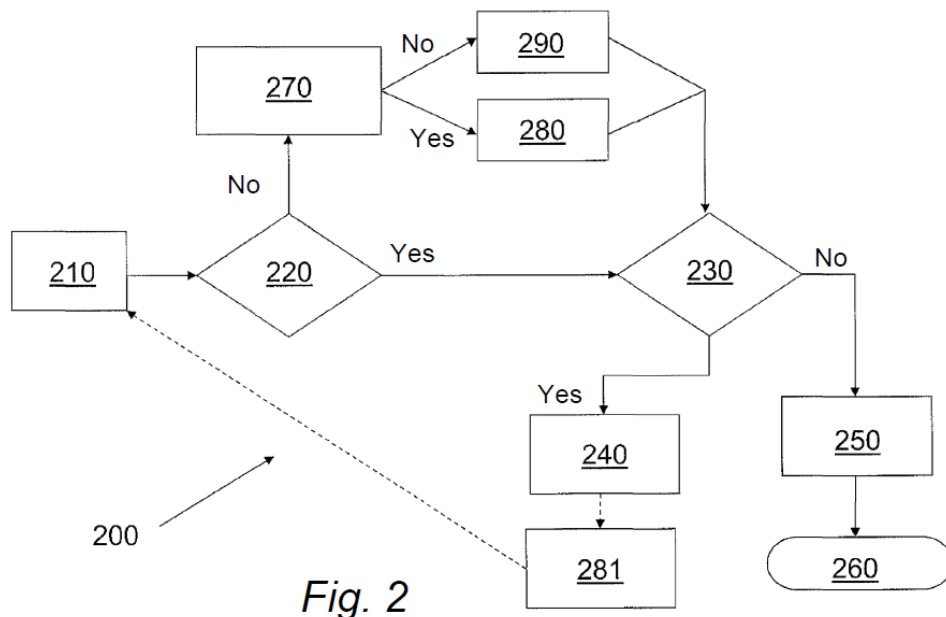


Figure 2 of Van Boucq, above, depicts an operational flow diagram of a communication system according to one embodiment. *Id.* ¶ 59. At step 210, an ad window appears as an internet user accesses a website, and, at step 220,

the HTTP (hypertext transfer protocol) communication protocol . . . is verified by the web browser to determine whether the Internet user has already previously geolocated him/herself and already has a cookie (connection cookie), which makes it possible to determine whether the geolocation of said Internet user has already been stored in a browsing device.

Id. ¶ 60. If, at step 220, it is determined that the user has not previously been geolocated, and the user's location is unknown, a pop-up message will ask the user if they would like to be geolocated at step 270. *Id.* ¶ 63. If the user agrees, the user is geolocated via the user's web browser and a location service at step 280. *Id.* ¶ 68. If the user refuses to be geolocated or ignores the pop-up, the communication system will still geolocate the user based on the user's IP address at step 290. *Id.* ¶ 63. After a user has been geolocated in step 280 or step 290, or if it is determined in step 220 that the user has been previously geolocated, the communication system proceeds to step 230 and searches an ad database to determine if there is a local ad that corresponds to the user's geolocation. *Id.* ¶¶ 60, 64, 69. If a local ad corresponding to the user's geolocation is found in the database, the local ad is displayed to the user. *Id.*

3. Maginnis

Maginnis is titled "Estimating Foot Traffic Lift in Response to an Advertisement Campaign at an Online System." Ex. 1010, code (54). Maginnis describes determining the effectiveness of an online advertising campaign using a system that estimates a store's foot traffic based on location data for users in the vicinity of the store. *Id.* at 1:38–44. In particular, the system includes a location module that determines the location of a user by accessing location data from the user's device and storing the data in a user profile. *Id.* at 9:5–10. The location module converts raw location data received from the user's device into a corresponding address via reverse geocoding. *Id.* at 9:19–25.

E. *Obviousness of Claims 1–20 Over Doughty and Van Boucq*

Petitioner contends that claims 1–20 of the '947 patent would have been unpatentable under 35 U.S.C. § 103 as obvious over Doughty and Van Boucq. Pet. 19–53. Patent Owner argues that Doughty and Van Boucq do not disclose or suggest limitations 1[c], 1[d], 1[e], 1[f], and 1[l], and one of ordinary skill in the art would not have been motivated to combine the references as proposed by Petitioner. PO Resp. 23–56.

1. Motivation to Combine Doughty and Van Boucq

Petitioner argues that a person of ordinary skill in the art would have been motivated to combine the teachings of Doughty and Van Boucq. Pet. 19–21. In particular, Petitioner submits that Doughty describes finding the user's location to help with its targeted advertising method, but does not expressly detail how to determine the user's location beyond identifying a number of known methods. *Id.* at 19–20. Petitioner argues that a person of ordinary skill in the art “thus would have been motivated to look at other references in the same field of targeted advertising on the internet that provide further detail regarding the methods identified by Doughty and how to determine the user's location, such as Van Boucq.” *Id.* at 20 (citing Ex. 1007 ¶ 130). Petitioner further asserts that a person of ordinary skill in the art “would have likewise found it obvious to implement the geolocation methods described in Van Boucq to determine the user's location as already contemplated by Doughty.” *Id.* (citing Ex. 1008, 26:44–51, 8:35–56; Ex. 1007 ¶¶ 131–132). Petitioner contends that a person of ordinary skill would have had a reasonable expectation of success. *Id.* (citing Ex. 1008, 19:40–46). Petitioner also argues that a person of ordinary skill in the art would have understood that incorporating Van Boucq's user location

teachings to Doughty would have been applying a known technique to a known system ready for improvement to yield predictable results. *Id.* at 21.

We find that Petitioner has shown a persuasive motivation to combine. Patent Owner does not dispute Petitioner’s general motivation to combine the references. Patent Owner does dispute Petitioner’s specific motivation to combine certain teachings in Doughty and Van Boucq for limitations 1[c], 1[d], and 1[e]. We address the motivations for those specific combinations and modifications below.

2. Claim 1

a) 1[pre] “A method comprising”

Petitioner contends Doughty alone or in combination with Van Boucq discloses this limitation. Pet. 19. Petitioner submits that Doughty discloses “improved methods” “directed to targeting advertising to mobile and non-mobile communication facilities accessed by the same user.” *Id.* (citing Ex. 1008, 5:28–30) (emphasis omitted). Petitioner notes that Van Boucq similarly discloses “a geolocation method for delivering advertisements.” *Id.* (citing Ex. 1009 ¶ 1) (emphasis omitted). Thus, Doughty and Van Boucq both disclose methods of delivering targeted advertisements using the user’s location. *Id.* (citing Ex. 1007 ¶ 136).

Patent Owner does not dispute that the combination discloses the preamble. *See* PO Resp. 23 (arguing that the prior art fails to disclose limitations 1[c], 1[d], 1[e], 1[f], and 1[l] only). Based on Petitioner’s arguments and evidence, we find that, to the extent the preamble is limiting, Petitioner has shown by a preponderance of the evidence that the combination discloses the preamble.

b) 1[a]: receiving first anonymous data associated with a first browser session initialized by a user via a browser on a user computing device, wherein the first anonymous data comprises one or more of a time, a date, one or more uniform resource locators (URLs), a referring URL, a browser type, a language, an internet protocol (IP) address, or location data

Petitioner contends Doughty discloses and/or renders obvious this limitation. Pet. 21–23. Petitioner submits that Doughty discloses “receiv[ing] information relating to the user’s activity.” *Id.* at 22 (citing Ex. 1008, 10:34–40). Petitioner notes Doughty explains that the received information can include anonymous “information, such as the IP address” and “the type of browser.” *Id.* (citing Ex. 1008, 17:18–19). Petitioner further notes that the system can track information related to specific browser sessions, including

one or more of: (a) a URL of each respective web page; (b) a time of visiting each respective web page [which a POSITA would have understood includes the date]; (c) a duration of visiting each respective web page; (d) an order in [which] each web page is visited; and (e) a geographic location of the first and second device at the time of visiting each respective web page.

Id. (citing Ex. 1008, 6:19–25; Ex. 1007 ¶¶ 137–138).

Petitioner argues that

[g]iven that Doughty discloses tracking the URL, time of visiting, duration of visiting for each web page, and order of each web page, a POSITA would have understood that Doughty discloses tracking “data associated with a first browsing session initialized by a user via a browser on a user computing device.”

Id. (citing Ex. 1007 ¶¶ 139–140; Ex. 1008, code (54)).

Petitioner alternately contends that

it would have been obvious to a POSITA to track this information about the user based upon the user's browsing sessions, particularly because . . . Doughty already discloses tracking the URL, time of visiting, and duration of visiting for each web page and also tracking information across multiple devices with different browsing sessions.

Id. at 23 (citing Ex. 1007 ¶ 142).

Patent Owner does not dispute that the combination discloses limitation 1[a]. *See* PO Resp. 23. Based on Petitioner's arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

c) 1[b]: determining that the user accessed a URL during the first browser session

Petitioner contends Doughty discloses and/or renders obvious this limitation. Pet. 23–24. Petitioner asserts that Doughty discloses tracking the URL of “each respective web page” visited by a user, including “an order in which each web page is visited.” *Id.* at 23 (citing Ex. 1008, 6:19–25). Petitioner submits that “[b]y tracking respective web pages and the order in which they are visited, a POSITA would have understood that the system is determining that the user accessed a URL during a particular browsing session.” *Id.* at 23–24 (citing Ex. 1007 ¶ 144). Petitioner argues that “[a]lternatively, it would have been obvious to a POSITA to determine that the user accessed a particular URL during a particular browsing session (including different browsing sessions on different devices).” *Id.* at 24 (citing Ex. 1007 ¶ 145).

Patent Owner does not dispute that the combination discloses limitation 1[b]. *See* PO Resp. 23. Based on Petitioner's arguments and

evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

d) 1[c]: determining that the user has not been assigned a unique identifier based on a lack of stored location data for the user computing device

e) 1[d]: assigning the unique identifier to the user⁷

(1) Claim Limitations

Petitioner contends that Doughty alone or in combination with Van Boucq discloses limitation 1[c]. Pet. 24–27. Petitioner notes that Doughty explains that the system will “determin[e] that a pre-existing universal profile has not been created.” *Id.* at 24 (citing Ex. 1008, 6:25–30).

Petitioner contends that it would have been obvious to a POSITA that, “to determine whether the user has been assigned a unique identifier (i.e., has a profile set up), Doughty’s system checks whether it has previously stored the user’s unique ID by checking for a cookie or other file it previously stored on the user’s device.” *Id.* (citing Ex. 1007 ¶¶ 147–149). Petitioner notes that “Doughty recognizes that the user’s device may include cookies or pixel tags previously served by advertisers that need to be matched to a unique ID.” *Id.* at 24–25 (citing Ex. 1008, 16:51–17:27). Petitioner reasons that “when Doughty’s system determines a profile does not exist, it is ‘based on a lack of stored location data for the user computing device.’” *Id.* at 25.

Petitioner also argues that “[t]o the extent Doughty does not disclose and/or render obvious this limitation, a POSITA would have been motivated to look for methods of determining whether the user has not yet been assigned a unique ID based on a lack of stored location data.” *Id.* Petitioner

⁷ We group these limitations together because they are argued together.

submits that “Van Boucq explains that the determination of whether or not the user has a profile and unique ID may be done by checking if the Internet user already has a geolocation cookie on the computing device.” *Id.* at 25–26 (citing Ex. 1009 ¶ 60 (“the HTTP (hypertext transfer protocol) communication protocol 220 is verified by the Web browser to determine whether the Internet user has already previously geolocated him/herself and already has a cookie (connection cookie)”) (emphasis omitted)).

Petitioner contends Doughty discloses limitation 1[d]. Pet. 27–28. Petitioner notes that Doughty discloses that the system “assigns a unique identifier” to a user and then stores that unique identifier with the other user information in the profile. *Id.* at 27 (citing Ex. 1008, 10:45–50). Petitioner argues that Doughty explains that the unique identifier may be, for example, created by hashing information about the user. *Id.* (citing Ex. 1008, 10:45–50, 17:28–32; Ex. 1007 ¶ 156). Petitioner asserts that a POSITA “would have understood that assigning a ‘unique identifier to the user’ necessarily means the identifier is ‘unique to the user’ because if [the] identifier was not unique to the user, the system would not be able to identify specific users.” *Id.* (citing Ex. 1007 ¶ 157). Petitioner argues that a POSITA “also would have understood that the assignor of the unique identifier (e.g., website server/system) would know the correlation to the user because, without tracking that correlation between the identifier and the user, the system would not be able to identify the user later.” *Id.* at 27–28 (citing Ex. 1007 ¶ 157).

Patent Owner argues that Petitioner has failed to show that either Doughty or Doughty in combination with Van Boucq discloses these

limitations. *See* PO Resp. 24–33. Patent Owner contends that “the claim does not merely assign any unique identifier,” but rather

the claim recites a particular way of assigning a unique identifier—making a determination that the user has not been assigned a unique identifier based on a lack of stored location data for the user computing device—and assigning that same unique identifier based on the lack of stored location data.

Id. at 24. Patent Owner argues that “[t]hese limitations are not taught by or rendered obvious by either Doughty and/or Van Boucq because neither teaches or suggests making the claimed determination ‘based on a lack of stored location data for the user computing device’ and assigning the unique identifier that was determined not to be assigned.” *Id.* (citing Ex. 2012 ¶¶ 110–131). Patent Owner argues Doughty alone does not disclose these limitations because Doughty assigns a unique identifier upon receiving user activity, which is unrelated to any determination “based on a lack of stored location data for the user computer device.” *Id.* at 26 (citing Ex. 1001, 47:54–57). Patent Owner asserts that Petitioner’s “cookie check” argument based on Doughty alone does not render these limitations obvious because this argument “is directed towards the unclaimed Unique Identifier/Tracker Embodiment of the ’947 [p]atent, not the claimed Unique Identifier/Lack of Stored Location Data Embodiment.” *Id.* at 27. Patent Owner contends that

Mr. Wil[l]iams’ cookie check obviousness argument is akin to the unclaimed Unique Identifier/Tracker Embodiment where “the computing device may determine whether there is a unique identifier for associated with the user based on presence of a location tracker (e.g., cookie) installed in the browser application on the user computing device” (Ex-1001, 9:55-59, 9:30-34, 43:59-63). In contrast, in the ’947 [p]atent’s claimed Unique Identifier/Lack of Stored Location Data Embodiment, “the computing device may access a database or other storage

location that maintains a mapping of unique identifier to a browser session, a user computing device, and/or location data” (Ex-1001, 9:52-55, 39:26-30, 43:55-59).

Id.

Patent Owner also argues that Petitioner’s “cookie check” obviousness theories “make no sense in view of Doughty,” because “[t]here is no teaching or suggestion in the record that Doughty’s Profile ID or advertising network ID is stored at the user computing device, much less in a cookie at the user computing device.” *Id.* at 27–28. Patent Owner asserts that “[b]ecause Doughty’s Profile ID is assigned based on a variety of activity information, a POSITA would not have been motivated to modify Doughty to look in Doughty’s table 105 for a lack of stored location data to determine whether a unique identifier had not been assigned.” *Id.* at 29. Patent Owner submits that “[i]f a POSITA looked in Doughty’s table 105 for stored location data and did not find the stored location data, the POSITA could not conclude that a unique identifier had not been assigned because a unique identifier may have been assigned based on a variety of other activity information.” *Id.* Thus, Patent Owner argues that “a POSITA would not have been motivated to modify Doughty to perform an analysis that would yield an incorrect conclusion.” *Id.* at 29–30.

With respect to the asserted combination with Van Boucq, Patent Owner contends that “[a]s Van Boucq’s cookie check is akin to the unclaimed Unique Identifier/Tracker Embodiment of the ’947 [p]atent, not the claimed Unique Identifier/Lack of Stored Location Data Embodiment[,] Petitioner and Mr. Williams’ argument again is nonresponsive to the claim.” *Id.* at 31 (citing Ex. 2012 ¶¶ 125, 126). Patent Owner also argues that Van Boucq’s cookie check determines whether the Internet user already has a

connection cookie, but “a positive determination that Van Boucq’s cookie was assigned (assuming Van Boucq’s cookie has a unique identifier) is not determining that a unique identifier was not assigned, much less making the not-assigned determination as claimed.” *Id.* Patent Owner asserts that “[a] positive determination is not a negative determination,” and “[c]laim 1 recites determining an identifier was not assigned.” *Id.*

Patent Owner further contends that Petitioner’s argument fails because limitation 1[c] “does not recite looking for a unique identifier and concluding from the lack of a unique identifier that no unique identifier was assigned.” *Id.* at 32. Patent Owner asserts that “[c]laim 1 goes a step further because the claims are directed to the issue of receiving ‘anonymous data.’” *Id.* (citing Ex. 1001, 47:45). Patent Owner argues that “[b]ecause the data is anonymous, limitation 1[c] makes the claimed determination by using the ‘lack of stored location data for the user computing device.’” *Id.* (Ex. 1001, 47:54–56).

Patent Owner submits that “if the Van Boucq user cleared cookies, Van Boucq’s cookie check would conclude that no unique identifier had been assigned, which may be incorrect.” *Id.* Thus, Patent Owner concludes that “Van Boucq does not teach or suggest what is claimed—looking to see if there is a lack of stored location data in Van Boucq’s system for the user (*e.g.*, stored location data that is mapped to a previously assigned unique identifier and assigning a unique identifier if there is no stored location data).” *Id.* (citing Ex. 1001, 9:52–55, 39:26–30, 3:55–59; Ex. 2012 ¶ 129). Finally, Patent Owner notes that, as for Van Boucq’s pop-up, “Van Boucq’s pop-up process is determining an answer to a question and assigning a cookie, not making the claimed determination based on the lack of location

data and assignment based on that determination.” *Id.* at 33 (citing Ex. 2012 ¶ 130).

We find that Petitioner has shown that the combination of Doughty and Van Boucq accounts for these limitations. We are not persuaded by Patent Owner’s arguments that claim 1 somehow excludes, what Patent Owner calls, the “Unique Identifier/Tracker Embodiment.” *See* PO Resp. 27, 31. Beginning with the language of the claims, the claims are silent as to where the “location data” recited in limitation 1[c] is stored. *See* Tr. 21:7–16 (Patent Owner agreeing that “the stored location data does not actually have a required location at all” in the claim, and need not be stored in a database). Nor does Patent Owner direct us to any claim language that would specifically exclude “location data” stored on the user’s device. *See* Sur-reply 2–3. “The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee clearly redefines the term (lexicography) or disavows claim scope (claim disavowal).” *Aortic Innovations LLC v. Edwards Lifesciences Corp.*, 159 F.4th 1, 8 (Fed. Cir. 2025) (citing *Thorner v. Sony Comput. Ent. Am. LLC*, 669 F.3d 1362, 1367 (Fed. Cir. 2012)). Patent Owner directs us to statements in the Specification, stating “[f]or example, the computing device may access a database or other storage location that maintains a mapping of unique identifier to a browser session, a user computing device, and/or location data.” Ex. 1001, 9:52–55; *see also id.* at 39:26–30 (same), 43:55–59 (same). But none of those passages amounts to lexicography or disavowal of claim scope. Indeed, when read in their full context, these passages support a broad reading, not a narrow reading, of the claims. The full passage of the Specification states:

The computing device may determine, at 406, whether there is a unique identifier that is associated with the user (e.g., the user computing device, the browser, and/or the browser session) stored on the computing device. For example, the script may inform the computing device that there is no unique identifier for the user computing device. The computing device may determine that there is no unique identifier associated with the user computing device when there is no location data stored for the user computing device. For example, the computing device may access a database or other storage location that maintains a mapping of unique identifier to a browser session, a user computing device, and/or location data. Additionally or alternatively, the computing device may determine whether there is a unique identifier for associated with the user based on presence of a location tracker (e.g., cookie) installed in the browser application on the user computing device.

Ex. 1001, 9:43–59.

The passage above is full of language that indicates that the patentee did not intend to limit the claims to a single embodiment. Indeed, the specific portion of the passage cited by Patent Owner begins with “[f]or example” and further states “[a]dditionally or *alternatively*, the computing device may determine whether there is a unique identifier for associated with the user based on presence of a location tracker (e.g., cookie) installed in the browser application on the user computing device.” *Id.* at 9:52–59 (emphasis added). Moreover, the Specification states “[a]dditionally or alternatively, the computing device may determine the location data using the tracker installed in the browser application on the user computing device.” *Id.* at 10:2–5. The Specification also explains that the tracker may “maintain data related to the user and/or user computing device.” *Id.* at 12:62–63. Based on these disclosures, we find that the Specification supports a reading where the location data are stored in the user computing

device. Thus, we disagree that the claims are somehow limited to exclude the so-called “Unique Identifier/Tracker Embodiment.”

As for Patent Owner’s argument that Van Boucq only makes a “positive determination” that a user has been previously geolocated, not a negative determination that the unique identifier was not assigned, we also do not find this argument to be persuasive. PO Resp. 31. Petitioner explains that either with Doughty alone or in the combination with Van Boucq that “[i]t would have been obvious to a POSITA that, to determine whether the user has been assigned a unique identifier (i.e., has a profile set up), Doughty’s system checks whether it has previously stored the user’s unique ID by checking for a cookie or other file it previously stored on the user’s device.” Pet. 24. Petitioner builds on this contention in the combination with Van Boucq by explaining that “Van Boucq explains that the determination of whether or not the user has a profile and unique ID may be done by checking if the Internet user already has a geolocation cookie on the computing device.” *Id.* at 25–26. The Petition goes on to explain that “[a] POSITA would have been motivated to, and found it obvious to, check for a similar cookie or file on the user’s computer, as disclosed, in Van Boucq when making that determination in Doughty because a POSITA would have realized this is an efficient and commonly used means to determine whether the user has already been assigned a unique ID.” *Id.* at 26. Thus, we agree with Petitioner that, in combination, if the system fails to find a connection cookie (i.e., location information) stored on the user’s computer, it amounts to a determination that the user has not been assigned a unique identifier. *See* Ex. 1066 ¶¶ 40–41.

Patent Owner further argues that limitation 1[c] “does not recite looking for a unique identifier and concluding from the lack of a unique identifier that no unique identifier was assigned.” PO Resp. 32. However, in the combination, the system looks for the tracking cookie, which includes location data in addition to the unique identifier, so the combination does not look for the lack of a stored unique identifier but rather the lack of stored location data, i.e., the tracking cookie.

Patent Owner also contends that, if the cookies stored on the user computing device are cleared, then Van Boucq’s cookie check could give an incorrect result. *Id.* at 32. We do not find this persuasive because “combinations of prior art that sometimes meet the claim elements are sufficient to show obviousness.” *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1002 (Fed. Cir. 2016) (citing *Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1326 (Fed. Cir. 2003)); *see also* *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009) (“Just as anticipation can be found by a single prior art use, a finding of infringement can rest on as little as one instance of the claimed method being performed during the pertinent time period.”). Moreover, there is nothing in the claims that requires that the method always give the correct result or provide a particular level of accuracy. Thus, we do not agree that the fact that clearing the cookies could, in some instances, result in an incorrect result negates the combination’s teaching of this limitation.

Patent Owner further argues that Van Boucq discloses creating a connection cookie regardless of whether the user opts into or out of location tracking. PO Resp. 33. However, we agree with Petitioner that this is irrelevant because limitation 1[c] only recites making the determination

based on the lack of stored location data, not whether the user has opted into, or out of, location tracking. Reply 15.

Finally, we disagree with Patent Owner's argument that Doughty does not teach limitation 1[d]. *See* PO Resp. 25–26. The claim limitation only requires “assigning the unique identifier to the user,” and does not recite any requirement on what the assignment is based on, as Patent Owner argues. Moreover, even if the claim had such a requirement, the Petition explains, in its discussion of limitation 1[c], that, in the asserted combination, the determination is based on the lack of stored location information. *See* Pet. 24–27. Thus, Patent Owner's argument is not persuasive because it attacks the references individually and not the combination of the teachings as proposed in the Petition.

(2) *Motivation to Combine*

Petitioner argues that a

POSITA would have been motivated to, and found it obvious to, check for a similar cookie or file on the user's computer, as disclosed, in Van Boucq when making that determination in Doughty because a POSITA would have realized this is an efficient and commonly used means to determine whether the user has already been assigned a unique ID.

Id. at 26 (citing Ex. 1007 ¶ 153). Petitioner notes that “Doughty discloses storing a cookie or another file with the unique ID on the user's computer, which a POSITA would have recognized could have been used to check whether the user has already been assigned a unique ID.” *Id.* (citing Ex. 1008, 16:59–17:33; Ex. 1007 ¶ 153).

Petitioner asserts that a POSITA

would have understood that incorporating Van Boucq's geolocation teachings to Doughty (1) would have simply been

applying a known technique to a known system ready for improvement to yield predictable results; and (2) would have been one of a finite number of identified predictable solutions for determining whether the user has already been assigned a unique ID that had a reasonable expectation of success.

Id. (citing Ex. 1007 ¶ 153).

Patent Owner responds that “Petitioner’s combination of Van Boucq for limitation 1[c] with Doughty for limitation 1[d] makes no sense.” PO Resp. 33. Patent Owner argues that “Van Boucq’s ‘connection cookie’ has neither Doughty’s unique identifier from table 105 nor Doughty’s hashed email address,” and “[n]othing in the record suggests that Van Boucq’s connection cookie could contain any information about either Doughty’s table 105 Profile ID or Doughty’s hashed email address.” *Id.*

We find persuasive Petitioner’s reasoning that a POSITA would have been motivated to modify Doughty, based on Doughty’s own teachings regarding cookies and similar files, and would have recognized that the techniques of Van Boucq would have offered an efficient and commonly used way to determine whether the user already has been assigned a unique identifier. *See* Ex. 1007 ¶ 153. Patent Owner’s arguments about the precise contents of Van Boucq’s connection cookie attack Van Boucq individually and ignore the combination and modifications that Petitioner proposes. In the combination, Petitioner proposes incorporating the unique identifier from Doughty into Van Boucq’s connection cookie. *See* Pet. 26 (citing Ex. 1008, 16:59–17:33; Ex. 1007 ¶ 153). As for Patent Owner’s contention that “[n]othing in the record suggests that Van Boucq’s connection cookie could contain any information about either Doughty’s table 105 Profile ID or Doughty’s hashed email address,” PO Resp. 33, as Dr. Gottesman testifies,

“[a] cookie is a small piece of data (text file).” Ex. 2012 ¶ 55. We fail to see why a skilled artisan at the time of the invention would have any difficulty incorporating Doughty’s alphanumeric unique identifier into a text file. *See* Ex. 1007 ¶¶ 153, 166. Thus, we find that Petitioner has shown a motivation to combine Doughty and Van Boucq for these limitations.

(3) *Summary*

Thus, we find that Petitioner has shown by a preponderance of the evidence that the combination of Doughty and Van Boucq accounts for this limitation.

f) 1[e]: determining whether the user opted-in to or out of location tracking, based on whether a location tracker is installed on the user computing device

(1) *Claim Limitations*

Petitioner contends Doughty alone or in combination with Van Boucq renders obvious this limitation. Pet. 28–31. With respect to Doughty alone, Petitioner argues that Doughty renders obvious determining whether the user opted-in to or out of location tracking in the system in Doughty. *Id.* at 28–29. Petitioner notes that Doughty discloses determining and tracking the user’s geographic location as part of the user’s profile. *Id.* at 28 (citing Ex. 1008, 6:19–25, 15:49–16:27). Petitioner also notes that Doughty recognizes that users may turn off browser cookies. *Id.* (citing Ex. 1008, 17:24–27; Ex. 1007 ¶ 159). Thus, Petitioner contends that a POSITA would have understood that Doughty contemplates location tracking without cookies, including third-party cookies. *Id.* (citing Ex. 1007 ¶¶ 159–161). Petitioner submits that “because location tracking is important to the profile consolidation system described in Doughty, a POSITA would have understood the importance of determining the user’s location even if the user

opted-out of sharing location data.” *Id.* at 28–29 (citing Ex. 1008, 15:18–48, 17:57–59, 20:52–64). Petitioner argues that a POSITA “therefore would have been motivated to find an alternative means of locating the user in Doughty’s system, even when the user has opted-out of location sharing.” *Id.* at 29 (citing Ex. 1007 ¶ 161).

Petitioner also contends that a POSITA “would have been motivated to look for references in the same field of art that describe how to determine whether a user opted-in or out of location tracking.” *Id.* Petitioner submits that a POSITA “would have been motivated to do so because location tracking is important to the profile consolidation system described in Doughty, and therefore, a POSITA would have understood the importance of determining the user’s location even if the user opted-out of sharing location data.” *Id.* at 29–30 (citing Ex. 1008, 15:18–48, 17:57–59, 20:52–64; Ex. 1007 ¶¶ 162–164).

Petitioner notes that, according to Van Boucq, “[i]f [the] Internet user refuses to be geolocated or ignores the pop-up, the communication system will still locate the Internet user according to the IP address 290 of that user’s connection to a computer network.” *Id.* at 30 (alteration in original) (emphasis omitted) (citing Ex. 1009 ¶ 63; Ex. 1007 ¶¶ 163–164). In addition, Petitioner contends that Van Boucq discloses determining that the user opted-in to location tracking based upon a location tracker (cookie) already being installed on the user’s device, consistent with Patent Owner’s proposed construction in the district court case. *Id.* (citing Ex. 1007 ¶¶ 163–164). Petitioner contends that a POSITA “would have understood, or it would have been obvious, that this location tracking cookie could be a third-

party or first-party cookie because those were the two types of commonly used cookies.” *Id.* at 30–31 (citing Ex. 1007 ¶¶ 163–164).

Petitioner submits “that checking for this cookie would have been an efficient means of determining whether the user opted-out of location tracking, particularly given that Doughty already recognizes the possibility that the user opted-out of third-party cookies.” *Id.* at 31 (citing Ex. 1008, 17:24–27; Ex. 1007 ¶¶ 163–164). Petitioner argues that a POSITA “would have been motivated to combine this method of determining when the user opted-out of location sharing with the system in Doughty because, as described [for limitation] 1[c], a POSITA would have understood the importance of determining the user’s location for profile consolidation.” *Id.* (citing Ex. 1008, 19:37–49; Ex. 1007 ¶¶ 163–164).

Patent Owner argues that neither Doughty nor Van Boucq teach this limitation. *See* PO Resp. 34–41; Sur-reply 9–17. With respect to Doughty, Patent Owner notes Petitioner acknowledges that Doughty does not disclose this limitation, but rather Doughty would render it obvious. PO Resp. 34–37. Patent Owner asserts that this conclusion is based on a number of unsupported assumptions and gap-filling. *Id.* With respect to Van Boucq, Patent Owner makes several arguments. First, Patent Owner argues that Petitioner improperly relies on Van Boucq’s cookie check for both limitations 1[c] and 1[e]. *Id.* at 37. Second, Patent Owner contends that Van Boucq does not disclose the claimed “location tracker” because “Van Boucq discloses a static location, not location tracking.” *Id.* at 37–38.

Finally, Patent Owner argues that “the presence of Van Boucq’s connection cookie is not a determination of whether the user opted in or out of location tracking,” because the presence of the connection cookie

“indicates that the user either agreed to the pop up, declined the pop-up, or ignored the pop-up and provides no determination of opting in or out.” *Id.* at 39. Thus, Patent Owner contends that “the absence of a ‘connection cookie,’ informs only that the user was not provided a connection cookie,” and “[a]s Van Boucq provides a connection cookie regardless of opting in or opting out, the absence of a cookie means that the user was never connected to the service, the user cleared cookies, or the user disabled cookies,” not whether the user has opted out of location tracking. *Id.*

We find that Petitioner has shown that the combination of Doughty and Van Boucq teaches this limitation. First, we disagree with Patent Owner that Petitioner’s mapping is deficient for relying on the same cookie check for both limitations 1[c] and 1[e]. PO Resp. 37. The parties’ agreed upon construction for “determining that the user has not been assigned a unique identifier” in limitation 1[c] is “a ‘unique identifier’ that was not previously assigned when it was *previously determined that the user had opted out of location tracking.*” See Pet. 15–16 (citing Ex. 1031, 16) (emphasis added); PO Resp. 23 (stating that Patent Owner “applies plain and ordinary meaning, as identified by Petitioner” in the Petition). The agreed upon construction for “upon determining that the user opted-out of location tracking” in limitation 1[f] (which refers to the “determining” of limitation 1[e]) is “upon determining that the user opted-out of location tracking by the lack of a (‘tracker (e.g., cookie)’).” *Id.* In other words, the agreed upon claim constructions tie the determinations in limitations 1[c] and 1[e] together, where the determination that the user has not been assigned a unique identifier (limitation 1[c]) uses the determination that the user has opted out of location tracking (limitation 1[e]). Thus, Petitioner’s reliance on the

“cookie check” for both limitations 1[c] and 1[e] is consistent with the agreed upon claim constructions in this case.

Moreover, the Petition also explains that “[a]ccording to Van Boucq, *‘[i]f said Internet user refuses to be geolocated or ignores the pop-up, the communication system will still locate the Internet user according to the IP address 290 of that user’s connection to a computer network.’*” Pet. 30 (citing Ex. 1009 ¶ 63). As the Petition explains, “[b]ecause Van Boucq discloses locating the user via a different method when she opts-out, it would have been obvious to a POSITA that the system must also determine if the user ‘refuses to be geolocated.’” *Id.* (citing Ex. 1007 ¶¶ 163–164).

The Petition further explains that “[a] POSITA would have also understood . . . that the user may still opt-in to location tracking even if she ignores the pop-up,” and “Van Boucq discloses that the system can determine whether the user refused to be geolocated by checking whether the web browser ‘already has a cookie (connection cookie)’ to determine if the user has already been geolocated—i.e., the user opted-in to location tracking.” *Id.* (citing Ex. 1009 ¶ 63). We agree with Petitioner’s contention that Van Boucq therefore teaches “determining that the user opted-in to location tracking based upon a location tracker (cookie) already being installed on the user’s device,” which is consistent with the agreed upon construction. *Id.* (citing Ex. 1007 ¶¶ 163–164). We further agree with Petitioner that, even if there are some situations where the cookie check is overinclusive, there are situations where the cookie check does make the claimed determination of whether a user has opted out of location tracking. *See Unwired Planet*, 841 F.3d at 1002.

We disagree with Patent Owner’s contention that Van Boucq fails to disclose a “location tracker.” PO Resp. 37–38. Patent Owner’s contention seems to boil down to a requirement that the location be updated continuously, and not a static location. *See id.* Patent Owner asserts that this is the “plain meaning of ‘location tracker’” and that “[a] single saved location at one point in time that is not updated is not a ‘location tracker.’” Sur-reply 11. However, Patent Owner identifies no support in the Specification for such a narrow construction. Patent Owner’s construction in the district court, which Petitioner agrees with, defines a “location tracker” as “the third-party tracking cookie described in the patent specification (‘tracker (e.g., cookie)’).” Pet. 15 (citing Ex. 1031, 15–16). And Patent Owner’s expert testified in his declaration that “[a] cookie is a small piece of data (text file) comprising data bits generated by a website that remembers information about users and website usage.” Ex. 2012 ¶¶ 42, 55. Thus, we decline to adopt Patent Owner’s construction that requires dynamic updating.

Moreover, even if we adopted such a construction, we find that Van Boucq still teaches or suggests such a “location tracker.” *See* Reply 20. For example, Van Boucq discloses that, when a cookie is created when the user opts out of location tracking, the cookie has limited lifespan. Ex. 1009 ¶ 63; Ex. 1066 ¶ 53. Because Van Boucq discloses a lifespan, we agree with Petitioner that a POSITA would have understood that the cookie would be updated or re-created after that lifespan expires, making the location stored in the connection cookie a dynamic (changing) location. Ex. 1066 ¶ 54.

(2) *Motivation to Combine*

Petitioner argues that “it would have been obvious to a POSITA that checking for [the cookie of the asserted combination] would have been an efficient means of determining whether the user opted-out of location tracking, particularly given that Doughty already recognizes the possibility that the user opted-out of third-party cookies.” Pet. 31 (citing Ex. 1008, 17:24–27; Ex. 1007 ¶¶ 163–164). Petitioner contends that “[a] POSITA would have been motivated to combine this method of determining when the user opted-out of location sharing with the system in Doughty because, as described [for limitation] 1[c], a POSITA would have understood the importance of determining the user’s location for profile consolidation.” *Id.* (citing Ex. 1008, 19:37–49; Ex. 1007 ¶¶ 163–164).

Patent Owner argues that the “proposed combination and modification is inconsistent with and contradicted by the purported motivation.” PO Resp. 40. Patent Owner asserts that “[i]f the motivation is to look for a solution where cookies are not available, it makes no sense to combine Doughty with a reference that relies on cookies that would not be usable because cookies were disabled.” *Id.* Patent Owner contends that “[e]ach of the three ‘approach[es]’ taught by Van Boucq requires checking for a ‘cookie (connection cookie)’ . . . and/or the ‘creation of a cookie’ . . . in the user’s browser.” *Id.* Thus, Patent Owner argues that “[a] POSITA looking for a non-cookie solution would not look to a cookie reference like Van Boucq for a cookie solution that does not work when a user disables cookies.” *Id.* (citing Ex. 2012 ¶ 145).

We find that Petitioner has shown a motivation to combine Doughty and Van Boucq. Although Patent Owner is correct that the cited portion of

Doughty deals with completely turning off cookies, we agree with Petitioner that this represents a recognition that there are situations where a user may opt out of location tracking. *See* Ex. 1007 ¶¶ 163–164. “The motivation-to-combine analysis is a flexible one.” *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1379 (Fed. Cir. 2023). “[T]he motivation-to-combine analysis ‘need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.’” *Id.* at 1380 (quoting *KSR*, 550 U.S. at 418). A “motivation to combine may be found explicitly or implicitly in market forces; design incentives; the ‘interrelated teachings of multiple patents’; ‘any need or problem known in the field of endeavor at the time of invention and addressed by the patent’; and the background knowledge, creativity, and common sense of the person of ordinary skill.” *Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013). We find that Petitioner has shown that a person of ordinary skill in the art would have been motivated to improve the system described in Doughty to account for instances when a user opted-out of location tracking, using techniques such as the connection cookie taught by Van Boucq. *See* Pet. 31; Ex. 1007 ¶¶ 163–164. “[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR*, 550 U.S. at 417. We find this is the situation here. Thus, we find that Petitioner has shown a sufficient motivation to combine Doughty and Van Boucq in the manner suggested.

(3) *Summary*

Thus, we find that Petitioner has shown by a preponderance of the evidence that the combination of Doughty and Van Boucq accounts for this limitation.

g) 1[f]: sending, upon determining that the user opted-out of location tracking, the unique identifier to the user computing device for storage in a local browser cache

Petitioner contends Doughty in combination with Van Boucq renders obvious this limitation. Pet. 31–33. Petitioner submits that Van Boucq “discloses that, upon determining that the user opted-out of geolocation, the system ‘result[s] in the creation of a cookie.’” *Id.* at 31 (alteration in original) (citing Ex. 1009 ¶ 63). Petitioner argues that a POSITA “would have understood that the ‘creation of a cookie’ is typically accomplished by a server sending a cookie—which would contain a unique ID for the user—to the user’s device.” *Id.* at 31–32 (citing Ex. 1007 ¶ 165). Petitioner asserts that a POSITA “also would have understood that cookies are typically stored in the local browser cache for the user.” *Id.* at 32 (citing Ex. 1007 ¶ 165).

Petitioner notes that “[t]o the extent that Patent Owner argues that Van Boucq only discloses storing third-party cookies, nothing in the claims or in the proposed constructions precludes using a third-party cookie to store the unique identifier.” *Id.* Petitioner argues that “it would have also been obvious to a POSITA to use a first-party cookie or other tracking mechanism instead of a third-party cookie if third-party cookies were disabled, which Doughty recognizes could happen.” *Id.* (citing Ex. 1008, 17:24–27; Ex. 1007 ¶ 165). Petitioner submits that “Doughty discloses ‘serv[ing]’ a cookie or other file (e.g., pixel tag) to be stored on the user’s device.” *Id.*

(citing Ex. 1008, 16:59–17:5) (emphasis omitted). Petitioner contends that a POSITA “would have understood that the cookies disclosed in Doughty could be first-party cookies and pixel tags, which are not third-party cookies.” *Id.* (citing Ex. 1008, 17:12–14; Ex. 1007 ¶ 166).

Petitioner asserts that “[i]n view of Doughty’s and Van Boucq’s teachings, a POSITA therefore would have found it obvious to send a cookie with a unique ID, or another file like a pixel tag, with a unique ID for storage in the local browser cache upon determining that the user opted-out of location tracking.” *Id.* (citing Ex. 1007 ¶ 166).

Patent Owner argues Petitioner fails to establish that the combination of Doughty and Van Boucq accounts for this limitation. PO Resp. 41–53. First, Patent Owner asserts that Petitioner’s theory based on sending a cookie fails because “neither Doughty nor Van Boucq teach or suggest sending a cookie ‘for storage in a local browser cache.’” *Id.* at 42. In particular, Patent Owner contends that “[a] POSITA would have understood that cookies, as taught by Doughty and Van Boucq, are sent for storage in a dedicated storage area of the web browser referred to in the relevant standard as the ‘cookie store.’” *Id.* (citing Ex. 2012 ¶¶ 5, 55–61, 68, 150).

Second, Patent Owner argues that Petitioner fails to show the references teach sending the unique identifier “upon determining that the user opted-out of location tracking.” *Id.* at 48. Patent Owner asserts that neither Doughty nor Van Boucq sends a cookie or other file based on the recited determination as discussed with respect to limitation 1[e]. *Id.* at 48–49.

Third, Patent Owner asserts that, to the extent Petitioner relies on Doughty’s pixel tags, Petitioner fails to show that Doughty teaches or suggests including any identifier in a pixel tag. *Id.* at 49–51.

Finally, Patent Owner contends that limitations 1[c], 1[d], and 1[f] all claim the same unique identifier, and Petitioner has failed to show that identifiers cited by Petitioner for limitations 1[c] and 1[d] would be the same identifiers that would be sent to the user device for limitation 1[f]. *Id.* at 51–53.

We find that Petitioner has shown that the combination of Doughty and Van Boucq accounts for this limitation. *See* Pet. 31–33. As we explained above, we find that Petitioner has shown that the combination accounts for determining that the user has opted out of location tracking. We also find Van Boucq teaches the “creation of a cookie” upon determining that the user has opted out of location tracking, and that, based on the teachings of Doughty, this would involve sending the cookie to be stored on the user’s device. *Id.* at 31–32 (citing Ex. 1009 ¶ 63; Ex. 1008, 16:59–17:5). Petitioner also shows that a person of ordinary skill in the art would have been motivated to modify the cookie so that it would contain the unique identifier because it allows the system to identify the user by the unique identifier later. *See id.* at 33 (citing Ex. 1008, 16:59–17:27; Ex. 1007 ¶ 167). Additionally, we find that Petitioner has shown “serv[ing]” a cookie or other file (e.g., pixel tag) to be stored on the user’s device. *See* Pet. 32. As Petitioner explains, “advertisers track information about a user . . . via pixel tags,” and “[t]racking pixels are invisible image files (or pixels) that are served with a web page and stored on the user’s computer in the local browser cache.” *Id.* at 6 (citing Ex. 1007 ¶¶ 65–67). We find persuasive

Petitioner's contention, supported by the testimony of Mr. Williams, that it would have been obvious to store the unique ID in a pixel tag stored in the user's browser cache. *Id.* at 27, 32–33 (citing Ex. 1007 ¶¶ 154, 155, 159–161, 166, 167).

Patent Owner's arguments to the contrary are not persuasive. First, we disagree with Patent Owner that the "cookie store" is not a "local browser cache." Van Boucq explains repeatedly that the connection cookie is "stored in [the] browsing device." *See* Ex. 1009 ¶¶ 61, 65. Van Boucq also explains that the cookie is not permanent. *See id.* ¶ 63 ("If said Internet user refuses to be geolocated or ignores the pop-up, the communication system will still locate the Internet user according to the IP address 290 of that user's connection to a computer network, resulting in the creation of a cookie whose lifespan varies according to the browsing device. For example, the lifespan of a cookie can be shorter for a mobile browsing device than for a stationary browsing device."). As Mr. Williams persuasively testifies, "the connection cookies disclosed in Van Boucq are stored in the local browser cache," and "this would make sense to a POSITA because Van Boucq discloses that the cookies are stored in connection with the browser's storage and may be only stored *temporarily* (as is typical for a cache, which normally includes temporary storage)." Ex. 1066 ¶ 65 (emphasis added). Moreover, even if Patent Owner is correct about the distinction between the "cookie store" and the "local browser cache," Petitioner has shown that Doughty discloses the use of pixel tags, which Patent Owner does not dispute would be stored in the "local browser cache." *See* PO Resp. 49–50.

As for Patent Owner’s contention that Doughty only discloses the use of pixel tags in connection with cookies, PO Resp. 50 (citing Ex. 1008, 16:63–65, 17:24–27), we find persuasive Petitioner’s contention that a person of ordinary skill in the art “would have been motivated to store the connection cookie in the browser cache if, for example, the user disabled all cookies on the device, causing the browser to prevent storage of information in the cookie store.” Reply 24. Petitioner explains persuasively that “[a] POSITA would have recognized the benefits of storing the connection cookies in the browser cache because maintaining state for multiple visits to a website is important functionality provided by cookies and thus a POSITA would have been motivated to look for other places to store the cookies if the cookie store were disabled.” *Id.* (citing Ex. 1066 ¶ 68). Patent Owner’s arguments about the disclosure of Doughty, Sur-Reply 20–21, are unavailing because they focus on Doughty individually and not on the combination as modified by a POSITA’s knowledge that is actually presented by Petitioner. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986); *In re Keller*, 642 F.2d 413, 426 (CCPA 1981). Here, Petitioner has proposed modifying Doughty’s pixel tag in view of the combined teachings to contain the unique ID and be used, as in Van Boucq, to aid in tracking users who opt out of tracking, and does not simply rely on Doughty’s unmodified teachings. *See* Pet. 32–33 (citing Ex. 1007 ¶¶ 166–167).

Second, as explained above with respect to limitation 1[e], we find that Petitioner has shown sufficiently that the combination of Doughty and Van Boucq does teach a determination that a user opted out of location tracking. *See supra* § III.E.2.f. In the asserted combination, the user

identifier (i.e., data stored in the cookie or pixel tag) is sent “upon” making that determination.

Finally, we disagree with Patent Owner’s contention that Petitioner identifies different “unique identifiers” for limitations 1[c], 1[d], and 1[f]. PO Resp. 51–53. As Petitioner persuasively explains, Patent Owner is incorrect that Doughty discloses two separate and incompatible embodiments—the “Profile-ID Embodiment” and the “MKP-Embodiment.” Reply 2. As Petitioner notes, Doughty expressly explains that all of its embodiments are compatible and combinable. *See id.* (citing Ex. 1008, 26:51–54 (“[I]t is to be understood that the present invention contemplates that, to the extent possible, ***one or more features of any embodiment can be combined with one or more features of any other embodiment.***”) (emphasis added); 24:47–49 (“[E]ach method described [in Doughty] and combinations thereof may be embodied in computer executable code”). Moreover, we agree with Petitioner that the so-called MKP-Embodiment is an exemplary implementation of the Profile-ID Embodiment. *Id.* As Petitioner explains, both embodiments disclose assigning a unique identifier to a user and creating a profile for the user linked to that unique identifier, which is consolidated across the user’s devices. *See id.* (citing Ex. 1008, 15:14–17, 16:38–42, 10:46–48 (“assigns a unique identifier, which could be alphabetical, numerical, alphanumerical, or symbols”), 17:29–31 (“uniquely identify a user by creating a hashed (e.g., anonymized) email address upon noticing the user the first time”); 15:16–17 (“a universal profile that includes both first device 101 and second device 102”), 16:40–42 (“create a universal profile” “for the same user across wired web, mobile web, and mobile application traffic”)). We agree with Petitioner that a “POSITA would have

recognized that creating the hashed email address is an exemplary implementation of assigning a unique identifier.” *Id.* at 3. Further, we agree with Petitioner that “[t]he ‘Profile-ID Embodiment’ discloses that the unique identifier can be numerical, and a POSITA would have understood that a hash is designed to map different values to a unique number.” *Id.* (citing Ex. 1066 ¶ 13). Thus, we are not persuaded that Petitioner is citing fundamentally different “unique identifiers” for the different claim limitations.

Accordingly, we find that Petitioner has shown by a preponderance of the evidence that the combination of Doughty and Van Boucq accounts for this limitation.

h) 1[g]: determining a latitude coordinate and a longitude coordinate of the user computing device, during the first browser session, wherein the latitude coordinate and the longitude coordinate are determined based on the first anonymous data upon determining that the user opted-out of location tracking, and wherein the latitude coordinate and the longitude coordinate are determined based on geo-location data retrieved from the user computing device upon determining that the user opted-in to location tracking

Petitioner contends Doughty in combination with Van Boucq renders obvious this limitation. Pet. 33–35. In addition to the discussion above of determining whether the user opted-in to or opted-out of location tracking and tracking anonymous information, including URLs accessed and location data, during a first browser session, Petitioner relies on Van Boucq’s teachings of “opt-in” and “opt-out,” and use of latitude and longitude. *Id.*

In particular, Petitioner notes that Van Boucq further teaches, when the system determines the user opted-in, the system may determine the

location of the user in a number of ways, including “via a Web browser geolocation service” or in a “cookie” where the user has already previously been geolocated. *Id.* at 33–34 (citing Ex. 1009 ¶¶ 8, 63). Petitioner argues that “[i]n either case, a POSITA would have understood that the location is ‘determined based on geolocation data retrieved from the user’s computing device’—either from the browser or a cookie on the local browser cache . . . , both of which are on the user’s computer.” *Id.* at 34 (citing Ex. 1007 ¶ 169).

Petitioner also notes that “[w]hen the system determines the user opted-out, Van Boucq states that the user can be geolocated ‘according to the IP address 290 of that user’s connection to a computer network.’” *Id.* (citing Ex. 1009 ¶ 63). Petitioner contends that a POSITA “would have understood that the location is therefore determined based upon the IP address of the user’s connection.” *Id.* (citing Ex. 1001, 6:44–47; Ex. 1007 ¶ 170). Petitioner also asserts that location includes latitude and longitude coordinates of the user’s computing device. *Id.* (citing Ex. 1007 ¶ 171; Ex. 1009 ¶¶ 9, 56; Ex. 1008, 6:55–7:10, 16:9–27).

Patent Owner does not dispute that the combination discloses limitation 1[g]. *See* PO Resp. 23. Based on Petitioner’s arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

i) 1[h]: identifying a physical address for the user based on the determined latitude coordinate and the determined longitude coordinate using a map application programming interface (API)

Petitioner contends Doughty in combination with Van Boucq renders obvious this limitation. Pet. 35–36. Petitioner notes that Doughty and Van

Boucq describe determining the latitude and longitude of the user, whether the user opted-in to or out of location tracking. *Id.* at 35. Petitioner submits that Van Boucq further recognizes that geolocation can involve APIs, such as those associated with a browser like “Google Service Location,” “Microsoft Service Location,” and “Apple Location Service.” *Id.* (citing Ex. 1009 ¶¶ 31–36). Petitioner argues that a POSITA “would have understood that each of those services also can be used to turn latitude/longitude coordinates into physical addresses.” *Id.* (citing Ex. 1007 ¶ 173). Petitioner asserts that “[c]onverting latitude/longitude coordinates into physical addresses, a process called ‘reverse geocoding,’ was well-known by at least 2020 (i.e., before the earliest priority date).” *Id.* (citing Ex. 1007 ¶ 173; Ex. 1010, 9:19–25; Ex. 1020; Ex. 1021; Ex. 1022; Ex. 1023; Ex. 1024; Ex. 1025, 35). Petitioner submits that “[b]ecause Doughty specifically discloses storing home, work, and billing addresses (i.e., real, physical addresses), a POSITA would have been motivated to use these reverse geocoding APIs to turn the geographic coordinates into physical addresses based on those coordinates.” *Id.* at 36 (citing Ex. 1007 ¶ 174).

Patent Owner does not dispute that the combination discloses limitation 1[h]. *See* PO Resp. 23. Based on Petitioner’s arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

j) 1[i]: associating the unique identifier to the physical address

Petitioner contends Doughty alone discloses and/or renders obvious this limitation. Pet. 36–37. Petitioner submits that Doughty discloses creating a user profile connected with a unique ID, and that the profile/ID

may be associated with information, including “home address,” “work address,” and “billing address,” each of which are physical addresses. *Id.* (citing Ex. 1008, 8:13–56; Ex. 1007 ¶ 175). Petitioner argues that “[t]he system therefore associates the physical addresses stored in the profile with the unique ID.” *Id.* at 37 (citing Ex. 1007 ¶ 175). Petitioner asserts that “[a]lternatively, it would have been obvious to a POSITA that the system associates the physical address with the user’s unique ID given that this information is all stored in the user’s profile in which the information is associated.” *Id.* (citing Ex. 1007 ¶ 176).

Patent Owner does not dispute that the combination discloses limitation 1[i]. *See* PO Resp. 23. Based on Petitioner’s arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

k) 1[j]: generating a user profile for the user using the unique identifier and physical address, the user profile comprising profile information that comprises one or more URLs the user has accessed, a frequency with which the user accessed the URL(s), demographics associated with the user, the physical address(es) associated with the user, or devices associated with the user

Petitioner contends Doughty alone discloses and/or renders obvious this limitation. Pet. 37–38. Petitioner argues that “if the user does not yet have a unique ID, Doughty discloses that the system will generate a universal profile for that user that is associated with the unique ID.” *Id.* at 37. Petitioner notes that “Doughty further discloses that the profile will include the physical address(es) of the user.” *Id.* Petitioner submits that

[a]ccording to Doughty, moreover, in addition to the unique ID and physical address, the profile will also include: “(a) a URL of

each respective web page; (b) a time of visiting each respective web page; (c) a duration of visiting each respective web page; (d) an order in which each web page is visited; and (e) a geographic location of the first and second device at the time of visiting each respective web page.”

Id. at 37–38 (citing Ex. 1008, 6:19–25). Petitioner asserts that a POSITA “would have understood that, by storing information about the order, time, and duration the user visited each web page, the system necessarily is tracking the frequency with which the user accessed the URLs.” *Id.* at 38 (citing Ex. 1007 ¶¶ 177–180). Petitioner notes that Doughty further discloses that the profile will include demographic information like age, gender, race, religion, and marital status, as well as information about the model of the user’s devices. *Id.* (citing Ex. 1008, 8:35–56). Petitioner argues that “because Doughty discloses tracking the user across a plurality of devices, a POSITA would have understood that the profile contains information about the devices associated with the user, including the model number.” *Id.* (citing Ex. 1007 ¶¶ 177–180).

Patent Owner does not dispute that the combination discloses limitation 1[j]. *See* PO Resp. 23. Based on Petitioner’s arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

l) 1[k]: updating the profile information based on second anonymous data associated with a second browser session initialized on the user computing device or another user computing device associated with the physical address

Petitioner contends Doughty discloses and/or renders obvious this limitation. Pet. 38–39. Petitioner notes that Doughty discloses that the user’s profile “may be updated to add or delete further correlations between

data, devices, etc.” *Id.* at 38 (citing Ex. 1008, 16:28–37). Petitioner argues that a POSITA “would have recognized that this would occur in a second (i.e., separate) browsing session.” *Id.* at 38–39 (citing Ex. 1007 ¶ 182).

Petitioner submits that

Doughty recognizes that the same user may use multiple devices—each of which would have its own browsing session—and discloses updating the same profile based upon, for example, the location information from each of the devices, such as the user’s location being the same or the device types being consistent.

Id. at 39 (citing Ex. 1008 8:35–56, 15:18–48, 16:38–50; Ex. 1007 ¶ 182).

Petitioner asserts that “[t]his type of information is ‘anonymous data,’ as recognized by the ’947 [p]atent.” *Id.* (citing limitation 1[a] (claiming “location data” as “anonymous data”)).

Petitioner also contends that “it would have been obvious to update the user’s profile with anonymous information from a second browsing session because a POSITA would have understood that the more information collected about the user, the better the system can serve relevant ads.” *Id.* (citing Ex. 1007 ¶ 183).

Patent Owner does not dispute that the combination discloses limitation 1[k]. *See* PO Resp. 23. Based on Petitioner’s arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

m) 1[l]: identifying a second visit to the URL during the second browser session using the unique identifier stored in the local browser cache

Petitioner contends “Doughty alone discloses and/or renders obvious this limitation.” Pet. 39. Petitioner notes that Doughty discloses tracking

the URLs of “each respective web page,” including “an order in which each web page is visited.” *Id.* (citing Ex. 1008, 6:19–25). Petitioner argues that a POSITA “would have understood that, by tracking respective web pages and the order in which they are visited, the system can determine that the same URL visited in the first browsing session in 1[b] is also visited in a second browsing session in 1[k], which could be on a different device.” *Id.* at 39–40 (citing Ex. 1007 ¶ 184). Petitioner asserts that “Doughty discloses updating the user’s profile to identify ‘further correlations between data,’ and a POSITA would have understood that a second visit by the same user to the same URL in a subsequent browsing session would have been data tracked by the profile associated with that user, and thus, also by the unique identifier for that user.” *Id.* at 40 (citing Ex. 1008, 6:19–25; Ex. 1007 ¶ 185). Petitioner contends that a POSITA “would have understood that the unique identifier of the user stored in the local browser cache would have been the mechanism for how the two separate browsing sessions would be attributed to the same user, even across devices.” *Id.* (citing Ex. 1007 ¶ 186).

Patent Owner begins by noting its argument discussed above that neither Doughty nor Van Boucq teaches “sending . . . the unique identifier to the user device for storage in a local browser cache.” PO Resp. 53. Patent Owner argues “[w]ithout sending the unique identifier for storage in the local browser cache, Doughty’s system cannot then later rely on that unique identifier having been stored in the local browser cache to identify a second visit to the URL.” *Id.* Patent Owner reiterates its arguments raised above with respect to limitation 1[f] regarding the “unique identifier” and “local browser cache.” *See id.* at 53–54. Patent Owner argues “Petitioner’s

citation to Doughty concerns a back-end server linking saved universal profiles for two devices by comparing location information to the user behavior data,” not “identification or tracking of ‘using the unique identifier stored in the local browser cache’ as recited in limitation 1[l].” *Id.* at 54. Patent Owner contends that the “unique identifiers” identified by the Petition—profile identifiers and those associated with “hashed email addresses”—cannot satisfy limitation 1[l] because in Doughty, each user device would have a separate identifier. *Id.* at 54–55.

We find that Petitioner has shown that Doughty teaches this limitation. As discussed above, we find that Petitioner has shown that the combination teaches limitation 1[f], so Patent Owner’s arguments that Petitioner has not shown a “unique identifier” or storage in a “local browser cache” are not persuasive.

As for Patent Owner’s argument that the cited portion of Doughty (Ex. 1007, 6:19–25) does not disclose specifically the use of a “unique identifier stored in the local browser cache” to identify a second visit, this does not address the combination that Petitioner proposes. In Petitioner’s combination, Doughty has been modified to store the “unique identifier” in the local browser cache. *See* Pet. 31–33, 39–40. As Mr. Williams persuasively testifies, in light of Doughty’s teaching of tracking subsequent visits, a person of ordinary skill in the art “would have understood that a second visit to the same URL in a subsequent browsing session would have been data tracked by the profile associated with the user, including the unique identifier, as described in Doughty.” Ex. 1007 ¶ 185. Moreover, we agree with Mr. Williams’s reasoning that a POSITA “would have understood that the unique ID of the user, which is stored in the local

browser cache, was used to attribute the two separate browsing sessions to the same user,” and a POSITA “would have recognized that the unique ID would have been the same even across devices.” *Id.* ¶ 186. Accordingly, we find that Petitioner has shown by a preponderance of the evidence that Doughty would account for this limitation, particularly, in view of the teachings and modifications discussed above for the other limitations, such as limitations 1[e] and 1[f]. *See* Pet. 39–40; Ex. 1007 ¶¶ 184–187.

n) 1[m]: determining, using the updated profile information, a confidence rating for the user, the confidence rating indicating a quantifiable measure of the user's interest in a product

Petitioner contends Doughty discloses and/or renders obvious this limitation. “Doughty discloses determining a ‘relevancy score’ (i.e., ‘confidence rating’) based upon the user’s profile and the set of advertisements in the sponsor database.” Pet. 40 (citing Ex. 1008, 13:4–33) (emphasis omitted). Petitioner argues that “[t]his relevancy score is a quantifiable measure of the user’s interest in the product or service in the advertisement.” *Id.* at 40–41 (citing Ex. 1007 ¶ 188). Petitioner notes that “the stated purpose of the relevancy score is to ‘select[] a sponsored content based on a relevancy thereof with the universal profile.’” *Id.* at 41 (alteration in original) (citing Ex. 1008, 8:35–56).

Petitioner further argues that,

[a]lternatively, it would have been obvious to a POSITA that the relevancy score in Doughty, which is a quantifiable score (i.e., number), would be calculated to indicate the measure of the user’s interest in a product from the sponsor database (i.e., the “relevanc[e]” to the user) because that is the purpose of the “relevancy score.”

Id. (citing Ex. 1007 ¶ 189).

Patent Owner does not dispute that the combination discloses limitation 1[m]. *See* PO Resp. 23. Based on Petitioner’s arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

o) 1[n]: generating one or more notifications based on one or more of the updated profile information or the confidence rating

Petitioner contends Doughty discloses this limitation. Pet. 41. Petitioner argues that “Doughty discloses ‘selecting a sponsored content based on a relevancy thereof with the universal profile’ and generating a ‘push’ notification that will be sent to the user.” *Id.* (citing Ex. 1008, 8:35–40, 13:4–33; Ex. 1007 ¶ 190). Petitioner asserts that a POSITA “would have understood that ‘push’ refers to notifications that are ‘pushed’ or sent from a server to the device, e.g., Apple Push Notification Service (‘APNs’).” *Id.* (citing Ex. 1007 ¶ 190). Petitioner submits that Doughty discloses “transmitting the sponsored content to the second communication device for display thereon,” which a POSITA “would have again associated with a push notification.” *Id.* (citing Ex. 1008, 8:35–40; Ex. 1007 ¶ 190).

Patent Owner does not dispute that the combination discloses limitation 1[n]. *See* PO Resp. 23. Based on Petitioner’s arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

p) 1[o]: determining when to send the one or more notifications to the user

Petitioner contends that Doughty discloses this limitation. Pet. 42. Petitioner argues that “Doughty discloses determining when to send the push notification to the user based upon the relevancy score.” *Id.* (citing Ex.

1008, 12:61–65 (“[A]dvertisements are sent only when the relevancy score is above a predetermined value or threshold.”); Ex. 1007 ¶ 191).

Patent Owner does not dispute that the combination discloses limitation 1[o]. *See* PO Resp. 23. Based on Petitioner’s arguments and evidence, we find that Petitioner has shown by a preponderance of the evidence that the combination discloses this limitation.

q) Conclusion

Accordingly, for the forgoing reasons, Petitioner establishes by a preponderance of the evidence that claim 1 would have been obvious in view of Doughty and Van Boucq.

3. Claims 2–20

Patent Owner does not raise any other separate arguments regarding claims 2–20 other than those we have considered above with respect to claim 1. *See* PO Resp. 55–56 (explaining that the arguments for independent claim 1 also apply to independent claim 11, and the dependent claims inherent the deficiencies asserted with respect to the independent claims). We do not find Patent Owner’s arguments availing, as explained above. We have reviewed Petitioner’s contentions regarding claims 2–20 (Pet. 42–53), and find that Petitioner has shown by a preponderance of the evidence that Doughty and Van Boucq teach the limitations of those claims, and that there would have been a motivation to combine the references in the manner suggested with a reasonable expectation of success. Accordingly, we find that Petitioner has shown by a preponderance of the evidence that claims 2–20 would have been obvious over Doughty and Van Boucq, for the reasons stated in the Petition.

F. *Obviousness of Claims 1–20 Over Doughty, Van Boucq, and Maginnis*

Petitioner contends that claims 1–20 of the '947 patent would have been unpatentable under 35 U.S.C. § 103 as obvious over Doughty, Van Boucq, and Maginnis. Pet. 53–58. The only difference between this ground and the ground based only on Doughty and Van Boucq is that Petitioner relies on Maginnis to teach limitation 1[h]. *See id.* at 57–58. Petitioner further provides a detailed rationale for combining Maginnis with Doughty and Van Boucq. *See id.* at 55–57.

Patent Owner argues that this ground suffers from the same deficiencies as to the disclosures of Doughty and Van Boucq and motivation to combine as discussed above with respect to the first ground. PO Resp. 57. According to Patent Owner, “adding Maginnis to the mix does not cure the deficiencies of the teachings of Doughty and Van Boucq as explained in detail” for the first ground. *Id.* However, we do not find Patent Owner’s arguments availing, as explained above. We have reviewed Petitioner’s contentions regarding claims 1–20 (Pet. 53–58) based on this ground, and determine that Petitioner has shown by a preponderance of the evidence that the combination of Doughty, Van Boucq, and Maginnis teaches the limitations of claims 1–20, and that there would be a motivation to combine the references in the manner suggested with a reasonable expectation of success. Thus, Petitioner has shown by a preponderance of the evidence that claims 1–20 are unpatentable as obvious over Doughty, Van Boucq, and Maginnis, for the reasons stated in the Petition.

IV. CONCLUSION

After considering the evidence and arguments presented in the Petition, we determine that Petitioner has established by a preponderance of the evidence that the challenged claims of the '947 patent are unpatentable as obvious over the combinations of Doughty and Van Boucq and Doughty, Van Boucq, and Maginnis, notwithstanding Patent Owner's arguments.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 318(a), claims 1–20 of the '947 patent have been shown to be unpatentable; and

FURTHER ORDERED that any party seeking judicial review must comply with the notice and service requirements of 37 C.F.R. § 90.2.⁸

⁸ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not shown Unpatentable
1–20	103	Doughty, Van Boucq	1–20	
1–20	103	Doughty, Van Boucq, Maginnis	1–20	
Overall Outcome			1–20	

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