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.

No. IPR2025-00148
U.S. Patent No. 11,556,947

PATENT OWNER RESPONSE

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Exhibit List

Exhibit	Description
2001	Safari Privacy Overview – Learn how the Safari web browser protects your privacy (Nov. 2019) (available at https://www.apple.com/safari/docs/Safari_White_Paper_Nov_2019.pdf)
2002	The next step toward phasing out third-party cookies in Chrome (Dec. 14, 2023) (available at https://blog.google/products/chrome/privacy-sandbox-tracking-protection/)
2003	Third-party cookies restricted by default for 1% of Chrome users (Jan. 1, 2024) (available at https://debox/blog/cookie-countdown-2024jan)
2004	Thriving in the Post-Third-Party Cookie Era (Feb. 2, 2024) (available at https://www.launchlabs.ai/post/post-third-party-cookie-era)
2005	Tracking and Privacy Changes for Local Business: Capitalizing on the loss of third-party cookies (available at https://www.launchlabs.ai/ebook)
2006	fullthrottle.ai – Audience Generation (available at https://www.fullthrottle.ai/audience-generation/
2007	Launch Labs – Automotive (available at https://www.fullthrottle.ai/automotive/)
2008	Launch Labs – Geolocation Marketing Demystified (available at https://www.launchlabs.ai/post/geolocation-marketing-demystified)
2009	fullthrottle.ai – Home Page (available at https://www.fullthrottle.ai/)
2010	*Fullthrottle Technologies, LLC v. Rocket Media, LLC (d/b/a Launch Labs)*, No. 1:24-cv-00314 (M.D.N.C.), Dkt. Report as of March 12, 2025
2011	*Fullthrottle Technologies, LLC v. Rocket Media, LLC (d/b/a Launch Labs)*, No. 1:24-cv-00314 (M.D.N.C.), Dkt. 24 ("FAC")
2012	Declaration of Oded Gottesman, Sep. 9, 2025.
2013	Curriculum Vitae of Oded Gottesman
2014	Internet Engineering Task Force, RFC 6265
2015	Internet Engineering Task Force, RFC 9110

Exhibit	Description
2016	Internet Engineering Task Force, RFC 9111
2017	Gregory Fleischer, *Implementing Web Tracking*, *available at* https://media.blackhat.com/bh-us-12/Briefings/Fleischer/BH_US_12_Fleischer_Implementing_Web_Tracking_gfleischer_WP.pdf.
2018	Transcript of Deposition of David Hilliard Williams, Aug. 29, 2025
2019	James F. Kurose & Keith W. Ross, COMPUTER NETWORKING, A TOP-DOWN APPROACH (7th ed. 2013).
2020	Internet Engineering Task Force, RFC 7234, HTTP/1.1: Caching (June 2014).
2021	Onetrust, *The Ultimate Cookie Handbook for Privacy Professionals*, Nov. 2020.

I. Introduction

Fullthrottle Technologies, LLC ("Patent Owner" or "Fullthrottle") responds to Petitioner Rocket Media, LLC's petition for *inter partes review* ("Petition") of Claims 1-20 ("Challenged Claims") of U.S. Patent No 11,556,947 (Ex-1001, "'947 Patent"). The Board should find Claims 1-20 of the '947 Patent to be patentable because Petitioner's obviousness combinations fail to teach multiple claim limitations and Petitioner cannot fill in the gaps with conclusory expert opinion.

Fullthrottle is an award winning, data-powered artificial intelligence (AI) company that helps consumers connect with retailers and educational institutions (Ex-2011, ¶22; Ex-2009; *see also* Ex-2006; Ex-2007). Petitioner competes with Fullthrottle for software services sales under the trade name Ignite (Ex-2011, ¶72).

Fullthrottle developed a technology platform known as Shoppersuite (Ex-2011, ¶48). The '947 Patent covers certain technical features that support Fullthrottle's platform. Specifically, the '947 Patent discloses and claims a novel technique to solve the technical challenge presented by restrictions on web browser cookies. Cookies—small data files that websites save on a user's device—have come under increasing scrutiny and restriction in recent years due to privacy concerns. The '947 Patent provides a technique for facilitating interaction between users and websites that accommodates restrictions on cookies, addresses privacy concerns, and meets technical constraints. The '947 Patent claims a method of

interacting with a user computing device that includes at least 15 steps (claim 1), and a corresponding machine-readable storage device (claim 11). To address the problems in the art, the claims include limitations that describe particular conditions for assigning a "unique identifier" (*e.g.*, based on a lack of stored location data) and sending the assigned unique identifier based on certain conditions and to a particular location, so that the unique identifier is accessible in that location.

Petitioner asserts two grounds, both of which rely on obviousness. The first ground fails because neither of the asserted references, U.S. Patent No. 8,898,074 ("Doughty") (Ex-1008) and European Patent Publication No. 2,938,045 ("van Boucq") (Ex-1009), disclose, teach, or render obvious claim limitations 1[c], 1[d], 1[e], 1[f], and 1[l]. Neither of Petitioner's references address or solve the problem of cookie restrictions. Petition admits that Doughty – Petitioner's primary reference -- fails to disclose several claim limitations. Petitioner attempts to fill in Doughty's recognized holes with either van Boucq or expert testimony. Van Boucq, however, teaches a method that is entirely dependent on cookies and therefore does not solve the problem addressed by the '947 Patent. Moreover, Petitioner misunderstands the teachings of Doughty and van Boucq as neither disclose or render obvious several claim limitations. Petitioner's apparent attempt to present an alternate theory that the claims are obvious over Doughty alone is not properly before the Board because it is

not listed in the Petition. Regardless, this alternate Doughty-only ground lacks any merit as Petitioner is using conclusory, unsupported expert testimony to fill in Doughty's deficiencies.

Petitioner also asserts a three-way obviousness ground. However, that ground rises and falls with the Doughty and van Boucq arguments, so Petitioner's three-way obviousness ground fails for the same reasons as the Doughty-van Boucq obviousness grounds.

II. Background

A. Related Matters

Fullthrottle filed suit against Petitioner in April 2024. *Fullthrottle Technologies, LLC v. Rocket Media LLC*, No. 12:24-cv-00314 (M.D.N.C.). That case is pending. In that action, Fullthrottle asserts the '947 Patent and U.S. Patent Nos. 11,823,219 ("'219 Patent") and 12,051,083 ("'083 Patent") (Ex-2011, §¶1). The '947, '219, and '083 Patents are related by a claim of priority (Ex-1005, "Related U.S. Application Data"). Petitioner's motion to dismiss that case is pending.

Petitioner also petitioned for *inter partes* review of the '219 Patent, which the Board denied (IPR2025-00149 (Paper 7)). The Petitioner has not petitioned for a post grant review or *inter partes* review of the '083 Patent.

B. The Technical Background

Browser cookies are small data files that websites save on a device that can be used for a variety of purposes (Ex-2001, p. 4; Ex. 2005, p. 4; Ex-2012, ¶42). They are small "strings of data" (Ex-1048, p. 1) or text files comprising data bits "generated by a website" (Ex-2021, p. 5). Cookies have a variety of purposes including for example: (i) remembering users' custom preferences, (ii) helping users complete tasks without having to re-enter information;, (iii) assisting in user authentication; and (iv) user tracking for targeted advertising (Ex-2021, p. 5; Ex-2012, ¶42). Cookies were originally developed for e-commerce purposes, including to remember what items a user had added to their online shopping cart (Ex-2021, p. 6; Ex-2012, ¶44). Cookies are generally classified according to their purpose into one of four categories: strictly necessary cookies, performance cookies, functional cookies, and targeting cookies (advertising) (Ex-2021, p. 7; Ex-2012, ¶44).

Cookies may further be classified based on their source as either first-party cookies or third-party cookies (Ex-2001, p. 4; Ex. 2005, pp. 4-5; Ex-2012, ¶46). A "first-party cookie" is a computer cookie from a first-party website—the website that the user is visiting—that is saved to a user's device by a web page the user has visited (Ex-2001, p. 4; Ex. 2005, p. 4; Ex-2012, ¶47). A "third-party cookie" is saved to the device by a different site than the site the user is visiting. (Ex-2001, p. 4; *see also* Ex. 2005, p. 5; Ex-2012, ¶48-50).

A technical problem was recognized when governments and companies around the world began to restrict the use of cookies due to privacy concerns, including banning third-party cookies entirely (Ex-2011, ¶19; Ex-2003; Ex-2002; Ex-2012, ¶51-54). For example, Article 5(3) of the European ePrivacy Directive requires that any storing or retrieving (writing or reading) of information from an end user device be subject to consent unless it is technically necessary to enable the intended communication to take place (Ex-2021, p. 13). This rule requires consent for all types of cookies, including first-party and third-party cookies (Ex-2021, p. 14). The European General Data Protection Law ("GDPR") further regulates the use of cookies and includes additional requirements regarding consent to cookies (Ex-2021, pp. 20-21). By way of further example, the California Consumer Privacy Act ("CCPA") seeks to provide users with choice about the personal information that businesses collect, including through use of cookies, and how businesses use or sell that personal information (Ex-2021, pp. 42-43).

Moreover, browser developers have responded to the privacy concerns surrounding cookies by restricting them or allowing users to restrict them. For example, Apple's Safari browser "block[s] third-party cookies by default," and further limits tracking via first-party cookies (Ex-2001, pp. 4, 6-7; Ex-2012, ¶53).

Similarly, Google allows users to block third-party cookies and has considered blocking third party cookies by default (*see* Ex-2002; Ex-2003).

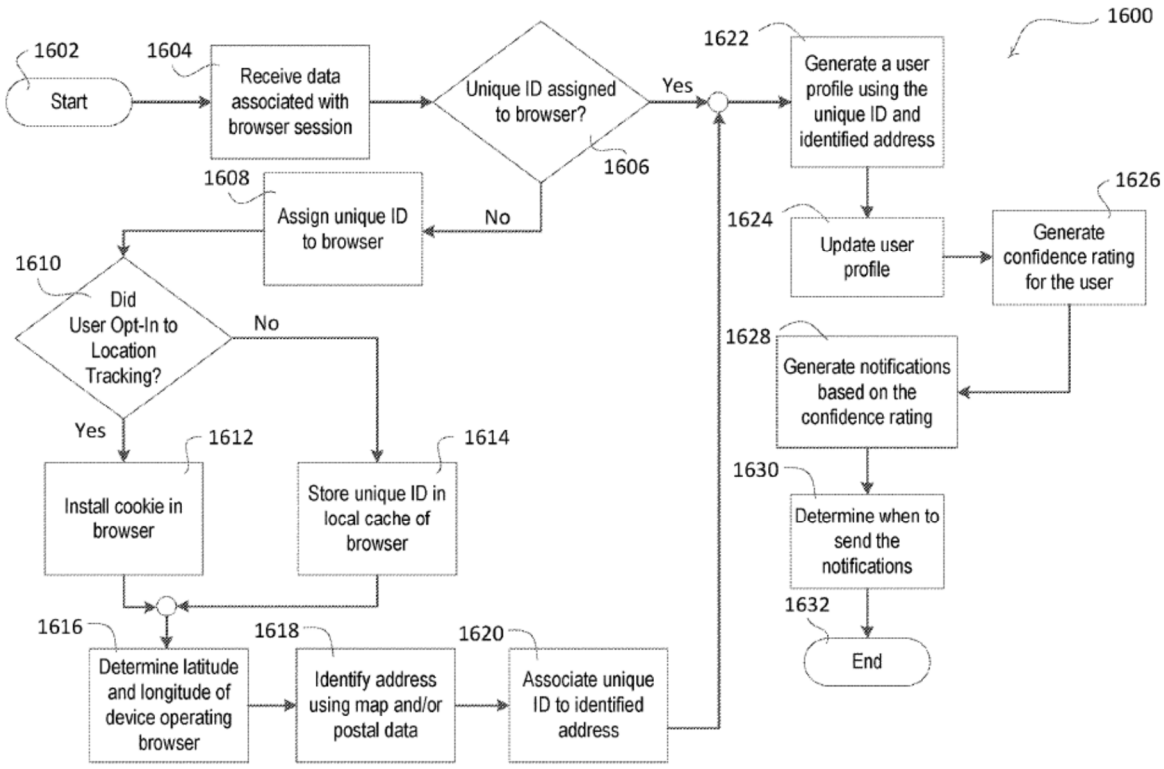
These cookie restrictions limit website owners' ability to identify a user each time the user visits the same web page, the number of times a user visits a web page, or to determine that it was the same user accessing the internet from different devices (*e.g.*, a laptop and a mobile phone) (Ex-2012, ¶54). The technical problem included how to develop new software that facilitates interaction between users and websites while still meeting certain technical constraints (*e.g.*, being persistent across multiple internet browsing sessions), and while meeting the privacy concerns and restrictions associated with cookies, all without slowing the user's browsing experience (Ex-2012, ¶54).

Petitioner itself has recognized the problem, stating that the elimination of third-party cookies is causing the "digital landscape" to "undergo[] a seismic shift" and this "change will impact everyone" (Ex-2004). In fact, Petitioner's entire business is directed to solving this technical problem (Ex-2004; Ex-2005). Petitioner itself recognizes many of these technical problems and alleges to have an "innovative approach" (Ex-2008).

C. The '947 Patent

The '947 Patent discloses and claims a novel technique to solve the challenge presented by restrictions on cookies. For example, '947 Patent Figure 16, reproduced below, describes an embodiment of the invention (Ex-2012, ¶73).

'947 Patent, Fig. 16



(Ex-1001 Fig. 16).

At 1604, a computing device receives browsing session data from a user such as "anonymous data" (*e.g.*, data that includes no personally identifiable information associated with the user)" (Ex-1001, 43:15-26). Examples of such anonymous data are time, date, webpage URL, browser type, language, IP address, and location (Ex-

1001, 43:26-29). Because the received data is anonymous, the '947 Patent describes multiple techniques for determining whether the user was previously identified with a unique identifier (Ex-1001, 9:47-59, 43:49-44:4; Ex-2012, ¶75).

"Unique Identifier/Lack of Stored Location Data Embodiment": In one example technique, the '947 Patent describes that 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" (Ex-1001, 9:47-52, 43:52-55; Ex-2012, ¶75). According to this technique, "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, 43:56-59; Ex-2012, ¶75). The '947 Patent claims focus on this Unique Identifier/Lack of Stored Location Data Embodiment. Claim 1, for example, recites "determining that the user has not been assigned a unique identifier based on the lack of stored location data for the user computing device" (Ex-1001, 47:54-56).

"Unique Identifier/Tracker Embodiment": The '947 Patent discloses another embodiment for identifying the anonymous user. The '947 Patent also discloses that "[a]dditionally or alternatively, the computing device may determine whether there is a unique identifier" that is "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, 43:59-63; Ex-2012, ¶75). "The tracker may include the unique identifier associated with the user" (Ex-1001, 9:59-61, 43:63-64; Ex-2012, ¶75). "The tracker may have been installed in the user's browser application (e.g., by the computing device) during a previous visit to the URL via the user's browser application, for example, if the user opted-in to location tracking, as described herein" (Ex-1001, 9:61-65 and 43:64-44:1; Ex-2012, ¶75). In this Unique Identifier/Tracker Embodiment, the anonymous user is identified not with saved location data, but rather, with a previously assigned location tracker associated with a unique identifier.

Steps Applicable to the Unique Identifier/Lack of Stored Location Data Embodiment: At 1608, if the computing device determines that no unique identifier has been assigned based on a lack of stored location data, the computing device generates a unique identifier for that user (Ex-1001, 44:5-8; Ex-2012, ¶76). When the computing device determines (1606) that a unique ID was previously assigned to the browser, the user is no longer anonymous and the system updates the user profile (1622-1632) (Ex-1001, 44:1-4; Ex-2012, ¶76).

In order to track the user and update a user profile, the computing device determines at 1610 whether the user opted-in to location tracking (Ex-1001, 44:17-18; Ex-2012, ¶77). If the user opted-in to location tracking, there is a "tracker (*e.g.*,

cookie)" in the browser application" (Ex-1001, 44:25-27; Fig. 16, 1612; Ex-2012, ¶77).

If there is no "tracker (*e.g.*, cookie)" in the browser application, the computing device stores the generated unique identifier in the user's local browser cache at 1614 (Ex-1001, 44:59-62; Ex-2012, ¶78). Because the assigned unique identifier is stored in the local browser cache, the computing device can recognize return visits by the user when there is no "tracker (*e.g.*, cookie)" and when using the same browsing application (Ex-1001, 44:59-61, 44:65-67; Ex-2012, ¶78). The unique ID may enable persistence across browser sessions and may be recognizable across browsing sessions, but not browser applications (Ex-1001, 45:12-20; Ex-2012, ¶78). Further, the unique ID "may remain in the local browser cache, for example, until the local browser cache is explicitly cleared" (Ex-1001, 45:14-16; Ex-2012, ¶78).

At 1616, the computing device determines the user's latitude and longitude from the browsing session data (Ex-1001, 45:21-25; Ex-2012, ¶79). At 1618, the computing device determines a physical address (*e.g.*, postal address) for the browsing session by correlating the browsing session location data with information (*e.g.*, map information) using an application programming interface ("API") (Ex-1001, 45:31-41; Ex-2012, ¶79). At 1620, the computing device associates the unique identifier with the physical address (Ex-1001, 45:61-65; Ex-2012, ¶79). Having

assigned a unique identifier to the anonymous user, determined how to track the anonymous user, and determined the location of the anonymous user, the system generates a profile for the user (1622-1632) (Ex-1001, 46:9-47:29; Ex-2012, ¶79). In summary, the '947 Patent discloses a new technique that uses unique identifiers, the lack of saved location data, and tracking techniques to solve the problem of increasing limits on browser cookies.

D. The Challenged Claims

Petitioner challenges claims 1-20 on two obviousness grounds. Petitioner argues that claims 1-20 are obvious over (i) Doughty in view of van Boucq (Ground I); and (ii) Doughty in view of van Boucq and U.S. Patent No. 10,311,465 ("Maginnis") (Ex-1010) (Ground II). Patent Owner uses Petitioner's claim identifiers (*e.g.*, 1[a], 1[b], etc.).

Claim 11 corresponds to claim 1. Claims 2-10 depend directly or indirectly on claim 1. Claims 12-20 depend directly or indirectly on claim 11.

The '947 Patent claims are focused on the Unique Identifier/Lack of Stored Location Data Embodiment as they claim "determining that the user has not been assigned a unique identifier based on a lack of stored location data for the user computing device (limitation 1[c]) (Ex-1001, 47:54-56). The claims carry this same "unique identifier" through the claims, as the "assigning," "sending," "associating,"

"generating" and "identifying" clauses each recite the same "unique identifier" (limitations 1[d], 1[f], 1[h], 1[l], 1[m]) (Ex-1001, 47:57-48:26).

E. Overview of the Applied Art

Doughty and van Boucq are discussed below. As the Petition fails with or without Maginnis, Fullthrottle does not address Maginnis.

1. Doughty

Doughty identifies that an internet user of a stationary device can be sent advertising on the stationary device (Ex-1008, 5:33-58, 9:32-63). According to Doughty, there was "no efficient way to optimally target the same user across all the devices he may use" including for example, cellular phones, smart phones, televisions, and gaming devices (Ex-1008, 5:35-53, 9:64-10:11). Petitioner relies on at least two embodiments of Doughty: a "Profile-ID Embodiment" and a matchkey provider embodiment ("MKP Embodiment") (Ex-2012, ¶94).

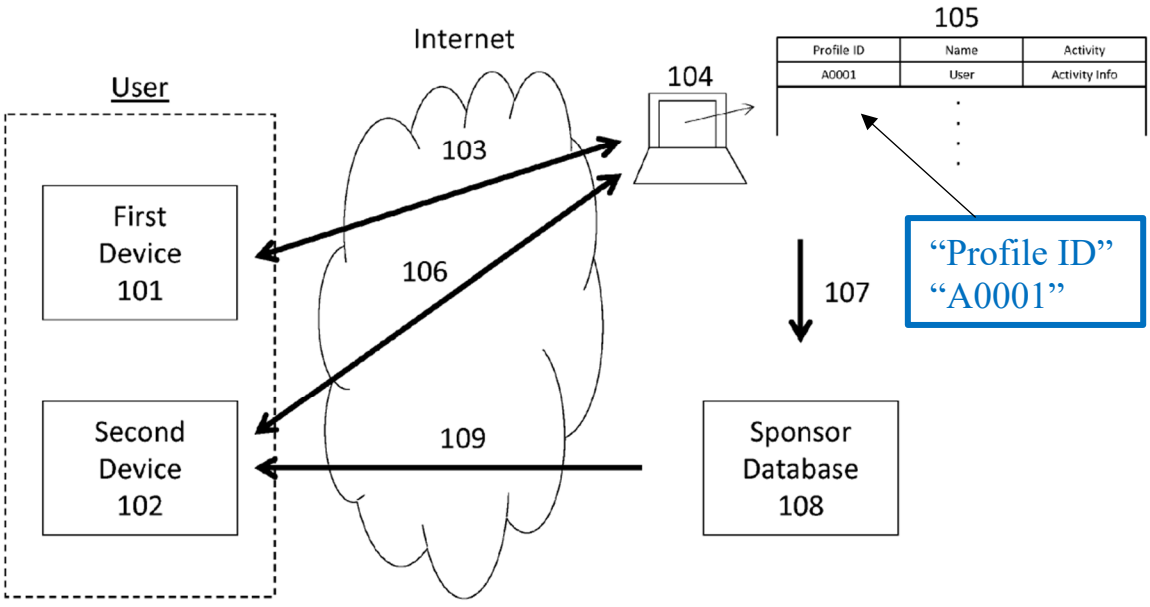
Profile-ID Embodiment: Doughty's Profile-ID Embodiment focuses on assigning an identifier to each device, determining whether the devices are associated with the same user based on user activity, and linking the assigned device identifiers, so that an advertiser can send advertisements to both devices based on knowing that both devices belong to the same user (Ex-1008, 10:34-67; Ex-2012, ¶95).

As shown with reference to Figures 1 and 2, Doughty's "server 104 communicates with first device 101 to receive information relating to the user's

activity on first device 101" (Ex-1008, 10:34-36, 12:10-13; Fig. 2, 201; Ex-2012, ¶96). Upon receiving the "user's activity information, server 104 assigns a unique identifier" (202) and "stores the assigned unique identifier, user information, and activity information in table 105" at the server (Ex-1008, 10:45-50; 12:13-15, Fig. 2, 202). The "user's activity may be [sic] behavioral pattern, viewing habits, usage information, duration on each application, geographic location, proximity to other locations, etc." (Ex-1008, 10:36-39). Doughty shows the assignment of Doughty's unique identifier as "Profile ID" "A0001" at server 104 in table 105 (Figure 1 below) (Ex-1008, Fig. 1; Ex-2012, ¶96).

Doughty Fig. 1 (Ex-1008) (Annotated)

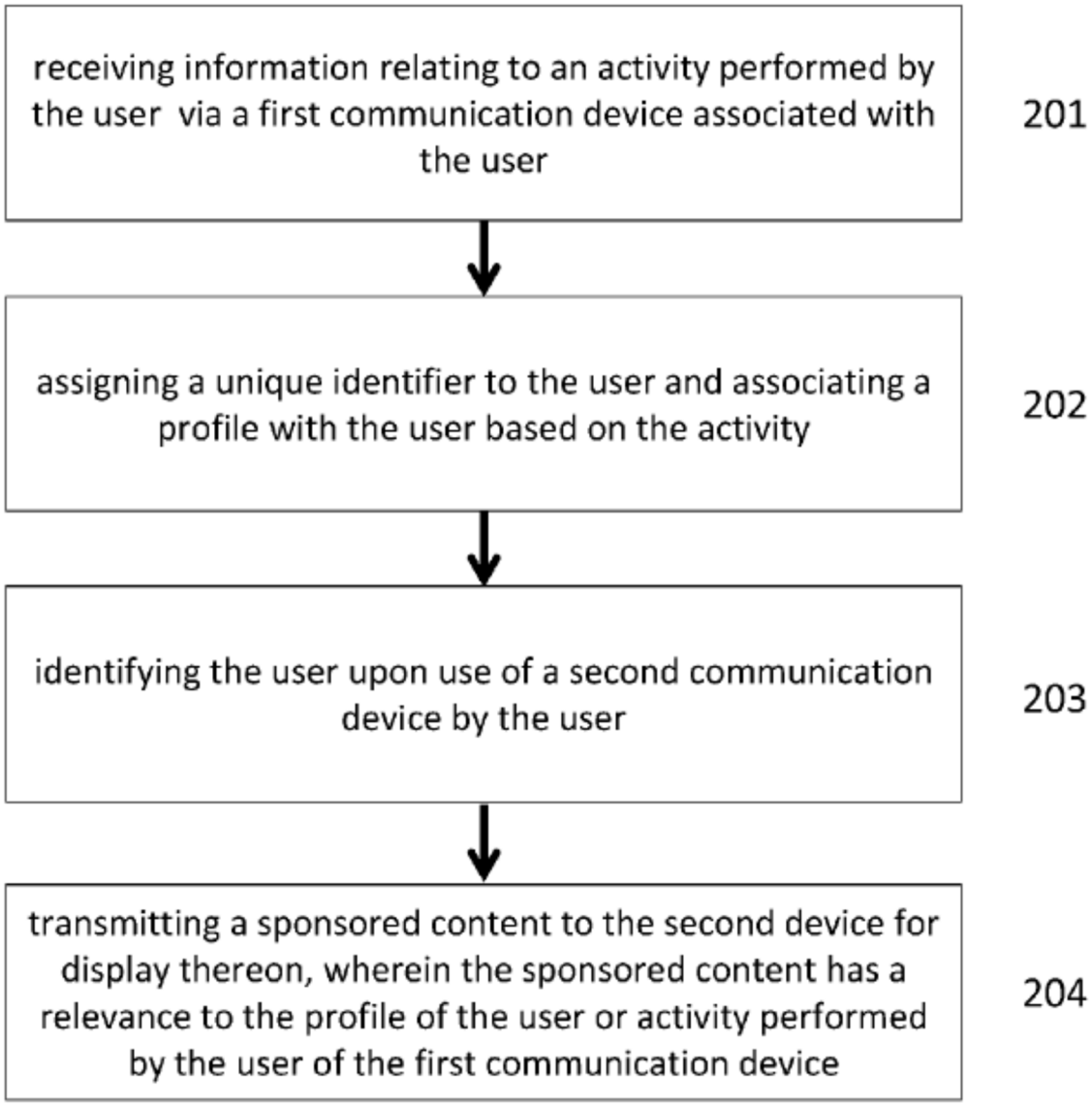
FIG. 1



At 203, Doughty also teaches that server 104 may "identify the second device 102" as being used by the same user (Ex-1008, 10:54-56, 12:15-16, Fig. 2; Ex-2012, ¶97). Sponsored content is transmitted (204) to the second user device that is relevant to the profile of the first user device (Ex-1008, 12:16-20).

Doughty Fig. 2 (Ex-1008)

FIG. 2



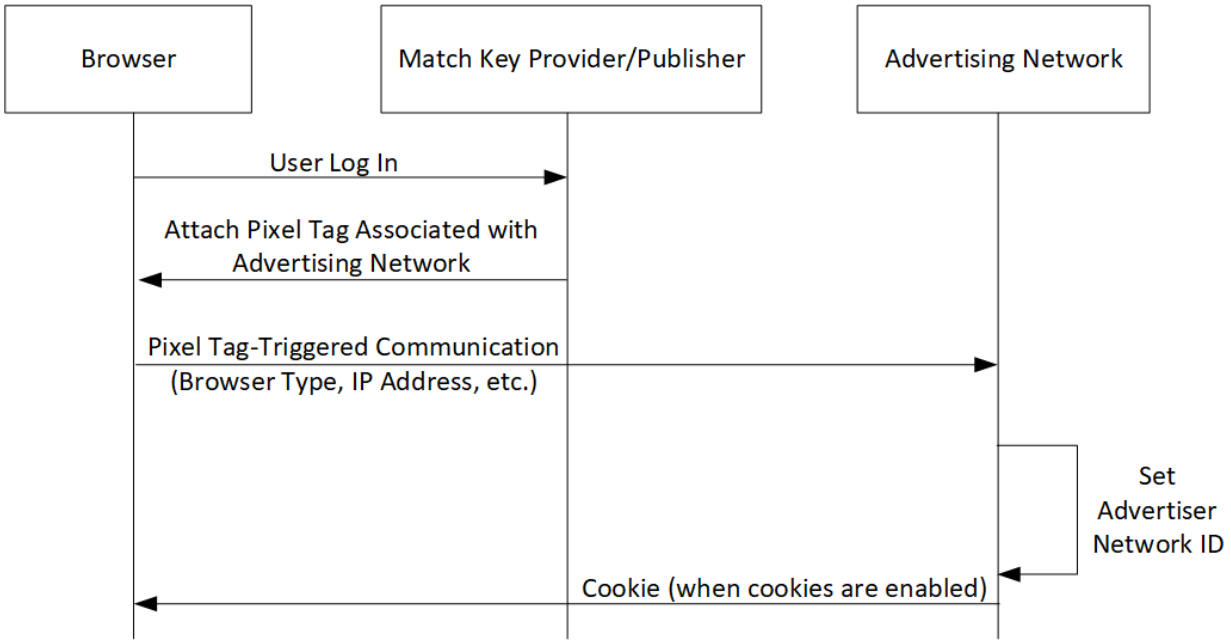
In Figures 3-8, Doughty discloses different embodiments within the Profile-ID Embodiment for determining that two devices have been used by the same user (*e.g.*, using profiles, user managed assets, & use patterns) and creating a "universal profile" to correlate those two devices, so that advertisers can use data from the two devices to select advertisements to send to the user (Ex-2012, ¶98; *see generally* Ex-1008, 12:35-15:17, Figs. 3-8). Doughty, however, does not disclose sending Doughty's server Profile ID to the user devices, as Doughty's Profile ID is used to correlate devices and for sending advertisements (Ex-1008, Figs 3-8). Nor does Doughty discuss determining whether a unique identifier was previously assigned based on "a lack of stored location data" (Ex-2012, ¶98). Doughty also does not discuss cookies in reference to the Profile-ID Embodiment (Ex-2012, ¶98).

MKP Embodiment: Doughty discloses "another embodiment" (i.e., "MKP Embodiment") in which "an advertising network" identifies "match keys for the same user across wired web, mobile web, and mobile application traffic," to enable the "advertising network to collapse a profile for a user and create [sic] universal profile" (Ex-1008, 16:38-42; Ex-2012, ¶99). Doughty discloses a two-step process. First, the advertising network establishes communication with a user device based on a matchkey provider's communication with a user device. Second, the advertising network creates a user device profile with a matchkey provided by the matchkey

provider, user device information transmitted by the user device to the advertising network, and information the advertising network can obtain from a data supplier using the matchkey.

AD Network Establishes Communication: Doughty discloses that an advertising network can use pixel tags to establish communication with a user device that is in communication with a MKP (Ex-2012, ¶100). After a user logs into a publisher or application (*e.g.*, MKP), Doughty discloses that the publisher (MKP) sends a pixel tag to the user that enables the advertising network to serve a cookie to the user's browser (Ex-1008, 16:63-65; Ex-2012, ¶100). Doughty describes the pixel tag as a "usually a transparent graphic image…placed on a webpage or in an email" (Ex-1008, 17:11-14). HTML code for a pixel tag can point to the advertising network's site (Ex-1008, 17:16-20; Ex-2012, ¶100). When the user's browser loads the HTML code from the publisher (MKP) that includes a pixel tag pointing to the advertising network, the HTML code associated with the pixel tag directs the user device to pass information such as the type of browser, user IP address, and previously set cookie values to the advertising network (Ex-1008, 17:16-20; Ex-2012, ¶100). As Doughty provides no figure for the MKP Embodiment, Dr. Gottesman provides a diagram to explain Doughty's disclosure.

Doughty's MKP Embodiment: Establishing Advertising Network User Device Communications

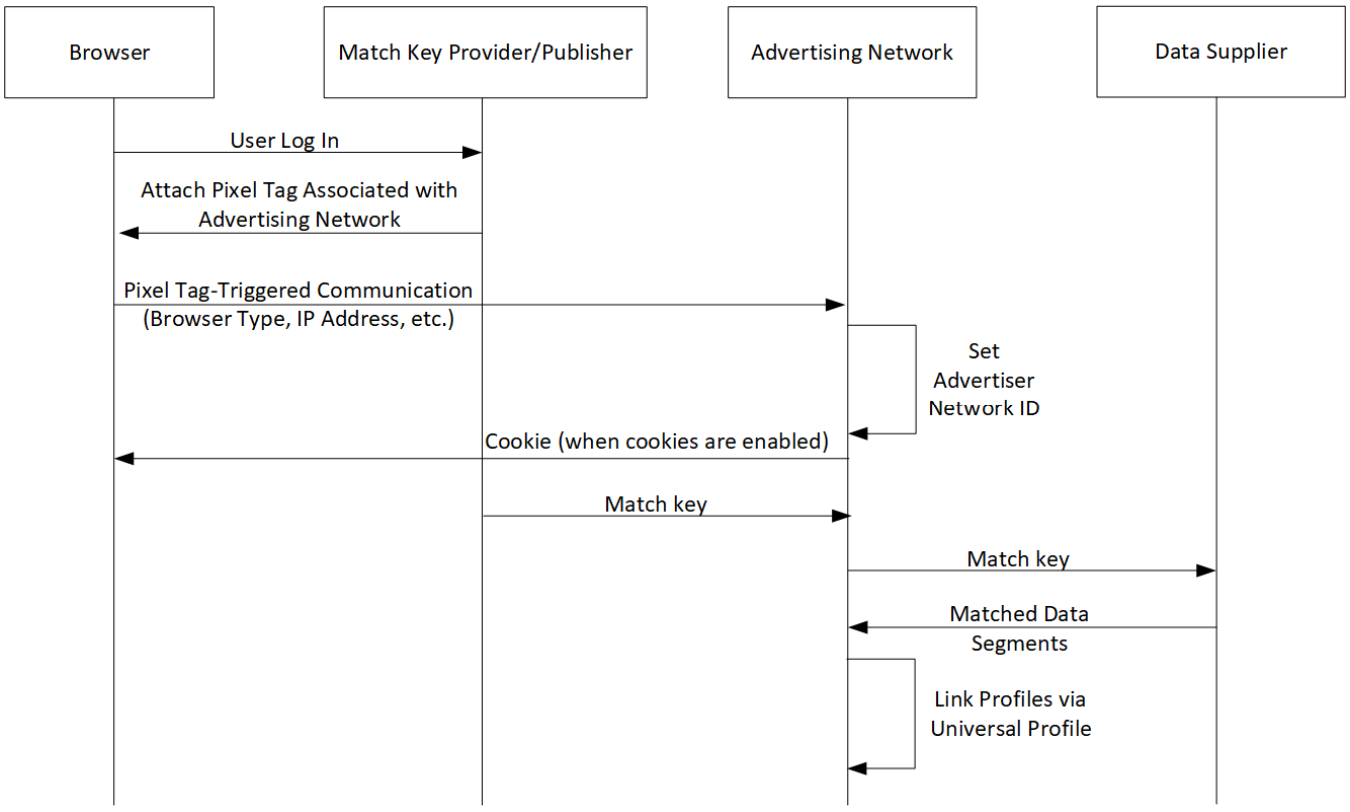


(Ex-2012, ¶100).

Profile Creation: Once the advertising network has received information from the user device, the advertising network builds a user device profile as follows. The MKP provides the advertising network with a matchkey that is associated with the information provided by the user browser to the advertising network (*e.g.*, IP address) (Ex-2012, ¶101). Examples of information sent by the MKP to the advertising network include: 1) an obfuscated or encrypted personal identifiable information (oPII), such as a name, address, email, and zip code; 2) a consistent cross-channel user identifier, such as a login ID or internal user ID; or 3) an MKP ID, which is a user ID that is pre-processed to match with the data sources (Ex-1008, 16:65-

17:3; Ex-2012, ¶101). The advertising network sends the received matchkey to a data supplier (Ex-1008, 17:8-10). In response to receiving the matchkey, the data supplier sends the advertising network matching segments that are associated with the user (*e.g.*, "student," "male." "25 years old," and "luxury shopper.") (Ex-1008, 17:8-10; Ex-2012, ¶101). The advertising network uses the information received from the browser and the data supplier information to build a profile for the user device (*see* Ex-1008, 17:34-41). The advertising network can determine that two user devices are associated with the same user if the user profile devices are correlated (*see* Ex-1008, 16:38-50; Ex-2012, ¶101).

Doughty's MKP Embodiment: Profile Creation



Cookies Off: Doughty recognizes that "[t]urning off browser cookies will prevent pixel tags from tracking the user's activity," in which case a pixel tag can only account for an anonymous visit (*e.g.*, a profile cannot be created) (Ex-1008, 17:24-27). Doughty teaches that if the user is anonymous, "the advertising network will not be able to recognize him by the previously assigned ID" (Ex-1008, 17:46-49). This is because the ad network will not be able to set a cookie in the browser, and the browser will not return the cookie to the ad network and user information to the advertising network (Ex-2012, ¶100, 102). With cookies off, the advertising network cannot build the user device profile, because the advertising network is not receiving user device information (Ex-2012, ¶102). Doughty's solution to an advertising network seeing an anonymous user, due to cookies being turned off, is that the "advertising network may uniquely identify a user by creating a hashed (*e.g.*, anonymous) email address" (Ex-1008, 17:28-30; Ex-2012, ¶103).

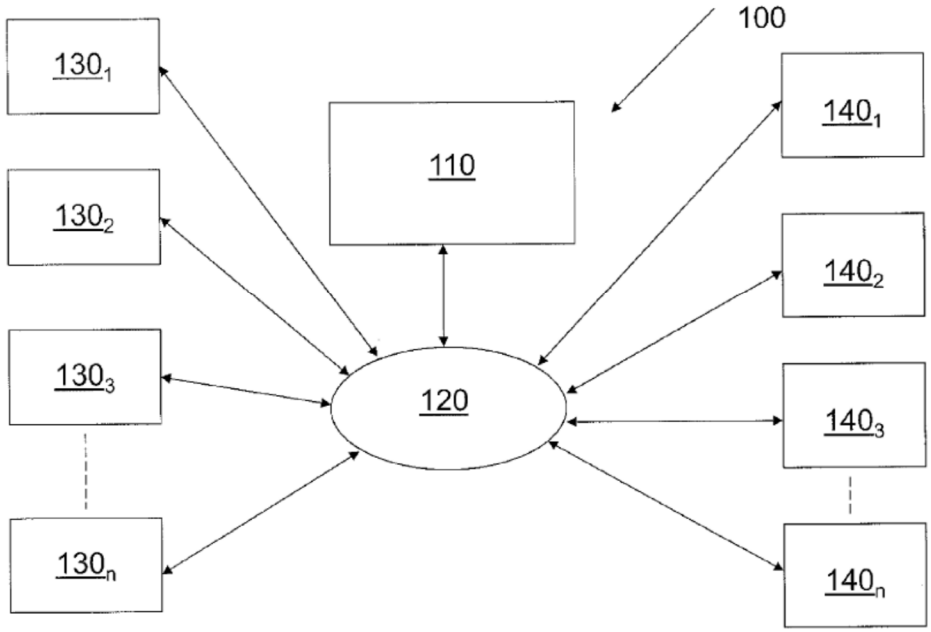
2. Van Boucq

Van Boucq proposes a cookie-based solution to the alleged problems with using IP addresses to locate internet users for targeted advertising (Ex-2012, ¶105). Using an IP address is problematic, according to van Boucq, because IP addresses may be temporarily assigned, are imprecise in identifying exact location, may not be associated with the device's geographic location, and can change (Ex-1009, ¶¶[0005], [0010]). Also, many users may refuse to be "geolocated by their

browsers," their browser's geolocation services, and to specify their location (Ex-1009, ¶[0009]). Thus, a "purpose of the present invention" of van Boucq was "to provide 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 (Ex-1009, ¶[0013]; *see* Ex-2012, ¶105).

Van Boucq discloses a "communication system 100" (Fig. 1) comprising "an internet service provider 100" that is the interface with the internet 120 for internet users $140_{1\text{-}n}$, and services providers/advertisers $130_{1\text{-}n}$. (Ex-1009, ¶[0056]). The internet providers $130_{1\text{-}n}$ preferably provide the internet users local information relating to a specific geographic area defined by geographic coordinates "longitude and latitude" predetermined by each Internet user $140_{1\text{-}n}$ (Ex-1009, ¶[0056]; *see* Ex-2012, ¶106).

Van Boucq Fig. 1



(Ex-1009 Fig. 1).

With reference to Figure 2, van Boucq describes a cookie check and a pop up for determining whether to send a location to a user device (Ex-2012, ¶107). Van Boucq's cookie check determines whether the Internet user already has a connection cookie, which makes it possible to determine whether the geolocation of said Internet user has already been stored in a browsing device (Ex-1009, ¶¶[0060], [0063]). If Van Boucq's cookie check is positive and "the user's geolocation has already been stored in the communication system," the communication system will display an advertisement associated with the user's saved location (Ex-1009, ¶[0060]). However, if the cookie check negative, van Boucq teaches that "the Web browser will

send a pop-up (message) 270 asking the user if he/she wishes to be geolocated" (Ex-1009, ¶¶[0063], [0068]). Regardless of whether the user answers the pop-up yes or no (Fig. 2, 270, 290), van Boucq creates a connection cookie (Ex-1009, ¶¶[0063], [0068]; *see* Ex-2012, ¶107). Van Boucq uses this determined location for selecting advertisements for the user (Ex-1009, ¶[0069]).

van Boucq Fig. 2 (Annotated)

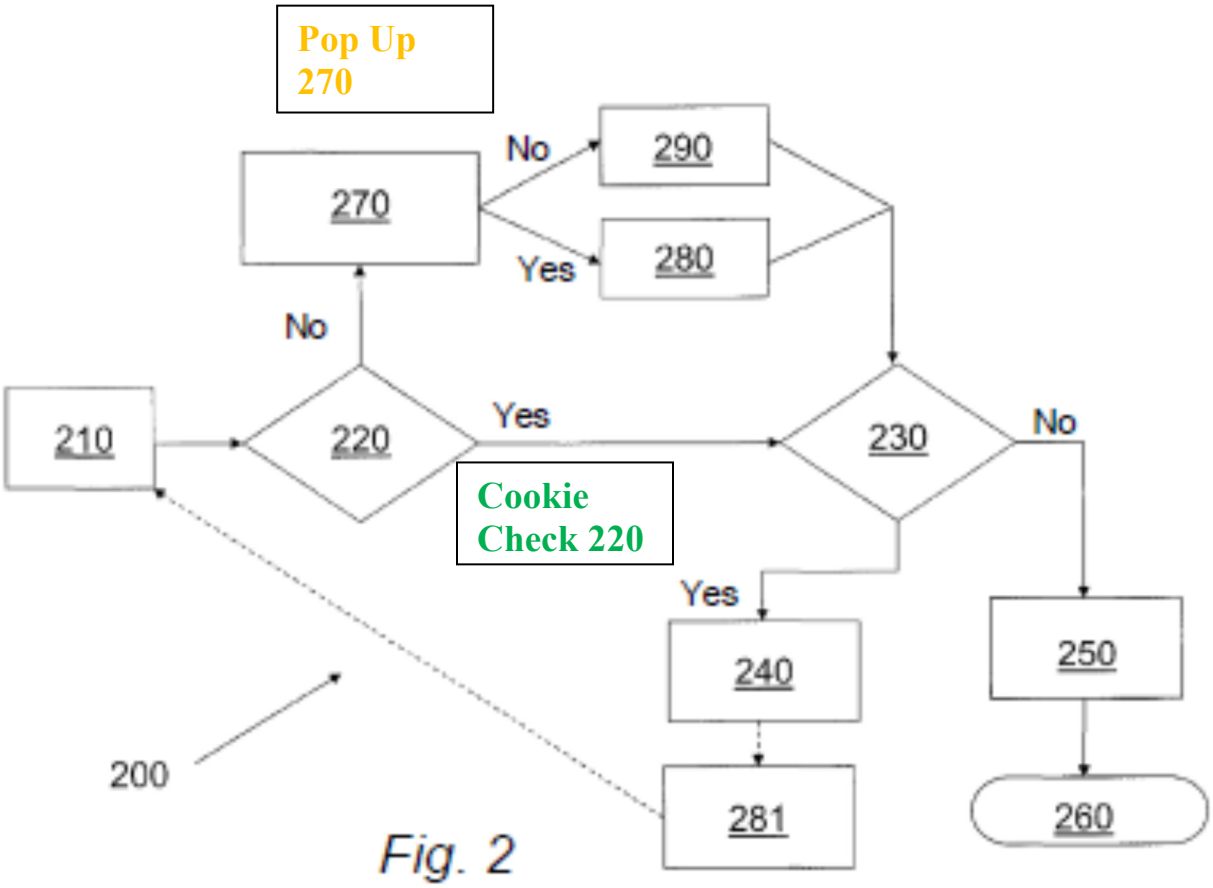


Fig. 2

While van Boucq determines a user location and saving that location, van Boucq does not disclose tracking the user and routinely updating the user location

(Ex-2012, ¶108). Van Boucq's saved location is static. Van Boucq's static location comports with van Boucq's desire to send advertisements based on the user's determined location (*e.g.*, residence), as van Boucq does not teach updating that saved location if, for example, the user drives 30 miles (Ex-2012, ¶108).

III. Person of Ordinary Skill in the Art ("POSITA")

For purposes of this IPR, Fullthrottle does not contest Petitioner's POSITA definition.

IV. Claim Construction

In its Decision on Institution ("DI"), the Board found that "no express claim construction is necessary for any claim terms." (DI, p. 11). Petitioner asserts that the claims "should be given their plain and ordinary meaning" and asserts that the Patent Owner's construction are the plain and ordinary meaning (Petition, pp. 14-16). Patent Owner agrees that no express constructions are necessary to resolve this IPR and applies plain and ordinary meaning, as identified by Petitioner.

V. Ground I: Petitioner's Two-Way Obviousness Combination Fails

Petitioner has failed to show any of the Challenged Claims are obvious over its Ground 1 two-way obviousness combination because neither of the cited references disclose or render obvious limitations 1[c], 1[d], 1[e], 1[f] and 1[l].

A. Claim 1

Petitioner's Ground 1 asserts two obviousness theories over Doughty and van Boucq. Petitioner admits that Doughty – the primary reference -- does not disclose all of claim 1's limitations. Petitioner attempts to fill in Doughty's gaps with either van Boucq or expert testimony. Neither theory has merit.

1. Limitations 1[c] & 1[d] are Not Taught by or Obvious Over Doughty and/or van Boucq

Claim limitation 1[c] is "determining that the user has not been assigned a unique identifier based on a lack of stored location data for the user computing device," and limitation 1[d] is "assigning the unique identifier to the user" (Ex-1008, 47:54-57). Thus, the claim does not merely assign any unique identifier. 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. These 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 (Ex-2012, ¶112; *see generally* Ex-2012, ¶¶110-131).

(a) Doughty Does not Disclose Limitations 1[c] & 1[d]

Doughty does not disclose limitations 1[c] and 1[d]. In Doughty's Profile ID Embodiment, Doughty explains that server 104 assigns a "Profile ID" "A0001" "[u]pon receiving the user's activity information" or identifying a second device as associated with the first device (*see supra* §II.A.1, Ex-1008, Figs. 1-2; Ex-2012, ¶¶113-115). In Doughty's MKP Embodiment, the advertising network assigns an advertising network ID based on receiving communications from a user device (*see supra* §II.A.1; Ex-1008, 16:39-17:24; Ex-2012, ¶¶116). Thus, Doughty does not disclose limitation 1[c] as Doughty does not disclose "determining that the user has not been assigned a unique identifier based on a lack of stored location data for the user computing device." Petitioner and Mr. Williams agree that Doughty does not disclose limitation 1[c] and assert only obviousness (Petition p. 24; Ex-1007, ¶146).

Regarding limitation 1[d], however, Petitioner and Mr. Williams diverge. Petitioner states "Doughty discloses this limitation," citing to Doughty's disclosure that "[u]pon receiving the user's activity information, server 104 assigns a unique identifier" (*i.e.*, Profile ID Embodiment) and creating of a unique identifier by creating a hashed email address (*i.e.*, MKP Embodiment) (Petition p. 27, citing Ex-1008, 10:45-47; 17:28-32). In contrast, Mr. Williams opines only that "Doughty and van Boucq render this limitation obvious," not that Doughty teaches or suggests limitation 1[d] (Ex-1007, ¶156).

Petitioner is incorrect. Doughty's assigning a unique identifier upon receiving user activity information and creating a hashed email address are not "assigning the unique identifier to the user" as claimed because the claim does not merely claim assigning any unique identifier. Rather, the antecedent for "the unique identifier" in limitation 1[d] requires that the assigned unique identifier was determined not to be assigned "based on a lack of stored location data for the user computing device" (Ex-1001, 47:54-57). Doughty's Profile ID and hashed email are unrelated to any determination based on a lack of stored location data for the user computing device. To the contrary, Doughty's alleged "unique identifiers" are based upon receipt of user activity information or creating a hashed email address. Thus, Doughty does not disclose limitation 1[c] or 1[d] (Ex-2012, ¶117).

(b) Doughty Alone does not Render Limitations 1[c] & 1[d] Obvious

As Doughty fails to disclose limitation 1[c] and [d], Mr. Williams asserts two alternative obviousness theories (Ex-1007, ¶¶146-151.) Neither has merit.

Mr. Williams first asserts that it "would have been obvious to a POSA that, to check if the user has been assigned a unique identifier, the system would check the user's computing device for a cookie or other tracking mechanism" and "[i]f the user already had a unique identifier, there would already be a cookie or other tracking mechanism on the user's computer in the local browser cache" (Ex-1007, ¶148; *see*

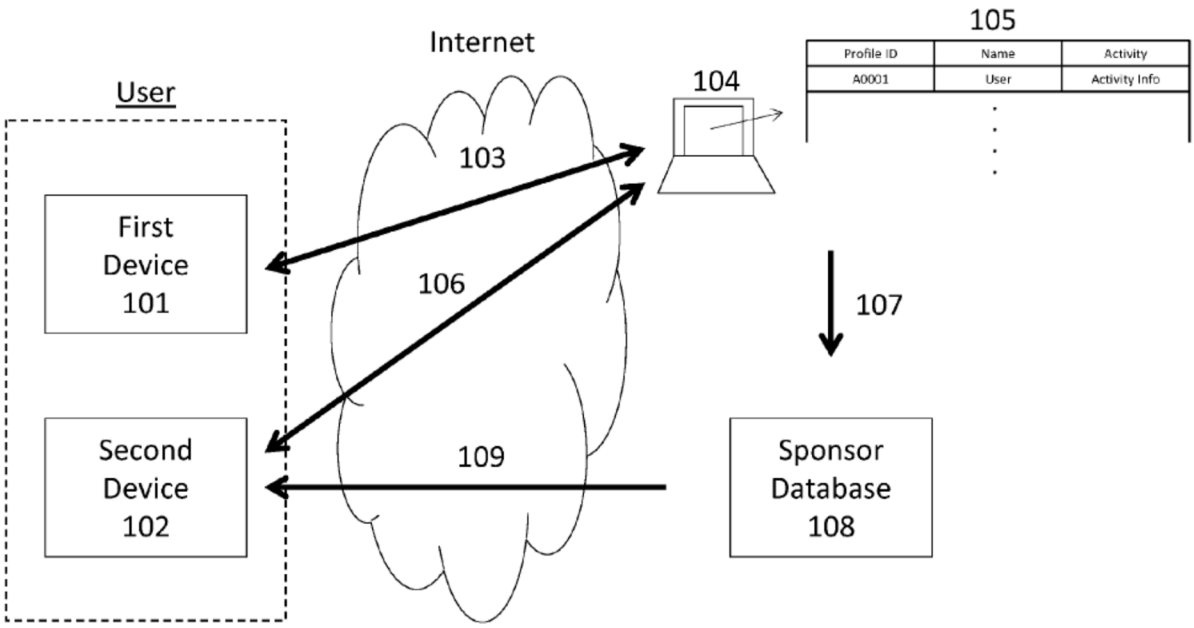
also ¶¶148-149). Mr. Williams' "cookie check" obviousness argument is problematic for several reasons.

Petitioner's and Mr. Williams' reliance on a "cookie check" for allegedly teaching limitation 1[c] is incorrect because it is directed towards the unclaimed Unique Identifier/Tracker Embodiment of the '947 Patent, not the claimed Unique Identifier/Lack of Stored Location Data Embodiment. Mr. Wiliams' 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, 39:30-34, 43:59-63). In contrast, in the '947 Patent'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). Thus, Mr. Williams fails to show obviousness by rendering opinions about unclaimed embodiments (Ex-2012, ¶120).

Further, Mr. Williams' and Petitioner's "cookie check" obviousness theories make no sense in view of Doughty. Doughty teaches assigning a unique identifier in the form of a "Profile ID" (e.g., A001) based on receipt of user activity information

that is saved in "table 105" at the remote server (as shown in Doughty's Fig. 1, reproduced below; *see also* Ex-1008, Figs. 3, 5, 7, 9). There 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. Accordingly, a POSITA would not be motivated to look for Doughty's Profile ID in a place where Doughty's identifier is not saved, e.g., a cookie (Ex-2012, ¶121).

Doughty Fig. 1 (Ex-1008)



Petitioner and Mr. Williams also assert that "a POSA would have been motivated to check for a previously determined location because one of the purposes of the system in Doughty is to consolidate all information about the user in a universal profile. It is my opinion that a POSA would have understood the system must

determine if the user already has an associated profile and unique ID and this could be done by checking for a previously determined location" (Ex-1007, ¶151; Petition 270). Mr. Williams does not elaborate on this sentence, so it is unclear what Mr. Williams is referring to in this sentence. But to the extent that Mr. Williams is opining that it would have been obvious to check Doughty's server 104 Profile ID table 105 for a lack of stored location data and conclude from the lack of stored location data in table 105 that a unique identifier has not been assigned, Mr. Williams is incorrect. Doughty's Profile ID table 105 is a compilation of Profile ID's that are assigned based on user activity information, which may be a "behavioral pattern, viewing habits, usage information, duration on each application, geographic location information, proximity to other locations" (Ex-1008, 10:36-39). Because 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. If 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. Thus, a POSITA would not have been motivated to

modify Doughty to perform an analysis that would yield an incorrect conclusion (Ex-2012, ¶122).

Mr. Williams makes a passing reference to pixel tags and other unidentified tracking mechanisms in his opinion regarding limitation 1[c] (Ex-1007, ¶¶148-149). To the extent that Mr. Williams is opining that Doughty's pixel tag discussion renders limitation 1[c] obvious, he is incorrect. Mr. Williams does not identify any unique identifier disclosed by Doughty that is associated with a pixel tag. Further, Doughty's MKP assigns a pixel tag to connect a user with an advertising network, not based on the lack of stored location data. To the extent that Mr. Williams is opining based on undisclosed tracking mechanisms, his opinion fails to show obviousness, as these mechanisms are not even identified. A patent claim is not obvious over an alleged unidentified mechanism.

(c) Doughty and van Boucq do not Render Limitations 1[c] and 1[d] Obvious

Relying on Mr. Williams, Petitioner alternatively asserts that limitation 1[c] is obvious over van Boucq's cookie check/pop-up procedures (Petition 25-26; Ex-1007, ¶¶152-53), while still relying on Doughty for teaching limitation 1[d]. Mr. Williams supports his opinion that limitation 1[c] is obviousness over van Boucq with one sentence, asserting that "van Boucq discloses that the system can determine whether the user has a profile and unique ID by checking if the internet user already has a

geolocation cookie on the computing device" (Ex-1007, ¶152, citing Ex-1009, ¶[0060]). Petitioner's one-sentence argument lacks merit, however, because neither van Boucq's cookie check or pop-up procedures disclose or render obvious limitation 1[c] (Ex-2012, ¶124).

van Boucq's Cookie Check: As van Boucq's cookie check is akin to the unclaimed Unique Identifier/Tracker Embodiment of the '947 Patent, not the claimed Unique Identifier/Lack of Stored Location Data Embodiment. Petitioner and Mr. Williams' argument again is nonresponsive to the claim (Ex-2012, ¶125-126).

Moreover, van Boucq's cookie check fails to disclose limitation 1[c]. Van Boucq's cookie check determines whether the Internet user already has a connection cookie, which makes it possible to determine whether the geolocation of said Internet user has already been stored in a browsing device (Ex-1009, ¶¶[0060], [0063]). 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. A positive determination is not a negative determination. Claim 1 recites determining an identifier was not assigned (Ex-2012, ¶127). Limitation 1[c] does not claim determining that a unique identifier was assigned.

Conversely, assuming for the sake of argument that van Boucq's cookie has a unique identifier, van Boucq's determining that a connection cookie is not present does not teach or suggest limitation 1[c] (Ex-2012, ¶128). Under this hypothetical modification, van Boucq's cookie check determines that the cookie is not present and concludes from the lack of a cookie that no identifier was assigned (Ex-1009, ¶¶[0060], [0063]). Limitation 1[c], however, does not recite looking for a unique identifier and concluding from the lack of a unique identifier that no unique identifier was assigned. Claim 1 goes a step further because the claims are directed to the issue of receiving "anonymous data" (Ex-1001, 47:45). Because the data is anonymous, limitation 1[c] makes the claimed determination by using the "lack of stored location data for the user computing device" (Ex-1001, 47:54-56).

Moreover, van Boucq's cookie check does not teach or suggest limitation 1[c]. For example, 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. 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) (*see, e.g.*, Ex-1001, 9:52-55, 39:26-30, 43:55-59; Ex-2012, ¶129).

van Boucq's Pop-Up: Van Boucq teaches that if van Boucq's cookie check is negative, "the Web browser will send a pop-up (message) 270 asking the user if he/she wishes to be geolocated" (Ex-1009, ¶¶[0063], [0068]). Regardless of whether the user answers the pop-up yes or no, van Boucq creates a connection cookie (Ex-1009, ¶[0068]). 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 (Ex-2012, ¶130).

(d) Petitioner's Motivation to Combine Doughty and van Boucq is Senseless

Petitioner's combination of van Boucq for limitation 1[c] with Doughty for limitation 1[d] makes no sense. Petitioner asserts that limitation 1[d] is satisfied by Doughty assigning a Profile ID in table 105 at the remote server or by creating a hashed email address (Petition p. 27; Ex-1007, ¶156). Van Boucq's "connection cookie" has neither Doughty's unique identifier from table 105 nor Doughty's hashed email address. Nothing 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. Accordingly, there is no motivation for a POSITA to combine the teachings of Doughty and van Boucq in such a way as to arrive at limitations 1[c] and 1[d] (Ex-2012, ¶131).

2. Limitation 1[e] is Not Taught by Doughty and/or van Boucq

Claim limitation 1[e] is "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." Petitioner admits that Doughty fails to disclose limitation 1[e]. Instead, based on Mr. Williams, Petitioner asserts that limitation 1[e] is obvious over Doughty alone or Doughty in view of van Boucq (Petition p. 28; Ex-1007, ¶158). Neither argument has merit because neither reference discloses making the claimed determination based on "whether a location tracker is installed on the user computing device" (Ex-2012, ¶132-146).

(a) Doughty Alone does not Render Limitation 1[e] Obvious

Regarding Doughty, Petitioner and Mr. Williams admit that Doughty does not disclose limitation 1[e]. Mr. Williams states, "I have not seen explicit disclosure in Doughty that explains how to determine if the user opted-out of location tracking" (Ex-1007, ¶159; *see* Petition pp. 28-29). Instead, Petitioner argues that limitation 1[e] is obvious over Doughty because Doughty supposedly recognizes that "users can turn off browser cookies," and a POSITA would understand that: (i) Doughty "contemplates location tracking without cookies;" (ii) "location tracking is important to profile consolidation;" and (iii) the importance of determining location if a user opted out of sharing location data (Petition pp. 28-29 (citing Ex-1007, ¶¶159-161

and Ex-1008, 17:24-27)). According to Petitioner and Mr. Williams, based on this opinion, a POSITA would have found it obvious to "query the user's browser to determine whether the user has allowed location sharing" / "to see if third-party cookies have already been stored in the cache" (Petition p. 29; Ex-1007, ¶161). Petitioner's obviousness argument over Doughty alone is meritless for four reasons (Ex-2012, ¶134).

First, Mr. Williams and Petitioner are incorrect that "Doughty contemplates location tracking without cookies" (Ex-1007, ¶160). Mr. Willams bases his "Doughty contemplates" opinion merely on Doughty's recognition that a user can turn off browser's cookies (Ex-1007, ¶160 (citing Ex-1008, 17:23-26)). But Doughty's cited statement does not "contemplate location tracking without cookies," as there is no such disclosure in Doughty (Ex-2012, ¶¶135-136). Rather, Doughty's cited statement only teaches that "turning off browser cookies, will prevent pixel tags from tracking the user's activity" (Ex-1008, 17:23-26).

Second, it would not be obvious over Doughty alone to query the browser "to determine whether the user opted in or out of location tracking, based on whether a location tracker is installed on the user computing device" unless Doughty taught how to locate a user that opted out of location tracking. As Doughty fails to teach any such technique for locating a user that opted out of location tracking, there is no

reason to query the user to make the claimed determination based on Doughty (Ex-2012, ¶137).

Third, limitation 1[e] is not obvious over Doughty's recognition that a user can turn off browser cookies. Doughty's statement regarding turning off browser cookies is made in the context of Doughty's MKP Embodiment (Ex-1008, 16:62-65, 17:16-26). Doughty recognizes that "turning off browser cookies, will prevent pixel tags from tracking the user's activity" because, with cookies off, the HTML code for the pixel tag will not cause the user device to return previously set cookie values (Ex-1008, 17:16-25). Rather than suggesting to query the user's browser to make the claimed determination when cookies are off, Doughty teaches to identify the anonymous user with a hashed email address (Ex-1008, 17:50-51). In fact, Doughty's pixel tag embodiment is not concerned with tracking user location at all, so it makes no sense to jump from Doughty's disclosure to the claimed invention (Ex-2012, ¶138).

Fourth, Petitioner's and Mr. Williams' argument is nothing more than taking a reference that does not disclose a limitation and improperly filing in the gaps with expert hindsight. Mr. Willams takes the mere fact that Doughty recognizes that a user can turn off browser cookies and improperly makes several leaps to get from

that one sentence to the claim limitation. Mr. Williams' stretched obviousness conclusory opinion is not credible.

(b) Doughty and van Boucq fail to Render Limitation 1[e] Obvious

Van Boucq does not teach, suggest, or render obvious limitation 1[e] because van Boucq does not disclose making the claimed determination "based on whether a location tracker is installed on the user computing device" for three reasons (Ex-2012, ¶139).

First, Petitioner is repurposing van Boucq's cookie check for allegedly teaching both limitations 1[c] and 1[e]. Petitioner argues, while characterizing van Boucq's teaching with regard to limitation 1[c], 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" (Petition, pp. 25-26). Petitioner then argues, with regard to limitation 1[e], that "it would have been obvious to a POSITA that checking for this cookie would have been an efficient means of determining whether the user opted-out of location tracking" (Petition, p. 31). Van Boucq's disclosure of checking for the same cookie cannot be used to teach both limitations of 1[c] and 1[e] (*see* Ex-2012, ¶140).

Second, Petitioner incorrectly suggests that the Van Boucq's cookie check can be used "to determine if the user has already been geolocated—i.e., the user opted-in

to location tracking" (Petition p. 30). But van Boucq does not disclose the claimed "location tracker" because van Boucq discloses a static location, not location tracking (Ex-2012, ¶141). What van Boucq discloses is determining a single location on an initial connection of a computing device with the system and saving that location in a user "browsing device" via a connection cookie (Ex-1009, ¶¶[0060], [0063]). Because van Boucq's location is sent to the user when geolocation is performed on the initial connection with the system (*e.g.*, Ex-1009, ¶¶[0067]-[0068]), the location is static, the user location is not tracked, and van Boucq's "cookie" is not a "location tacker" (Ex-2012, ¶141). Van Boucq later looks for the connection cookie, which "makes it possible to determine whether the geolocation of said Internet user has already been stored in a browsing device" (Ex.1009, ¶[0063]). Thus, if the geolocation has already been performed upon the initial connection of the computing device with the system and is stored in a connection cookie, van Boucq uses that geolocation for advertisements (Ex-1009, ¶[0060]). If the user moves, the stored geolocation remains the same because van Boucq wants to provide the user advertisements associated with that location (*e.g.*, the presumed user's home) (cite; Ex-2012, ¶141).

Third, Petitioner's expert states without citation or support that van Boucq's cookie check "is an alternative way of determining that the user opted-in to location

tracking, separate from whether the user refused or ignored a pop-up" (Ex-1007 ¶163). This conclusory opinion finds no support in the cited portions of van Boucq and is contrary to van Boucq's teaching. Even if van Boucq's "connection cookie," could be considered the claimed "location tracker," van Boucq does not disclose the claimed "determination" because van Boucq installs a connection cookie after seeking consent using a pop up regardless of whether the user responds to or ignores the pop-up (Ex-10009, ¶¶[0063], [0068], [0069]). Accordingly, van Boucq's determination of whether the "connection cookie" is present 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. The presence of the connection cookie could be based on any of the three conditions. Accordingly, the presence of van Boucq's connection cookie is not a determination of whether the user opted in or out of location tracking (Ex-2012, ¶142).

Similarly, the absence of a "connection cookie," informs only that the user was not provided a connection cookie. As 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. But the absence of a cookie as taught by van Boucq cannot be used to make a determination of opting in or out of location tracking (Ex-2012, ¶143).

(c) Petitioner Fails to Establish a Motivation to Combine Doughty and van Boucq

Neither Doughty nor van Boucq teaches limitation 1[e], as explained above, so the combination likewise does not teach limitation 1[e]. Petitioner argues that Doughty's teaching that users can "turn off browser cookies" and of "location tracking without cookies" would motivate a POSITA to "find an alternative means of locating the user" (Petition pp. 28-29). The Petitioner cites portions of van Boucq that teach the "creation of a cookie" to store location to combine with Doughty (Petition pp. 29-31 (citing Ex-1009, ¶[0063])).

The proposed combination and modification is inconsistent with and contradicted by the purported motivation. If 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. Each of the three "approach[es]" taught by van Boucq requires checking for a "cookie (connection cookie)" (Ex-1009, ¶¶[0060], [0063], [0067]) and/or the "creation of a cookie" (Ex-1009, ¶¶[0063], [0068]) in the user's browser. There is no teaching in van Boucq of any technique that does not require cookies or that would work when the user has turned off cookies. 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 (Ex-2012, ¶145).

Moreover, a POSITA would not have been motivated to modify Doughty, with or without van Boucq, to arrive at limitation 1[e] because Doughty fails to discuss geolocating a user that opted out of location tracking. Doughty merely states the possibility that cookies may be disabled and explains that this would "prevent pixel tags from tracking the user's activity" (Ex-1008, 17:24-26). Doughty thus fails to teach or suggest the concept of user opting in/out of location tracking or of tracking the user in the event of an opt out, much less to suggest any way of doing so. Doughty thus fails to include any teaching or suggestion that might lead a POSITA to modify Doughty, with or without van Boucq, to arrive at limitation 1[e] (Ex-2012, ¶146).

3. Limitation 1[f] is Not Rendered Obvious by Doughty and/or van Boucq

Claim limitation 1[f] is "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 and Mr. Wiliams agree that neither Doughty nor van Boucq disclose limitation 1[f], as they only allege that the limitation is obvious over the references (Petition p. 31; Ex-1007, ¶165). Petitioner and Mr. Williams posit three obviousness theories, one based on sending a cookie with a unique identifier, one based on sending a pixel tag with a unique identifier, and one based on sending an unidentified "other tracking mechanism" with a unique identifier. None have any merit (Ex-2012, ¶147-163).

(a) Neither Doughty nor van Boucq Teach Sending "Cookies" for "Storage in Local Browser Cache"

Petitioner's obviousness theory based on sending a cookie with a unique identifier fails to establish obviousness of limitation 1[f] because neither Doughty nor van Boucq teach or suggest sending a cookie "for storage in a local browser cache." According to Petitioner and Mr. Williams, limitation 1[f] is obvious over Doughty and van Boucq because a POSITA "would know that cookies…are stored in the user's 'local browser cache'" (Petition p. 31; Ex-1007, ¶166). But Mr. Williams is incorrect because the standard location for storing cookies is in "cookie storage," not "local browser cache." Doughty and van Boucq are silent regarding where cookies are stored. Therefore, a POSITA reading Doughty and van Boucq would understand that the disclosed cookies are saved in the standard location, not local browser cache (Ex-2012, ¶149). Mr. Williams' opinion is contradicted by his own declaration, the sources he cites, and the '947 Patent's specification, industry standards, and the understanding of a POSITA, as explained by Dr. Gottesman.

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" (Ex-2012, ¶53, 150; *see generally* Ex-2012, ¶¶55-61, 68). For example, RFC 6265, which has been the standard for browser cookies since 2011, provides that after receiving a cookie from

a web server and performing required processing, the browser must "[i]nsert the newly created cookie into the cookie store" (Ex-2014, pp. 21-24; Ex-2012, ¶58). When later sending stored cookies to web servers, the browser must use a specified algorithm based on "the set of cookies from the cookie store" (*see, e.g.*, Ex-2014, p. 25; Ex-2012, ¶61). The standard further encourages web browser developers to support certain minimum size and volumes of cookies in the cookie store, (Ex-2014, p. 27), and to include a "mechanism for managing the cookies stored in the cookie store" (Ex-2014, pp. 28-29). In some older implementations, such as Netscape Navigator, cookies were stored in a text file, "COOKIE.TXT" as referenced by Mr. Williams (*see* EX-1007, ¶60 (citing Ex-1045, p. 2)). Many browsers have since moved to more sophisticated storage mechanisms, such as databases (*see* Ex-1013, p. 17 (noting browsers "should probably be cautious about using files to store cookies long-term")). Modern browsers thus keep their cookies in a dedicated cookie store (Ex-2012, ¶150).

A POSITA would not have understood that cookies, as disclosed by van Boucq and Doughty, are sent for storage in local browser cache. A POSITA would have understood that the local browser cache is a separate mechanism from the cookie store that has a different purpose, different function, and different standard (*see generally*, Ex-2012, ¶¶62-67). According to the relevant standard, RFC 9111,

an "HTTP 'cache' is a local store of response messages and the subsystem that controls storage, retrieval, and deletion of messages in it" (Ex-2016, p. 4; Ex-2020, p. 4). The purpose of the cache is to "reduce the response time and network bandwidth consumption on future equivalent requests" (Ex-2016, p. 4; Ex-2020, p. 4; Ex-2012, ¶64). Put another way, the "goal of HTTP caching is significantly improving performance by reusing a prior response message to satisfy a current request" (Ex-2016, p. 5; Ex-2020, p. 4; Ex-2012, ¶64). The core function of cache is to allow the web browser to load a web page faster by "reusing a prior response" from the web server (Ex-2016, p. 5; Ex-2020, p. 4; Ex-2012, ¶64). The purpose of cookies, by contrast, is to allow web servers to "store state (called cookies) at HTTP user agents [e.g. browsers], letting the servers maintain a stateful session over the mostly stateless HTTP protocol" (Ex-2014, p. 1). The cache standard does not include any provision for sending cached content back to the server (Ex-2012, ¶151). The core function of cookies, by contrast, is that the cookies may be sent back to the server on a subsequent visit to the same website (*see, e.g.*, Ex-2014, p. 6 (describing "a way for an origin server to send state information to a user agent [e.g. browser] and for the user agent to return the state information to the origin server"); Ex-2012, ¶151).

A POSITA would have understood that yet another distinction between cookies, as taught by Doughty and van Boucq, and browser cache is in the facilities that a web browser provides for user management of cache and cookies. For example, most web browsers offer the ability to clear the cache of the browser. Clearing the cache of the browser, however, will not clear the cookie store. Similarly, most browsers offer the option to clear some or all cookies. Doing so, however, will not also clear the browser cache. This further reinforces that cookies and cache have separate storage and separate management (Ex-2012, ¶152).

At his deposition, Petitioner's expert revealed little familiarity with the distinction between cookies and browser cache. For example, when asked at his deposition, "[w]hat is the cookie store" in the context of the relevant standard, Petitioner's expert acknowledged, after follow up, that he was "not sure" (Ex-2018, 17:19-18:2). He nevertheless acknowledged a key distinction between cookies and cache. When asked with respect to the Chrome browser whether "the feature to clear cache is separate from the feature to clear cookies," he responded that although he did not recall, "I think so" (Ex-2018, 26:10-13). Similarly, when asked with respect to Chrome whether he would "expect that clearing the cache would clear any cookies from the cookie store," he responded that he was not sure, but "I don't think so" (Ex-

2018, 26:18-20). Petitioner's expert thus acknowledged that in Chrome, cookies and cache have separate management mechanisms and can be cleared separately.

Even Petitioner's own evidence shows that a POSITA would have understood that cookies, as taught by Doughty and van Boucq, are saved in cookie storage, not local browser cache. For example, a 2015 paper cited by Petitioner provides a survey of "the existing literature on the methods currently used by web services to track the user online" (Ex-1012, p. 1). "HTTP cookies" is but one of the many tracking mechanisms discussed in this paper, while several others relate to cache (Ex-1012, p. 3 (Table I summarizing mechanisms)). This paper places HTTP cookies under the broader category of "storage-based tracking mechanisms" (Ex-1012, p. 5) while also including a separate category of "cache-based tracking mechanisms" (Ex-1012, p. 7). As this survey distinguishes cookie storage from cache storage, this paper further confirms that a POSITA would not have understood that van Boucq's and/or Doughty's cookies are sent for storage in local browser cache (Ex-2012, ¶153).

Consistent with a POSITA's understanding, the '947 Patent recognizes and relies upon the distinction between cookie storage and the local browser cache, as illustrated in Figures 5, 15, and 16 of the '947 Patent. For example, '947 Patent Figure 16 depicts separate operations for "[i]nstall cookie in browser" 512 and

"[s]tore unique ID in local cache of browser" 514, as shown in the figure reproduced below (Ex-2012, ¶154).

'947 Patent, Fig. 16 (Annotated)

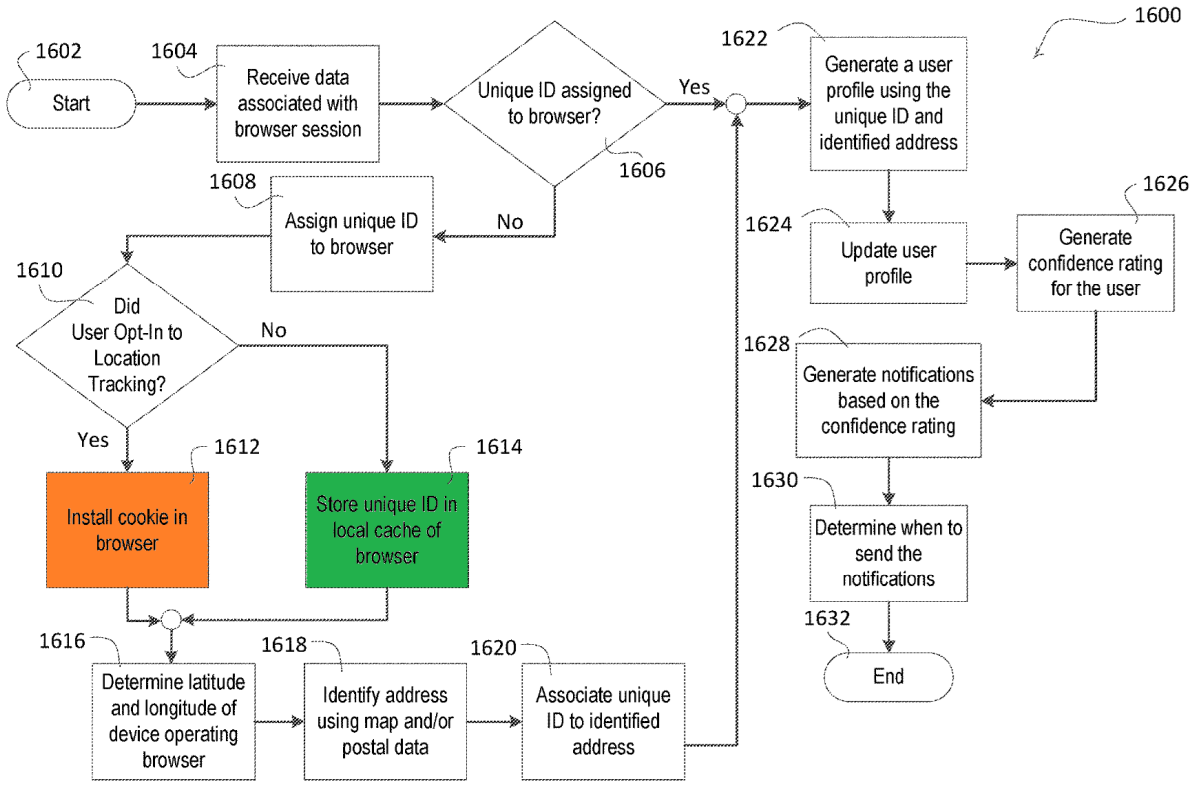


FIG. 16

The '947 Patent describes the "cookie" of step 1612 as a "tracking cookie, browser cookie, HTTP cookie, etc" (Ex1001, 44:31-35). A POSITA would have understood that the reference to "install cookie in browser" could include, for example, setting a cookie according to RFC 6265, discussed above (Ex-2012, ¶155). The '947 Patent explains that the "unique ID may be stored in the local browser cache, for example, even if the user computing device does not allow cookies (*e.g.,* full

cookies)" (Ex-1001, 44:62-64). A POSITA would have understood that the reference to the "local cache of browser" in step 1614 could include, for example, a cache such as that described in RFC 9111, discussed above (Ex-2012, ¶155).

As both van Boucq and Doughty are cited for cookies but do not state where the cookies are stored, a POSITA reading both references would understand that van Boucq's and Doughty's cookies are sent for storage in the cookie store, not in local browser cache, because the cookie store is the accepted place for storing cookies and the place where the cookie standard, RFC 6265, requires them to be stored (Ex-2012, ¶156). As neither van Boucq nor Doughty teach or suggest sending anything for storage in local browser cache, much less storage of a unique identifier, Limitation 1[f] is neither disclosed by or obvious in view of van Boucq and Doughty (Ex-2012, ¶156).

(b) van Boucq does not Render Obvious the "Sending upon Determining" Limitation

Limitation 1[f] requires sending the unique identifier "upon determining that the user opted-out of location tracking." The antecedent for "upon determining that the user-opted out of location tracking" in limitation 1[f] is "determining whether the user opted-in to or out of location tracking" as recited in limitation 1[e] (*see supra* §V.A.2). Mr. Williams opines that this limitation is obvious because van Boucq discloses sending a "connection cookie," which he contends renders limitation 1[f]

obvious (Ex. 1007, ¶165; *see* Petition pp. 31-32). As described above, however, van Boucq's connection cookie is not sent based on the recited determination (*see supra* §V.A.2.(b)). Therefore, limitation 1[f] is not obvious over van Boucq (Ex-2012, ¶157-158).

(c) Doughty does not Render Obvious the "Sending upon Determining" Limitation

Doughty likewise fails to disclose limitation 1[f] because Doughty fails to disclose "upon determining that the user opted-out of location tracking" as described above with reference to limitation 1[e] (*see supra* §V.A.2.(a)). As Doughty fails to disclose the antecedent contained in limitation 1[e] for the "upon determining that the user opted-out of location tracking," Doughty does not disclose limitation 1[f].

To the extent Petitioner claims that limitation 1[f] is satisfied by Doughty teaching sending a pixel tag or "other tracking mechanism" / "similar files" with a unique identifier (Petition p. 32; Ex-1007, ¶166), Petitioner's argument is deficient because Petitioner and Mr. Williams fail to even identify the alleged "unique identifier" that is sent with a pixel tag or "other tracking mechanism" / "similar files," much less how this alleged unique identifier satisfies all of the "unique identifier" claim limitations. For example, Mr. Williams states that a "POSA would know that cookies and similar files (e.g., pixel tags) would include the user's unique identifier" (Ex-1007, ¶166). No citation or explanation of the "unique identifier" provided with

the "pixel tag," "other tracking mechanism," or "similar files" is provided. In fact, the "other tracking mechanism" and "similar files" are themselves undefined. Thus, Petitioner's argument and Mr. Williams associated opinion lack merit (Ex-2012, ¶159).

Regarding the pixel tag allegations, Doughty has not been shown to teach or suggest including any identifier in a pixel tag. To the contrary, Doughty's pixel tags are described as "a transparent graphic image, usually no larger than one pixel by one pixel, placed on a webpage or in an email" (Ex-1008, 17:11-14). The pixel tag is described as being entirely dependent on cookies. For example, Doughty teaches that a "publisher attaches a pixel associated with the advertising network that enables a cookie to be served" (Ex-1008, 16:63-65). Doughty further teaches that "Turning off the browser's cookies will prevent pixel tags from tracking the user's activity" (Ex-1008, 17:24-26). In that case, the "pixel tag will still account for an anonymous visit, but the user's unique information will not be recorded" (Ex-1008, 17:26-27). Doughty's pixel tag is thus a mechanism that may enable a server to send a cookie. Doughty teaches that HTML code associated with the pixel tag can direct the user device to pass information such as the type of browser, user IP address, and previously set cookie values to the advertising network (Ex-1008, 17:16-20), but Doughty makes no mention of a unique identifier. Further, Doughty has not been

shown to teach or suggest using pixel tags to send a unique identifier to the user computing device based on the claimed determination of the user opting out of location tracking. Rather, Doughty teaches that the advertising network sends the pixel tag in response to a MKP communication with a user device, not based on the claimed determination (*see supra* §§II.E.1, V.A.2, V.A.2.(a); Ex-2012, ¶160).

Mr. Williams "other tracking mechanism" / "similar files" opinion is so vague it does provide any support for finding the claims obvious (Petition 32; Ex-1007, ¶166),

(d) Petitioner's Limitation 1[f] Arguments Fail Because Petitioner does not Consistently Apply a Unique Identifier

Limitations 1[c], [d]. and [f] all claim the same unique identifier. Limitation 1[f] requires "sending…the unique identifier to the user computing device." The antecedent bases for "the unique identifier" are in limitations 1[c] and 1[d]. Pettioner's obviousness arguments fail to show obviousness because Petitioner fails to establish any teaching or suggestion that the user identifiers that Petitioner cites regarding limitations 1[c] and 1[d] would be the same identifiers that would be sent to the user device for limitation 1[f].

For limitation 1[c], Mr. Williams relies on Doughty's Profile ID but also refers to undefined identifiers associated with a pixel tag and unidentified "tacking mechanisms" (Ex-1007, ¶¶147-149). For limitation 1[d], Mr. Williams relies on

Doughty's Profile ID and alternatively a hashed email address (Ex-1007, ¶156). For limitation 1[f], Mr. Williams refers to unidentified unique identifiers associated with cookies, pixel tags, and unidentified "other tacking mechanisms" (Ex-1007, ¶¶165-166). Mr. Williams opinion is improper. Mr. Williams cannot properly match one "unique identifier" claim limitation to one identifier in a reference, and match another claim limitation that claims the same "unique identifier" to a different identifier in the art. For example, Mr. Williams cannot properly claim that limitation 1[c]'s "unique identifier" limitation is satisfied by Doughty's Profile ID, limitation 1[d]s "unique identifier" is satisfied by Doughty's hashed email address, and limitation 1[f] is satisfied by an unknown unique identifier associated with an unidentified tracking mechanism because each limitation claims the same "unique identifier" (Ex-2012, ¶162).

To the extent Mr. Williams relies on an unidentified and undefined identifier included in "cookies and similar files (e.g., pixel tags)" (Ex-1007, ¶166), Mr. Williams and Petitioner have failed to provide any evidence or explanation of how or why a POSITA would have been motivated to configure this unidentified unique identifier to be the same "unique identifier" as that assigned per limitations 1[c] and [d] (*See* Ex-1007, ¶¶165-67), particularly given Doughty's disclosure of different systems (*i.e.*, a publisher and advertising network) for sending the different types of

identifiers (e.g., "cookies and similar files (e.g., pixel tags)") for different purposes (Ex-1008, 16:59-65; Ex-2012, ¶163).

Petitioner has thus failed to present any evidence that it would have been obvious to use the same user identifier for the three separate limitations 1[c], 1[d], and 1[f].

4. Limitation 1[l] is Not Rendered Obvious by Doughty or van Boucq

Claim limitation 1[l] is "identifying a second visit to the URL during the second browser session using the unique identifier stored in the local browser cache." Petitioner relies solely on Doughty for this limitation (Petition, pp. 39-40; Ex-2012, ¶¶164-170).

As explained above regarding limitation 1[f], neither Doughty nor van Boucq teaches, suggests, or renders obvious "sending…the unique identifier to the user computing device for storage in a local browser cache." Without 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. Doughty does not teach or suggest using a unique identifier as recited in the claim (Ex-2012, ¶166).

Most of the distinctions discussed above regarding limitation 1[f] apply equally to limitation 1[l]. To summarize the relevant distinctions that are set forth

more fully above regarding limitation 1[f]: (a) the cited cookies are not stored in local browser cache; (b) the cited "unique identifiers" are not sent to the user computing device upon the determination recited in limitation 1[e]; (b) Petitioner has failed to consistently identify the same universal identifier for each limitation that recites one; and (c) Doughty's pixel tags and "other mechanisms" have not been shown to send a unique identifier. For these same reasons, Doughty does not teach or suggest limitation 1[l] (Ex-2012, ¶167).

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 (Petition, pp. 39-40). The sole portion of Doughty that either Petitioner or its expert cite for limitation 1[l] (Ex-1008, 6:19-25) does not teach or suggest any identification or tracking of "using the unique identifier stored in the local browser cache" as recited in limitation 1[l]. Rather, this citation to Doughty discusses the information that the system receives and saves from the user to evaluate user activity (Ex-1008, 6:19-25). Thus. Petitioner's cited passage of Doughty does not teach or suggest any use of a unique identifier, much less during a second browsing session (Ex-2012, ¶168).

The only purported unique identifiers Petitioner identifies—the profile identifiers stored in table 105 and those associated with "hashed email addresses"

(Petition p. 27 (citing Ex-1008, 10:45-50, 17:28-32))—cannot satisfy limitation 1[l]. Limitation 1[l] recites "the unique identifier," and thus requires the same "unique identifier" that was previously sent to the user computing device, as recited in limitation 1[f]. Doughty's system, however, focuses on linking multiple devices to the same user upon each device's initial visit to a URL (Ex-1008, 11:37-39). Each user device would have a separate device identifier (Ex-2012, ¶169).

Finally, Petitioner contends in a single conclusory sentence that it would have been obvious "that the unique identifier of the user stored in the local browser cache would have been the mechanism for how two separate browsing sessions would be attributed to the same user" (Petition 40). The only support for this obviousness theory is a single, nearly-identical, conclusory sentence from Petitioner's expert that provides no explanation or citation to the record (Ex-1007 ¶187). This testimony, however, is not supported by Doughty because Doughty fails to disclose storing the Profile ID, the alleged unique identifier, on the user device.

B. Claim 11

Claim 11 recites a "machine-readable storage device" with substantially similar limitations to the above-referenced method steps of claim 1. For at least the reasons stated in the above-referenced analysis of claim 1, the applied prior art references for Ground I fail to teach at least the following limitations of claim 11 (Ex-2012, ¶171).

Claim	Reference to Analysis
11[c]: "determine that the user has not been assigned a unique identifier based on a lack of stored location data for the user computing device;" 11[d]: "assign the unique identifier to the user"	See above analysis related to 1[c] & 1[d]
11[e]: "determine whether the user opted-in to or out of location tracking, based on whether a location tracker is installed on the user computing device;"	See above analysis related to 1[e]
11[f]: "send, 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;"	See above analysis related to 1[f]
11[l]: "identify a second visit to the URL during the second browser session using the unique identifier stored in the local browser cache;"	See above analysis related to 1[l]

C. Claims 2-10 and 12-20

Claims 2-10 depend from claim 1 and therefore are not obvious for the same reasons as set forth above at least due to their dependency from claim 1. Claims 12-20 depend from claim 11. Therefore, claims 12-20 are not obvious for the same reasons as set forth herein at least due to their dependency from claim 11.

D. Secondary Considerations

Patent Owner does not submit secondary considerations at this juncture, and Petitioner has not identified any secondary considerations.

VI. Ground II: Petitioner's Three-Way Obviousness Combination Fails

Petitioner's Ground II is a three-way obviousness combination based on Doughty, van Boucq, and Maginnis. Ground II fails to establish obviousness because the references fail to disclose or render obvious at least limitations 1[c], 1[d], 1[e], 1[f] and 1[l] and there is no motivation to combine the references in such a way as to form the claimed invention. The only difference between Ground I and Ground II is that Petitioner argues for Ground II that Maginnis discloses limitation 1[h] (Petition pp. 57-58). Thus, adding Maginnis to the mix does not cure the deficiencies of the teachings of Doughty and van Boucq as explained in detail above regarding Ground I (Ex-2012, ¶174).

VII. Word Count Certification

Petitioner certifies Under 37 C.F.R. § 42.24(d) that the word count in this Petition is 11,501 words, as counted by the word-processing program (Microsoft Word for Office 365) used to generate this Petition, where such word count excludes the table of contents, table of authorities, mandatory notices, certificate of service, table of exhibits, and this certificate of word count. This Petition is in compliance with the 14,000 word limit set forth in 37 C.F.R. §42.24(b).

VIII. Conclusion

Patent Owner respectfully requests that the Board find all Challenged Claims of the '947 Patent to be patentable for all the reasons stated above.

Respectfully submitted,
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Date: September 9, 2025

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Certificate Of Service

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on September 9, 2025, a copy of the Patent Owner Response and all accompanying exhibits have been served electronically via email to the following counsel of record for Petitioner:

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