

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TARGET CORPORATION,
Petitioner,

v.

PROXICOM WIRELESS, INC.,
Patent Owner.

IPR2020-00979
Patent 9,161,142 B2

Before BRIAN J. McNAMARA, CHARLES J. BOUDREAU and
SEAN P. O'HANLON, *Administrative Patent Judges*.

McNAMARA, *Administrative Patent Judge*.

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

I. BACKGROUND

On December 4, 2020, we instituted an *inter partes* review of claims 1–8 (the “challenged claims”) of U.S. Patent No. 9,161,164 B2 (“the ’164 Patent”). Paper 11 (“Dec. to Inst.”). Patent Owner filed a Patent Owner Response (Paper 20, “PO Resp.”), Petitioner filed a Petitioner Reply (Paper 24, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 25 “PO Sur-reply”). A transcript of an oral hearing held on September 1, 2021 (Paper 31) has been entered into the record.

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. §318 (a). We base our decision on the preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

Having reviewed the arguments of the parties and the supporting evidence, we conclude that Petitioner has demonstrated by a preponderance of the evidence that all of the challenged claims are unpatentable.

II. THE ’164 PATENT

The ’164 patent is “generally concerned with facilitating the exchange of information and transactions between two entities associated with two wireless devices when the devices are in close proximity to each other.” Ex. 1001, 2:60–64 According to the ’164 patent, disadvantages of direct communication between short range devices using WiFi or Bluetooth techniques include the risk that two such devices will lose their ability to communicate when they are no longer in close proximity and the risk of exposure of locally stored sensitive information or fraud by unauthorized spoofing devices. *See id.* at 2:42–56. The ’164 patent addresses these and other issues with a system “utilizing both a short range and a long range wireless capability.” *Id.* at 2:63–64.

Figure 1 of the '164 patent is reproduced below.

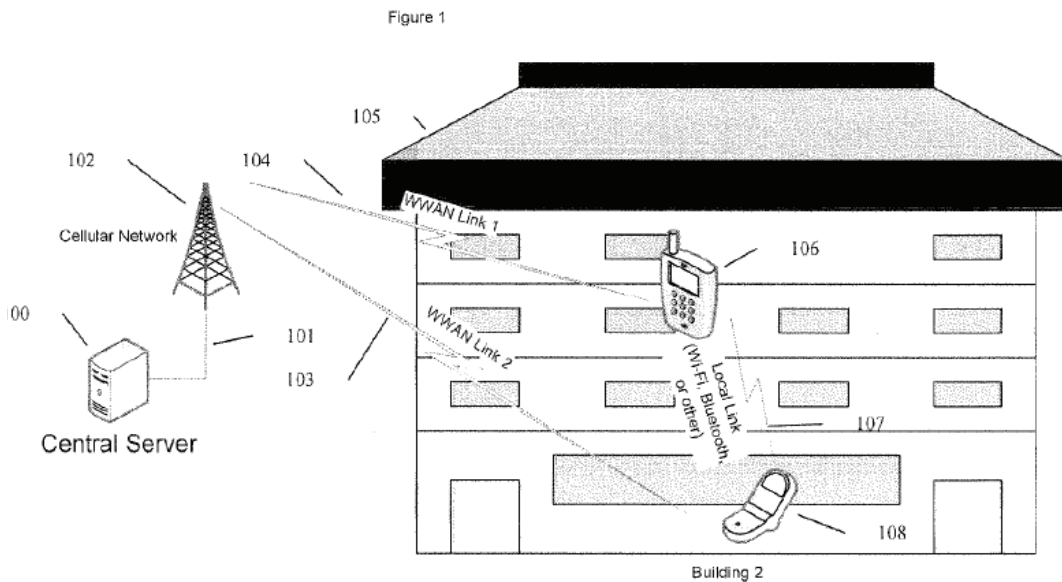


Figure 1 of the '164 patent

Figure 1 of the '164 patent is a block diagram of two mobile devices utilizing a preferred embodiment. Ex. 1001, 5:14–15. Devices 106, 108 communicate over short range wireless link 107 (such as a Bluetooth IEEE802.15.1 link or a WiFi IEEE802.11 link) to allow a device, e.g., device 106, to detect the presence of other devices, such as device 108. *Id.* at 6:42–45. Devices 106, 108 use wide area wireless network connections 103, 104 (such as IS-2000, WCDMA, GPRS, EDGE, LTE, Wi-Max (IEEE802.16), to communicate to central server 100 and perform actual substantive communications, e.g., for device 106 to communicate with device 108. *Id.* at 6:45–50. Device 108 uses short range wireless link 107 and wide area wireless link 103 in a similar manner to communicate with device 106. *Id.* at 6:50–53. Wireless link 107 is used only for the detection process or to advertise a device's presence to pass a “wireless identifier” (or “identifier”) between devices 106 and 108 during the proximity detection

process. *Id.* at 6:53–62. Facilitating communication between the devices using identifiers and standard Wireless Wide Area Network (WWAN) or 3G communications requires less resources than peer to peer communications and allows the devices to continue to communicate when no longer in close proximity. *Id.* at 6:66–7:18. This approach also allows a central server to control content based on the identity of the device.

Figure 2 of the '164 patent is shown below.

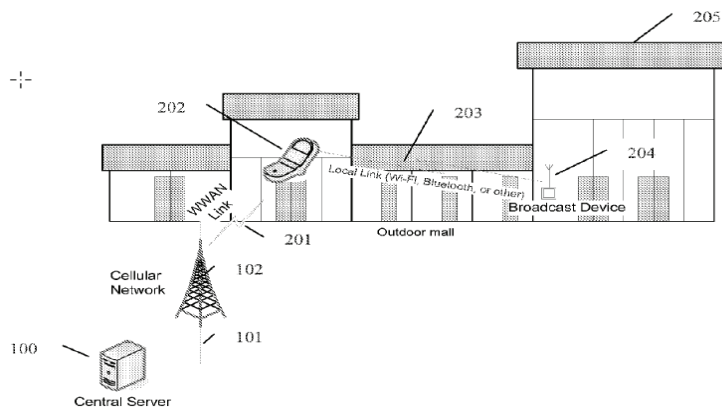


Figure 2 of the '164 patent

Figure 2 is a block diagram of a fixed broadcast Device and a mobile device. Ex. 1001, 5:16–17. In a museum application, exhibit associated device 204 does not have a WWAN connection, but advertises its presence by broadcasting a local identifier. *Id.* at 7:39–46. A museum patron's device 202 passes the identifier to central server 100. *Id.* at 7:46–47. Central server 100 recognizes the identifier as being associated with that particular exhibit and passes relevant information content (pictures, text, web pages, games, coupon offers, etc.) to the patron's device 202, even after the patron has left the proximity of exhibit associated device 204. *Id.* at 7:47–54, 8:49–61.

The '164 patent also states that in a similar way broadcast device 204 may be associated with an account of an individual or entity that contains personal information and information regarding allowed communication.

Ex. 1001, 8:44–52. Policy based permission associated with each account and applied to information associated with that account can be used to determine what information and under what circumstances information may be disclosed to another device or user associated with another account. *Id.* at 8:62–9:7.

Figure 9 of the '164 patent is shown below.

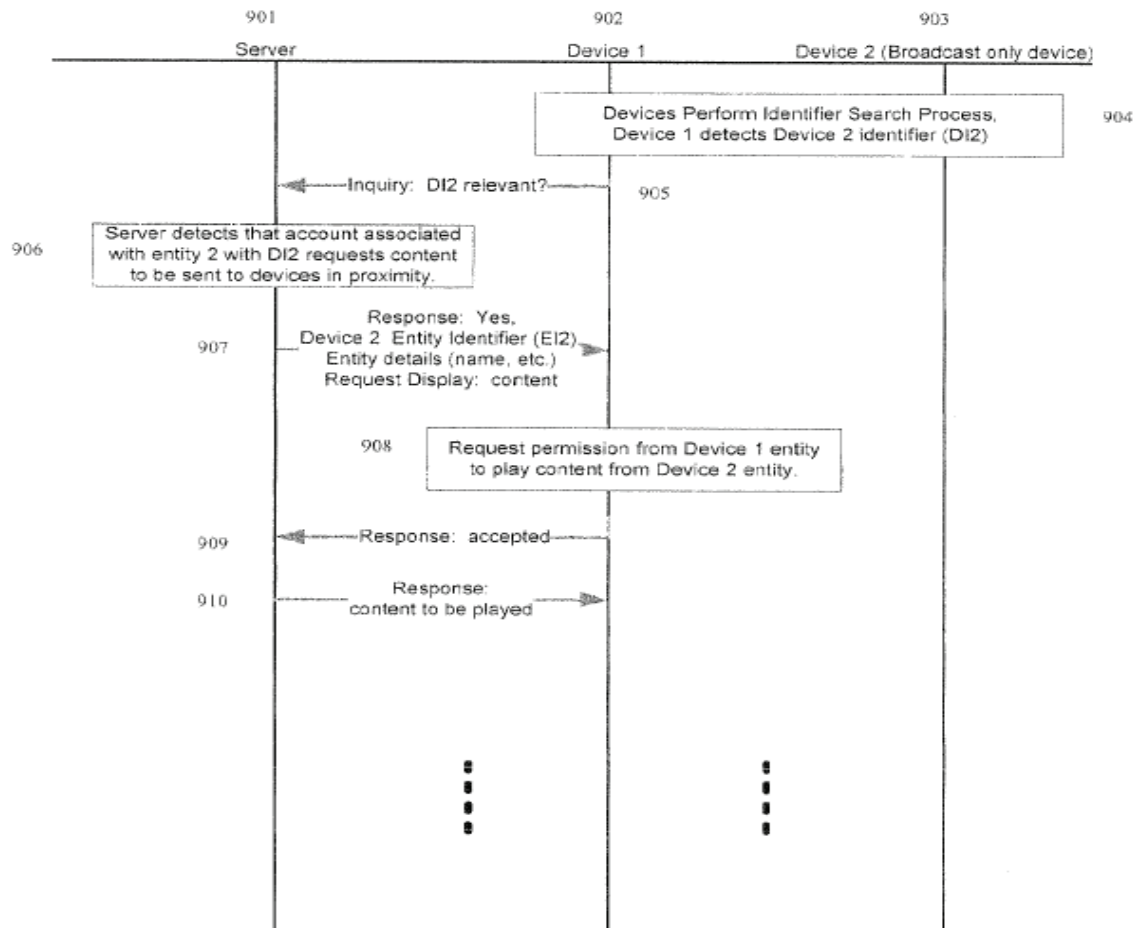


Figure 9 of the '164 patent

Figure 9 illustrates a grocery store example in which customer device 902 (Device 1) scans for identifiers (step 904) and detects identifier DI2 transmitted from device 903. *Id.* at 14:46–53. Customer device 902 (Device 1) sends a message to server 901 inquiring if device identifier DI2 is relevant to the entity (customer) associated with the customer device (Device 1) and

if information associated with device identifier DI2 is available for return. *Id.* at 14:53–57. At step 906 server 901 retrieves the accounts associated with identifier DI2 and the customer device (Device 1). *Id.* at 14:57–58. Server 901 detects that there is a coupon and other multimedia content available for download to customer Device 1 and that the settings in the customer account allow for notification of broadcast devices in proximity. *Id.* at 14:59–65. Server 901 retrieves response message 907 indicating the presence of the detected Device and the content available. *Id.* at 14:66–15:1. Customer device 902 requests input from the entity associated with server 901 for permission to download the coupon and other available content. *Id.* at 15:1–7. Message 909 from customer Device 1 accepting the content is sent to server 901 and response message 910 begins content delivery. *Id.* at 15:6–8.

III. ILLUSTRATIVE CLAIM

Independent claim 1, reproduced below with paragraph designations used in the Petition, is illustrative of the subject matter of the '164 patent.

1[pre]. A system for facilitating use of proximity beacons for the exchange of information between a first wireless device or a first entity associated with the first wireless device and a second wireless device or a second entity associated with the second wireless device, the system comprising:

[a] at least one server for providing a second unique identifier associated with an account associated with the second entity comprising:

[b] a server data processor, for locating a disclosure policy associated with the second unique identifier or associated with the account associated with the second entity, and for comparing the disclosure policy to a first unique identifier associated with the first wireless device or other data associated with an account associated with the first entity associated with the first wireless device, wherein the disclosure policy specifies

data representing one or more rules for privacy of information concerning the first wireless device or the entity associated with the first wireless device and the second wireless device or the entity associated with the second wireless device; and

- [c] a network interface, for communicating first information to the first wireless device as permitted by the disclosure policy, wherein at least a portion of the first information includes the second unique identifier;
- [d] a mobile device for operating as the first wireless device and for receiving information related to the second wireless device or the entity associated with the second wireless device further comprising:
 - [e] a first radio for communicating with the server and receiving the first information including the second unique identifier;
 - [f] a second radio for receiving proximity beacon transmissions utilizing a local or personal area wireless protocol, and for providing received proximity beacon information derived from the proximity beacon transmissions; and
 - [g] a mobile device data processor for receiving the proximity beacon information from the second radio and performing an action function to detect the proximity of a device associated with the second unique identifier, wherein the action function compares the proximity beacon information with the second unique identifier to determine if the proximity beacon information corresponds to the second unique identifier to determine said proximity of the device associated with the second unique identifier.

IV. GROUNDS OF INSTITUTION

We instituted *inter partes* review of all challenged claims on all asserted grounds identified below:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–7	102	Mgrdechian ¹

¹ U.S. Patent No. 7,545,784 B2, issued Jun 9, 2009 (Ex. 1005).

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–8	103	Mgrdechian
1–8	103	Mgrdechian, Kaplan ²
3, 4	103	Mgrdechian, Kulakowski ³
3, 4	103	Mgrdechian, Kaplan, Kulakowski
7	103	Mgrdechian, Eagle ⁴
7	103	Mgrdechian, Kaplan, Eagle
8	103	Mgrdechian, Behrens ⁵
8	103	Mgrdechian, Kaplan, Behrens

See generally Dec. to Inst.

V. ANALYSIS OF PRIOR ART CHALLENGES

A. Introduction

“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) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden of persuasion never shifts to Patent Owner. See *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

Anticipation is a question of fact, as is the question of what a prior art reference teaches. *In re NTP, Inc.*, 654 F.3d 1279, 1297 (Fed. Cir. 2011).

² U.S. Patent No. 8,295,819 B1, issued Oct. 23, 2021 (Ex. 1024).

³ International App. No. WO 2007/084973 A2, published Jul. 26, 2007 (Ex. 1013).

⁴ U.S. Patent Application Publ. US 2005/0250552 A1, published Nov. 10, 2005 (Ex. 1004).

⁵ U.S. Patent Application Publ. US 2010/0138481 A1, published Jun. 3, 2010 (Ex. 1015).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. Inc., v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987); *see also Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1334 (Fed. Cir. 2008) (explaining that to anticipate a patent claim under 35 U.S.C. § 102, “a single prior art reference must expressly or inherently disclose each claim limitation”). Moreover, “[b]ecause the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements ‘arranged as in the claim.’” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)).

Whether a reference anticipates is assessed from the perspective of an ordinarily skilled artisan. *See Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003) (“[T]he dispositive question regarding anticipation [i]s whether one skilled in the art would reasonably understand or infer from the [prior art reference’s] teaching that every claim element was disclosed in that single reference.” (quoting *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991))).

Additionally, under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates. *MEHL/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999) (citation omitted); *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349–50 (Fed. Cir. 2002).

As set forth in 35 U.S.C. § 103(a),

[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

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 ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)); *see also In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327, 1333 (Fed. Cir. 2016) (citing *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed. Cir. 2006)).

An obviousness 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.” *KSR*, 550 U.S. at 418; *accord In re Translogic Tech., Inc.*, 504 F.3d 1249, 1259 (Fed. Cir. 2007). Petitioner cannot satisfy its burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016). Instead, Petitioner must articulate a reason why a person of

ordinary skill in the art would have combined the prior art references. *In re NuVasive*, 842 F.3d 1376, 1382 (Fed. Cir. 2016).

A reason to combine or modify the prior art 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. *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328–29 (Fed. Cir. 2009) (quoting *KSR*, 550 U.S. at 418–21).

Before determining whether a claim is obvious in light of the prior art, we consider any relevant evidence of secondary considerations of non-obviousness. *See Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of non-obviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). No evidence of such secondary considerations of non-obviousness has been presented in this proceeding.

We analyze the asserted grounds of unpatentability in accordance with these principles to determine whether Petitioner has established unpatentability of the challenged claims by a preponderance of the evidence.

B. Claims 1–8 as Anticipated by or Obvious Over Mgrdechian (Grounds 1 and 2)

Petitioner asserts that Mgrdechian anticipates claims 1–7 and that claims 1–8 are obvious over Mgrdechian. In view of their overlap, we address these grounds together.

1. *Mgrdechian*

Mgrdechian discloses a communications system in which a first wireless device with a unique identification, e.g., a Bluetooth ID or an RFID, receives over a local wireless protocol unique identifications of one or more other wireless devices. *See* Ex. 1005, 3:13–42, 3:59–67. A first wireless device can receive identifications (and, in some cases, available locally stored profile information) from other devices in its vicinity in response to a query from the first device or from a broadcast by the other devices. *Id.* at 4:1–3, 6:44–61, 16:10–15. The first wireless device transmits the unique wireless identifications to a remote computer or server over a second wireless network or the Internet and receives from the remote server information associated with the wireless device identifications. *Id.* at 3:59–67, 10:49–53, 16:36–42. For example, in response to a request from a user of the first device (User A), the server generates a reply that includes profile information associated with the device IDs in the request, to the extent the user of the other devices, e.g., User B, has authorized the disclosure of such information. *Id.* at 5:51–65, 10:56–11:4, 16:62–17:12. Authorized profile information associated with each device ID may be viewed and stored on the initiating user’s wireless device (Device A) for use in contacting the users of target devices, e.g., Users B and C, at a later time. *Id.* at 12:18–30.

Mgrdechian also discloses that the remote computer can compare the profiles associated with IDs to predefined preferences of the initiating user (User A), to alert the initiating user to the presence of persons-of-interest. Ex. 1005, 14:55–65. The server may also provide a user with information regarding “friends of friends,” forming a mobile social networking service. *Id.* at 5:36–38.

Mgrdechian also teaches an extended range operation embodiment in which a target device returns to the initiating device its device ID and the device IDs of other devices in its (the target device's) range that may not be within the range of the initiating device. Ex. 1005, 19:43–57. With this information, the detection range of the initiating device is extended a distance d1 (one hop from the target to an out of range device) or by taking the devices in series a further distance, e.g., d2 (an additional hop from the out of range device to another out of range device). *Id.* at 19:29–67.

Another embodiment in Mgrdechian extends the communication range using a positional database. See Ex. 1005, 20:1–47. In this embodiment, the IDs of devices are uploaded to a central server to create a positional database. *Id.* at 20:3–7. For example, if Device A issues an ID request and receives responses from devices B and E, Device A send the IDs of devices B and E to the remote server, causing the remote server to return profile information for devices B and E to Device A. *Id.* at 20:9–25. If the positional database of the remote server indicates Device C is within the range of Device B and if the system is programmed to return information for all users within one hop, the system also will return to Device A information associated with Device C's ID. *Id.* at 20:14–30, Fig. 10. Similarly, if the positional database indicates device D is within range of Device C and the system is programmed to return information for all users within two hops, the server also returns to Device A information associated with device D's ID. *Id.* at 20:31–35.

2. *Claim 1*

The Petition identifies as the preamble of claim 1 the recitation “A system for facilitating use of proximity beacons for the exchange of information between a first wireless device or a first entity associated with

the first wireless Device and a second wireless device or a second entity associated with the second wireless device, the system comprising.”

Pet. 25–26. Petitioner cites Mgrdechian as disclosing a system in which devices continuously or intermittently broadcast their IDs or other information (i.e., proximity beacons) allowing their detection by other devices within range in order to exchange information between a first wireless device, e.g., Device A, and second wireless device, e.g., Device B or Device C, or entities associated with the devices. *Id.* (citing Ex. 1005, 6:59–61, 9:65–10:5). Petitioner asserts that Mgrdechian discloses the claimed “information” as wireless device identifications and information associated with those identifiers, such as profile information corresponding to the wireless IDs. *Id.* at 26 (citing Ex. 1005, 3:34–35, 3:59–67, 11:57–58). Petitioner further cites Mgrdechian’s disclosure of an expanded range feature in which Device A, having requested from a server profile information associated with devices B and E that are within range of Device A also receives from the server profile information associated with Device C because Device C is within range of Device B. *Id.* at 27–28 (citing Ex. 1005, 20:1–47, Figs. 3A, 10; Ex. 1003, Williams Decl. ¶¶ 94–97).

Based on the full trial record, we are persuaded that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses a system with the features recited in the preamble of claim 1.

a) Claim Limitation [1.a]

The Petition identifies as claim limitation [1.a] the recitation “at least one server for providing a second unique identifier associated with an account associated with the second entity comprising.” Pet. 28. Petitioner cites Mgrdechian’s disclosure of an expanded range feature in which Device A, having requested from a server profile information associated with

Devices B and E that are within range of Device A, also receives from the server profile information associated with Device C because Device C is within range of Device B. *Id.* at 28–30. Noting that Mgrdechian discloses the server uses Device C’s ID and returns profile information for Device C, and that Device A saves profile information the server returns for Device C, Petitioner contends that Device A saves Device C’s unique identifier, so that Device A can use Device C’s identifier to message Device C when Device C comes within range of Device A. *Id.* at 28–29; *see also id.* at 39–42 (discussing claim limitation [1.g]). Petitioner contends that to provide Device A the ability to message Device C when Device C subsequently comes within range, at a minimum it would have been obvious for Device C’s ID, e.g., Bluetooth ID, to be included with the profile information sent by the server to Device A. *Id.* at 22 (citing Ex. 1005, 5:31–35, 12:48–50, 13:32–34; Ex. 1003, Williams Decl. ¶ 87). Patent Owner does not respond explicitly to Petitioner’s arguments concerning claim limitation [1.a].

Based on the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses a system with the features recited in claim limitation [1.a].

b) Claim Limitation [1.b]

The Petition identifies as claim limitation [1.b] the recitation “a server data processor, for locating a disclosure policy associated with the second unique identifier or associated with the account associated with the second entity, and for comparing the disclosure policy to a first unique identifier associated with the first wireless device or other data associated with an account associated with the first entity associated with the first wireless device, wherein the disclosure policy specifies data representing one or more

rules for privacy of information concerning the first wireless device or the entity associated with the first wireless device and the second wireless device or the entity associated with the second wireless device.” Pet. 30–31. Petitioner cites Mgrdechian as disclosing a processor in a server that retrieves and returns information for all users active within one hop, including Devices B and C to the extent that disclosure policies of Devices B and C match with parameters of a disclosure policy of Device A. *Id.* at 31–32 (citing Ex. 1005, 13:50–14:8, 16:16–19, 16:60–17:10, 20:1–47, Figs. 7A–7B; Ex. 1003, Williams Decl. ¶¶ 103–107). Patent Owner does not respond explicitly to Petitioner’s arguments concerning claim limitation [1.b].

Based on the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses a system with the features recited in claim limitation [1.b].

c) Claim Limitation [1.c]

The Petition identifies as claim limitation [1.c] the recitation “a network interface, for communicating first information to the first wireless device as permitted by the disclosure policy, wherein at least a portion of the first information includes the second unique identifier.” Pet. 33–34. Petitioner cites Mgrdechian as disclosing that the computer system has a network interface because the computers are coupled to the Internet. *Id.* at 34 (citing Ex. 1005, 10:48–61). Petitioner also cites Mgrdechian as disclosing that the computer system uses Device C’s ID to return some or all of Device C’s profile information to Device A, and that it would have at least been obvious to include Device C’s ID as information returned with Device C’s profile information. *Id.* (citing Ex. 1005, 12:18–26, 20:1–47,

Fig. 10; Ex. 1003, Williams Decl. ¶¶ 108–113). As discussed above, where Devices A and B are in range of each other and Device C is in range of Device B, but not Device A, Mgrdechian discloses the server returning to Device A some or all of Device C’s profile information, even though Device A has not detected Device C. *See* Section V.B.1; Ex. 1005, 20:1–47.

In the Decision to Institute, we agreed with Petitioner that for Device A to store Device C’s profile information and make use of it when Device C comes within Device A’s range, delineating the profiles of a user corresponding to Device B and a user corresponding to Device C using the corresponding device IDs is an obvious expedient, particularly because user devices announce their presence by transmitting their device IDs or by responding to inquiries addressed to their device IDs. Dec. to Inst. 29–30. Thus, we stated that we were persuaded Petitioner had shown Mgrdechian teaches that, at least in some circumstances, it would have been obvious that the server communicate a second unique identifier associated with an account associated with the second entity, as recited in claim limitation 1[c]. *Id.*

Patent Owner keys on our discussion that claim limitation [1.c] would have been at least obvious to argue that claim limitation [1.c] is not anticipated by Mgrdechian. PO Resp. 23–24. Patent Owner contends the portions of Mgrdechian that Petitioner cites teach only that profile information is returned to Device A and that these portions of Mgrdechian are silent about sending any kind of device ID to Device A. *Id.* at 26. According to Patent Owner, “Petitioner’s assertion that ‘[a] POSITA would have understood that the profile information returned from the server for Device C includes its ID’ (Reply, 2) is not supported by Mgrdechian.” PO Sur-reply 2 (alteration in original).

Noting that the Decision to Institute found a likelihood of success on the anticipation ground, Petitioner responds that the argument in Patent Owner's Response ignores what Mgrdechian discloses to a person of ordinary skill. Pet. Reply 2–3. Petitioner argues that Mgrdechian discloses to a person of ordinary skill that when Device C (the claimed second wireless device) is within one hop of Device A (the claimed first wireless device), “the server automatically uses Device C's ID (the claimed second unique identifier)” and “return[s] information associated with Device C's ID to Device A” through the server's network interface; this enables Device A to scan for and communicate directly with Device C when Device C is in range. *Id.* at 2 (alteration in original) (citations omitted).

Although Mgrdechian distinguishes between device IDs and profile information associated with device IDs, Mgrdechian consistently refers to profile information as associated with device IDs, e.g., the server uses the device ID to locate the corresponding profile information. *See, e.g.*, Ex. 1005, 11:53–57. Mgrdechian discloses embodiments in which “the one or more wireless identifications are unique identifications” and “the unique identifications include a Bluetooth identification or an RFID.” *Id.* at 3:33–36. Mgrdechian also explicitly states that “profile information . . . may be associated with a wireless device ID.” *Id.* at 8:33–34, 11:26–27 (referencing Figs. 3C, 3D showing in a dating application the types of profile information that may be associated with a wireless device ID). As the information (e.g., location, school, religion, occupation, interest, favorite, entertainment, and photo) in the profile in Figures 3C and 3D would be associated with a specific user, we find that Mgrdechian explicitly discloses to a person of ordinary skill associating a unique wireless ID with a specific profile.

Whether a reference anticipates is assessed from the perspective of an ordinarily skilled artisan. *See Dayco Prods.*, 329 F.3d at 1368 (Fed. Cir. 2003) (“[T]he dispositive question regarding anticipation [i]s whether one skilled in the art would reasonably understand or infer from the [prior art reference’s] teaching that every claim element was disclosed in that single reference.” (quoting *In re Baxter Travenol Labs.*, 952 F.2d at 390 (Fed. Cir. 1991))). Although Mgrdechian describes a portion of the profile information being returned to Device A without explicitly enumerating returning Device C’s wireless ID, Mgrdechian’s disclosure that profiles may be associated with wireless IDs informs a person of ordinary skill that the wireless ID would be among the information returned because the wireless ID is a key piece of reference information essential for Device A to scan for and recognize Device C. *See Ex. 1005*, 20:56–58 (“a user may scan for profiles in the vicinity, e.g., by transmitting an identification request); *see also id.* at 10:45–47 (“When an identification request is received, one or more of these devices may access and transmit a device ID back to [the] initiating device . . . in a reply.”).

As Petitioner points out, Mgrdechian discloses a “daisy chain” embodiment in which the server responds to a request from Device A by transmitting the IDs of neighboring Devices B and E to Device A. *Pet. Reply* ; *Ex. 1005*, 20:1–10. Although Patent Owner acknowledges that the server uses the device ID (Device C’s ID) to locate and return information associated with Device C’s ID to Device A, Patent Owner contends that Mgrdechian does not teach or suggest Device C’s ID would be returned to Device A. *PO Resp.* 17.

Figures 3C and 3D illustrate the content of a profile. A profile is associated with a wireless Device and would be useless as a feature of

Mgrdechian if it could not be located. Mgrdechian discloses locating the profile using a wireless ID. *See, e.g.*, Ex. 1005, 11:53–57. We find that when the server returns Device C’s profile information to Device A as a result of Device A encountering a different device, e.g., Device A encountering Device B, the server must distinguish the profile information for Device B from that associated with Device C. As Mgrdechian discloses profiles are associated with Device IDs, we find that to a person of ordinary skill Mgrdechian discloses transmitting the Device ID associated with a profile, for purposes of anticipation.

Patent Owner’s arguments on obviousness characterize the Petition as asserting obviousness based on a “direct communication rationale,” a “saved profile rationale,” and a “reducing inquiries to the server rationale.” PO Resp. 28–40. Patent Owner argues that Petitioner’s “direct communication” rationale fails because “there is no need for Device A to use Device C’s Bluetooth ID for Bluetooth discovery or ‘portable profile’ exchange,” but “these are the only two uses Mgrdechian actually discloses for ‘direct communication between the wireless devices’ using Bluetooth.” PO Resp. 32–37 (emphasis omitted). According to Patent Owner, after Device A discovers and provides the Bluetooth ID to the remote computer to obtain profile information, Mgrdechian contemplates no further Bluetooth communication and that such direct communication is impossible in its multi-hop embodiment, e.g., when Device C is not in range of Device A. *Id.* at 32. Patent Owner further argues that “Mgrdechian teaches that once the Bluetooth discovery phase is complete, Device A can contact the user of Device B by email, text, IM, or phone message as previously specified by the target user,” especially if the context of the contact requires the users to be in proximity. *Id.* at 33–34. We agree with Petitioner that Mgrdechian’s

teaching of other forms of communication is irrelevant because Mgrdechian discloses that “messages can be sent ‘directly’ from device-to-device using a ‘local wireless protocol’, e.g., using device IDs” when devices are within range. Pet. Reply 9 (citing Ex. 1005, 5:31–35, 8:5–14, 12:18–26, 12:48–50, 13:32–34, 20:56–21:6). Mgrdechian also states “the present invention allows a user to . . . view the profile of any other user in their immediate vicinity.” Ex. 1005, 4:40–42.

Patent Owner also argues that “Petitioner’s purported rationale of ‘facilitating identification of saved profiles’ is also incorrect.” PO Resp. 35–37. The parties appear to agree that a unique ID is required to access a saved profile. *See e.g.*, Pet. Reply 6 (citing Ex. 1005, 7:23–32, 8:5–14, 10:10–15, 13:50–14:8, 15:44–60, 16:16–33, 20:56–21:6; Pet. 24, 28–29, 39–40, 43, 48–49; PO Sur-reply 3 (citing Ex. 2016, Williams Tr. 86:2–88, 95:18–97:13)). Patent Owner argues “Petitioner’s implication is that the *only* acceptable unique identifier as a primary key for saved profiles is the Bluetooth ID or other device identifier that is transmitted between devices in Mgrdechian’s system, or, at minimum, that the device ID would be ‘a suitable option.’” PO Sur-reply 3–4 (citing Pet. Reply 4–6). According to Patent Owner, the Device ID would not be a suitable option because Device IDs may change periodically; instead a more suitable approach is to employ a unique user ID in a relational database set up by the user in which the Bluetooth ID is an indexed field associated with the user ID. *Id.* at 3–4, 7; PO Resp. 35–36 (citing Ex. 1005, 6:62–7:22; Ex. 2010, Foley Decl. ¶ 58). Petitioner responds that “[Patent Owner] introduces out of whole cloth the concept of a ‘user ID,’” and “Mgrdechian does not disclose a ‘user ID,’ let alone querying a relational database by user ID.” Pet. Reply 4 (citing PO Resp. 35–36). We agree with Petitioner that the subject matter Patent

Owner cites from Mgrdechian does not support Patent Owner’s argument. Petitioner also notes that, contrary to Patent Owner’s assertions, neither the Petition nor Mgrdechian limits device IDs to Bluetooth IDs. *Id.* at 4 n.2 (“Mgrdechian’s device identifier is not limited to a Bluetooth ID.” (citing, e.g., Ex. 1005, 3:34–35, 7:19–21, 8:5–14, 12:18–26, 16:16–19, 20:1–47)).

As Petitioner points out, Patent Owner’s arguments that a newly detected Device C ID might no longer match because the ID may change periodically “acknowledges that the ID does match and will always match if the ID is ‘static’ and will continue to match until it is changed at a later time when the ID is ‘dynamic’ or ‘pseudo-random.’” Pet. Reply 7. “When the ID matches, inquiries to the server are reduced—providing the very benefit that Mgrdechian itself seeks.” *Id.*; *see also id.* at 6 (explaining that a person of ordinary skill would have been motivated to compare a received ID with locally saved profiles to eliminate or reduce redundant requests to the server).

We agree with Petitioner that

[a] POSITA would have understood that the profile information returned from the server for Device C includes its ID to enable [D]evice A to search for and recognize [D]evice C’s profile when [D]evice C responds with its ID to Device A’s “identification request” later and to directly message [D]evice C using its ID via the “local wireless protocol.”

Pet. Reply 2 (citing Pet. 22, 27–29, 33–35, 3940; Ex. 1003, Williams Decl. ¶¶ 87, 100–101, 113; Ex. 1005, 12:18–26, 13:32–34, 20:1–47, 20:56–21:6).

In consideration of the above, we agree with Petitioner that Mgrdechian discloses or would at least have suggested claim limitation [1.c] to a person of ordinary skill in the art.⁶

⁶ *See* Dec. to Inst. 17–18 (describing a person of ordinary skill in the art).

As Patent Owner discusses the “saved profile rationale” in relation to claim limitation 1.g, we address those arguments further in our discussion of claim limitation 1.g.

d) Claim Limitation [1.d]

The Petition identifies as claim limitation [1.d] the recitation “a mobile device for operating as the first wireless device and for receiving information related to the second wireless device or the entity associated with the second wireless device further comprising.” Pet. 35. Petitioner cites Mgrdechian as disclosing embodiments of wireless devices, e.g., Device A, that receive information associated with Device C may include mobile wireless devices. *Id.* at 35–36 (citing Ex. 1005, 8:1–4, 16:6–10, 20:1–47, 22:26–35, Fig. 8; Ex. 1003, Williams Decl. ¶¶ 114–116). Patent Owner does not respond explicitly to Petitioner’s arguments concerning claim limitation [1.d].

Based on the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses a system with the features recited in claim limitation [1.d].

e) Claim Limitation [1.e]

The Petition identifies as claim limitation [1.e] the recitation “a first radio for communicating with the server and receiving the first information including the second unique identifier.” Pet. 36. Petitioner cites Mgrdechian as disclosing that Device A sends a request to a web application on a server over a cellular network, and that wireless devices that include an antenna receive RF signals, e.g., device 1300 and RF circuitry 1302. *Id.* at 36–37 (citing Ex. 1005, 16:34–42, 21:65–22:12, Fig. 13; Ex. 1003, Williams

Decl. ¶¶ 117–119). Patent Owner does not respond explicitly to Petitioner’s arguments concerning claim limitation [1.e].

Based on the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses a system with the features recited in claim limitation [1.e].

f) Claim Limitation [1.f]

The Petition identifies as claim limitation [1.f] the recitation “a second radio for receiving proximity beacon transmissions utilizing a local or personal area wireless protocol, and for providing received proximity beacon information derived from the proximity beacon transmissions.” Pet. 37. Petitioner cites Mgrdechian as disclosing mobile wireless Device A receives Bluetooth transmissions from other Bluetooth devices within the effective range of the wireless protocol and that the Bluetooth radio in Device A receives beacon proximity information including the IDs of Bluetooth radio devices within range of Device A and provides that information to the computer system. *Id.* at 37–38 (citing Ex. 1005, 6:59–61, 9:56–10:8, 13:3–18, 15:44–16:2, 16:6–15, 19:34–39, 21:65–22:12, Fig. 13; Ex. 1003, Williams Decl. ¶¶ 90, 120–125). Patent Owner does not respond explicitly to Petitioner’s arguments concerning claim limitation [1.f].

Based on the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses a system with the features recited in claim limitation [1.f].

g) Claim Limitation [1.g]

The Petition identifies as claim limitation [1.g] the recitation “a mobile device data processor for receiving the proximity beacon information

from the second radio and performing an action function to detect the proximity of a device associated with the second unique identifier, wherein the action function compares the proximity beacon information with the second unique identifier to determine if the proximity beacon information corresponds to the second unique identifier to determine said proximity of the device associated with the second unique identifier.” Pet. 39. Petitioner cites Mgrdechian as disclosing the wireless devices, e.g., Device A, include a processor that stores profile information for one or more targets. *Id.* at 39–40 (citing Ex. 1005, 12:18–26). Petitioner references its discussion of Mgrdechian’s expanded range embodiment, in which Device B is within range of Device A and Device C is within range of Device B, but not within the range of initiating Device A, causing the server to send to Device A profile information for Device C. *Id.* at 39 (citing Pet. § IX.A.1; Ex. 1005, 12:18–26, 20:56–21:6). Noting that Device A has already saved Device C’s profile (and that, at a minimum, it would have been obvious for Device A to receive and store Device C’s ID), Petitioner states that when Device C later comes within range of Device A’s radio, Device A’s processor compares Device C’s ID to its saved profiles to determine if Device C’s profile is already stored. *Id.* As illustrative of how different forms of identification, such as user photos, may be used, Petitioner also refers to Mgrdechian’s “portable profile” embodiment in which device IDs and portions of profiles (“initial profile information,” such as texts or photos) are transmitted between the wireless devices without contacting the server. *Id.* at 40 (citing Ex. 1005, 15:44–6:2).

Patent Owner’s contentions concerning claim limitation [1.g] are tied closely to its contentions concerning claim limitation [1.c]. *See* PO Resp. 24–36. Patent Owner states that Petitioner’s argument concerning

claim limitation [1.g] “addresses the comparison itself, but also assumes that Device A has Device C’s identifier. As discussed above, that assumption is inaccurate.” *Id.* at 37. As discussed above, we find that Mgrdechian discloses the subject matter recited in claim limitation [1.c]. In its arguments concerning claim limitations [1.c] and [1.g], Patent Owner also contends that “Petitioner’s ‘reducing inquiries to the server’ rationale fails.” PO Resp. 37–40. Here, Patent Owner argues that Petitioner conflates different embodiments and keys on Petitioner’s reference to Mgrdechian’s disclosure of “Portable Profiles” as supporting its contention that it would have been at least obvious to save profile information locally in a device and determine whether the a profile of a proximate device is locally saved by comparing the device ID with the locally saved profiles. *Id.*; Pet. 39. Patent Owner argues that a person of ordinary skill would not have found it obvious to employ Mgrdechian’s Portable Profiles to compare a received ID with a locally saved profile to reduce server inquiries because “[the portable profiles] are sent from device to device, not from server to device, as would be required to be the claimed ‘second unique identifier.’” PO Resp. 38.

Responding that Patent Owner’s characterization of the Petition is inaccurate and irrelevant, Petitioner states that Mgrdechian’s Portable Profiles are not a separate embodiment, but a functionality that can be added to other embodiments. Pet. Reply 6. Petitioner further emphasizes that the Petition cites to the teachings under the “Portable Profile” heading to demonstrate that comparing device IDs to avoid redundant profile requests from the server is consistent with Mgrdechian’s stated goal of saving computer resources and its approach of narrowing the list of profiles to be retrieved from the server. *Id.* at 6–7 (citing Pet. 39; Ex. 1003, Williams Decl. ¶ 130) (emphasis omitted).

We agree with Petitioner. Mgrdechian discloses that in some embodiments, wireless devices may include initial profile information, pictures, or profile summaries (thumbnails) that queried devices may provide in addition to their device IDs directly to other wireless devices. Ex. 1005, 15:46–62. “[R]ather than automatically retrieving profile information for all device IDs within range, computing resources may be saved by narrowing the list to profiles of interest to be retrieved from the remote computer system.” *Id.* at 15:66–16:2. Thus, we find that Mgrdechian discloses or at a minimum suggests claim limitation [1.g] to a person of ordinary skill.

h) Conclusion as to Claim 1

Having considered all the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses all of the limitations recited in claim 1.

3. Claim 2

Claim 2 depends from claim 1 and recites “ wherein said proximity beacon transmissions are transmitted utilizing a local or personal area wireless protocol by the second wireless device and include information corresponding to the second unique identifier.” Petitioner cites Mgrdechian as disclosing that each wireless device, e.g., Device C, continuously or intermittently broadcasts its ID and other information using a local wireless protocol, such as the Bluetooth protocol, for detection by other proximate wireless devices. Pet. 42–44 (citing Ex. 1005, 6:59–61, 10:10–15, 15:44–60, Fig. 3A; Ex. 1003, Williams Decl. ¶¶ 131–133).

Patent Owner does not respond explicitly to Petitioner’s contentions concerning claim 2. Based on the evidence and arguments of record, we are

persuaded that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses the limitations recited in claim 2.

4. *Claim 3*

Claim 3 depends from claim 1 and recites “wherein the disclosure policy associated with the second unique identifier or associated with the account associated with the second entity allows for secure and fraud resistant application of policies for the disclosure of information and content.” Noting that the limitation recited in claim 3 recites an intended result, Petitioner contends that, to the extent claim 3 recites subject matter that further limits claim 1, Mgrdechian discloses this limitation in the form of “filter parameters” associated with a user’s account to limit access to that user’s profile information. Pet. 44 (citing Ex. 1005, 13:50–14:8). Petitioner notes that in Mgrdechian if, e.g., User A’s profile information does not satisfy User C’s filter parameters, User A does not receive User C’s profile, allowing for secure and fraud resistant application of policies for the disclosure of information and content. *Id.* at 44 (citing Ex. 1005, 5:1–3, 13:50–14:8, 16:60–17:10). Petitioner also contends that a person of ordinary skill would have understood that the disclosure of dynamic or pseudo-random IDs to retrieve the profile provides similar security benefits by preventing a malicious device from gaining access to such information by reusing a superseded ID. *Id.* at 44–45 (citing Ex. 1003, Williams Decl. ¶ 136).

Patent Owner does not respond explicitly to Petitioner’s contentions concerning claim 3. Based on the evidence and arguments of record, we are persuaded that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses the limitations recited in claim 3.

5. *Claim 4*

Claim 4 depends from claim 1 and recites “wherein the system or a component of the system causes the change of at least one unique identifier from time to time such that disclosure of the at least one unique identifier by one device to another does not compromise the identity of that device once the unique identifier has changed.” Petitioner cites Mgrdechian as disclosing a system that updates the unique device IDs dynamically so that disclosure of a device ID to another device does not compromise the identity of that device once the unique identifier has changed. Pet. 46 (citing Ex. 1005, 3:34–35, 5:1–3; Ex. 1003, Williams Decl. ¶¶ 137–138).

Noting that Mgrdechian discloses embodiments of devices that can include cases where the IDs are static, dynamic, or pseudo-random, Patent Owner contends that a person of ordinary skill would have understood only that the device identifiers could be defined dynamically, such as when first transmitted, not that these identifiers could change from time to time, as recited in claim 4. PO Resp. 41. According to Patent Owner, a person of ordinary skill would understand the reference to “pseudo-random” to indicate how a specific identifier is created, and that “this does not mean that the ID changes over time.” *Id.* Patent Owner further notes that for claim 1, from which claim 4 depends, Petitioner relied on Mgrdechian’s disclosure of Bluetooth IDs, which are static identifiers, as the claimed identifiers, and that this reliance “is in tension with Petitioner’s theory for dependent claim 4” because at that time Bluetooth identifiers were static. *Id.* at 42–44 (citing Ex. 2011, 89).⁷

⁷ 2004 Bluetooth Specification.

Petitioner argues that Patent Owner’s interpretation conflicts with the plain language of Mgrdechian, which refers to the IDs already assigned to the devices. Pet. Reply 10. We addressed a similar issue in our discussion of claim limitation [1.c]. See Section V.B.2.c. There we noted Petitioner’s argument that, contrary to Patent Owner’s assertions, neither the Petition nor Mgrdechian limits Device IDs to Bluetooth IDs. See also Pet. Reply 4 at fn. 2 (“Mgrdechian’s device identifier is not limited to a Bluetooth ID.” (citing, e.g., Ex. 1005, 3:34–35, 7:19–21, 8:5–14, 12:18–26, 16:16–19, 20:1–47)). We also noted that Patent Owner’s arguments stating that comparing a newly detected Device C ID might no longer match “acknowledges that the ID does match and will always match if the ID is ‘static’ and will continue to match until it is changed at a later time when the ID is ‘dynamic’ or ‘pseudo-random.’” *Id.*; see also Pet. Reply 7.

In consideration of the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses the limitations recited in claim 4.

6. *Claim 5*

Claim 5 depends from claim 1 and recites “wherein said the second radio is a Bluetooth radio and said second wireless device utilizes a Bluetooth transmitter to provide the proximity beacon transmissions.” Petitioner cites Mgrdechian as disclosing that the second radio is a Bluetooth radio and the second wireless device utilizes a Bluetooth transmitter to provide the proximity beacon transmissions. Pet. 46–47 (citing Ex. 1005, 16:6–15, 21:65–22:12, Fig. 8; Ex. 1003, Williams Decl. ¶¶ 139–142).

Patent Owner does not respond explicitly to Petitioner’s contentions concerning claim 5. In consideration of the evidence and arguments of

record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses the limitations recited in claim 5.

7. *Claim 6*

Claim 6 depends from claim 1 and recites “wherein upon the detection of the proximity of the second wireless device, the mobile device data processor utilizes the first radio to communicate with a second server to receive further information based upon the second unique identifier, and wherein said further information is based, at least in part, upon a stored state resulting from previous interactions between the entities associated with the first and second unique identifiers.” Petitioner cites Mgrdechian as disclosing Device A saving only some of the profile information for Device C as a summary profile. Pet. 48 (citing Ex. 1005, 12:18–26). Petitioner further cites Mgrdechian as disclosing that the user can select Device C’s summary profile to retrieve a complete profile from the backend system such as an Internet server. *Id.* (citing Ex. 1005, 20:56–21:6). According to Petitioner, Mgrdechian discloses the complete profile includes a list of friends (“a stored state”) that is based on previous interactions with other users, e.g., between users associated with Devices A and C, i.e., whether the two are friends. *Id.* (citing Ex. 1005, 11:25–34). Noting that Mgrdechian teaches “IDs that are uploaded to one or more central servers which then enable, authorize or facilitate information to be conveyed between the devices either directly or through one or more central servers,” Petitioner argues that the request for Device C’s complete profile (the stored state) “is received by and responded to” by a server different from the server sending the summary profile, or, at least, the use of a separate server to provide the complete profile would have been an obvious implementation. *Id.* at 48–49

(emphasis omitted) (citing Ex. 1005, 7:23–32, 10:48–61; Ex. 1003, Williams Decl. ¶¶ 143–148).

Patent Owner does not respond explicitly to Petitioner’s contentions concerning claim 6. In consideration of the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses the limitations recited in claim 6.

8. *Claim 7*

Claim 7 depends from claim 6 and recites “wherein said further information additionally comprises content relating to one or more of the following:

a current step of a multiple step electronic commerce transaction, wherein said current step is related to said stored state, or

a reward for participation in a loyalty program, wherein said reward is dependent upon said stored state, or

social network content wherein said social network content is dependent upon said stored state, wherein said stored state comprises a friends list associated with the entity associated with the second wireless device, and wherein said disclosure policy utilized in said step of comparing comprises the inclusion of an entity associated with the first wireless device being included in said friends list and resulting in access to the otherwise private social network content of the entity associated with the second wireless device.

The Petition cites Mgrdechian’s disclosure of a social networking application in which a target user (the user of Device C) shares a list of friends (the stored state) with an initiating user (the user of Device A).

Pet. 50. A list of mutual friends is constructed by comparing the profiles of the initiating and target users, such that “where a friends list is not otherwise public, Mgrdechian discloses sharing whether [D]evice C’s user considers [D]evice A’s user a friend only if [D]evice A and [D]evice C each include

one another as a friend on their respective ‘lists of friends.’” *Id.* (citing Ex. 1005, 11:25–48; Ex. 1003, Williams Decl. ¶ 152). Petitioner notes, in addition, that the profile information of Device C returned to Device A is only that information permitted to be returned by Device C’s filter parameters. *Id.* at 50–51. Accordingly, where Device C’s filter parameters designate its friends list as not public for users not on its friends list, whether Device C considers Device A’s user a friend would be shared with Device A only if the user of Device A is included in Device C’s list of friends. *Id.* (citing Ex. 1005, 11: 23–48, 13:50–14:8, 16:60–17:10; Ex. 1003, Williams Decl. ¶ 152). In addition, Petitioner further argues that it would at least have been obvious to filter on the basis of a list of friends to block out undesired messages. *Id.* at 51 (citing Ex. 1005, 17:62–18:5; Ex. 1003, Williams Decl. ¶¶ 149–153).

Patent Owner does not respond explicitly to Petitioner’s contentions concerning claim 7. In consideration of the evidence and arguments of record, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses the limitations recited in claim 7.

9. Claim 8

Claim 8 depends from claim 2 and recites “where the proximity beacons transmitted by the second wireless device comprise a MAC address and the second unique identifier.” Thus, claim 8 recites that proximity beacons transmitted over a local or personal area wireless protocol by the second wireless device include information corresponding to the second unique identifier (claim 2), which is associated with the second wireless device or a second entity associated with the second wireless device (claim 1) and that these proximity beacons comprise a MAC address and the second unique identifier (claim 8).

Petitioner cites Mgrdechian's disclosure that Device C transmits "'its ID and/or other' 'initial profile information' in the same message." Pet. 52 (citing Ex. 1005, 6:59–61, 15:55–62). Petitioner also cites Mgrdechian as disclosing that a device may have a unique ID assigned in the manufacturing process, and that this includes the known concept of a MAC address. *Id.* at 52–53 (citing Ex. 1005, 15:55–62, 16:16–33; Ex. 1003, Williams Decl. ¶¶ 82, 157). Petitioner contends that, at a minimum, it would have been obvious to a person of ordinary skill to send a MAC address as part of the initial profile information as an additional form of identification (in addition to the Bluetooth ID). *Id.* (citing Ex. 1003, Williams Decl. ¶¶ 83, 158).

Patent Owner emphasizes that claim 8 "is about what Device C sends to Device A when it hypothetically comes into proximity (after its profile has been sent to Device A by the server already)." PO Sur-reply 13. According to Patent Owner, "[t]here is no indication that 'initial profile information' includes an alternative or additional device ID, much less a MAC address." *Id.* at 13–14 (citing Ex. 1005, 15:44–16:2). Patent Owner contends that Petitioner's argument is flawed and that Petitioner's reliance on Bluetooth IDs is redundant because, at the time of Mgrdechian, the Bluetooth ID and the MAC address were one and the same. PO Resp. 45–47 (citing Ex. 2011, 89).

Petitioner points out that Patent Owner concedes modes of direct communication taught by Mgrdechian are not limited to the Bluetooth. Pet. Reply 13 (citing PO Resp. 33–34). Petitioner further notes that Mgrdechian discloses "the response to the inquiry for an ID may be done [via the same wireless protocol as the inquiry] or via a different wireless protocol as the inquiry." *Id.* (citing Ex. 1005, 4:65–5:1; Ex. 1003, Williams Decl. ¶ 83).

As discussed further in Section V.F, we credit the testimony of Petitioner’s expert, David Williams, that a person of ordinary skill would have understood that “[e]ach wireless protocol requires use of the device identifier that is specific to that protocol and that different wireless protocols have different capabilities, (e.g., speed, range, energy consumption)” (Ex. 1003, Williams Decl. ¶ 83 (citing Ex. 1015 ¶¶ 103, 122)) for the proposition that it was well known for a user to control how many and which unique IDs are transmitted by his device via a short range RF transmission and that Bluetooth Device Addresses, WLAN MAC addresses, and other types of unique IDs may be used by the server. As Mgrdechian discloses a different wireless protocol may be used to respond to an inquiry, we find that a person of ordinary skill would have understood that multiple identifiers would be included in the initial profile information to facilitate communication between the devices using a protocol different from the inquiry protocol. *See* Ex. 1003, Williams Decl. ¶ 83. Thus, we find that Mgrdechian would have suggested the limitations of claim 8 to a person of ordinary skill in the art.⁸

10. Conclusion

In consideration of the above, we find that Petitioner has demonstrated by a preponderance of the evidence that Mgrdechian discloses all the limitations of claims 1–7 to a person of ordinary skill in the art. We further find that Petitioner has demonstrated by a preponderance of the

⁸ Although paragraph 83 of Mr. Williams Declaration cites to Behrens, we do not rely on Behrens for this ground. Instead, we credit Mr. Williams’s testimony as evidence of what a person of ordinary skill would have known at the time.

evidence that Mgrdechian would have suggested all the limitations of claims 1–8 to a person of ordinary skill.

C. Claims 1–8 as Obvious Over Mgrdechian in view of Kaplan (Ground 3)

Petitioner argues that, to the extent Patent Owner contends additional disclosure is required of two separate Bluetooth and cellular radios in claim limitations [1.e] and [1.f] and the requirement of comparing information received via local wireless protocol with information received from the server in claim limitation [1.g], these features are disclosed by Kaplan. Pet. 53–60.

Kaplan discloses:

a communication system that enables automated retrieval of caller ID picture information and association with contact information . . . The communication system has a wireless Device Communicating with a picture server. The wireless device receives an incoming call with caller ID information, and determines if a picture is locally stored for the caller. If no picture is locally stored for the caller, then a request is made to retrieve a picture from the picture server. If the picture server has the requested picture, and the wireless device is authorized to receive the picture, then the picture is downloaded to the wireless device, where the picture is associated with contact information for the caller. The picture of the caller will then be automatically displayed when the caller places future calls.

Ex. 1024, 2:16–31. Petitioner cites Kaplan as disclosing that device-to-device communication includes a device that receives contact information directly from another telecommunication device using a processor to check whether the caller ID contact information exists in locally stored contact information previously received from the server and whether there is a locally stored picture associated with the locally stored contact information. Pet. 55–56 (citing Ex. 1024, 3:58–4:8, 11:40–12:12, Fig. 4).

Petitioner argues that a person of ordinary skill would have understood Mgrdechian to disclose each wireless device has separate cellular and Bluetooth radios to communicate with the server and each other, and that Kaplan discloses “the well-known implementation choice of including separate radios to communicate over the ‘cellular network’ and ‘Bluetooth’ protocols.” Pet. 57 (citing Ex. 1024, 6:37–58, 6:12–28; Ex. 1003, Williams Decl. ¶ 169). As to claim limitations [1.e] and [1.f], Petitioner contends that to a person of ordinary skill, applying Kaplan’s teachings using first and second radios for cellular and Bluetooth transmissions would have been an obvious design choice “predictably yield[ing] a standard cell phone capable of communicating via cellular and Bluetooth protocols.” *Id.* (citing Ex. 1003, Williams Decl. ¶ 170).

As to claim limitation [1.g], Petitioner contends a person of ordinary skill

would have been motivated to apply Kaplan’s teaching of searching for a new ID in locally stored information before requesting the information from a server in implementing Mgrdechian’s wireless device to advantageously achieve a goal described in Mgrdechian: saving computing resources by requesting only profiles not already saved to the device. Pet. 58 (emphasis omitted) (citing Ex. 1005, 12:18–26, 20:56–21:6, Fig. 11; Ex. 1003, Williams Decl. ¶¶ 171–172). Noting that Kaplan is in the same field as the subject matter of the ’164 patent and is pertinent to the problem identified in the ’164 patent as the lack of an independent third party to facilitate services required for secure proximity based mobile electronic transaction, Petitioner contends that (i) for a person of ordinary skill, it would have been routine, straightforward, and advantageous to apply Kaplan’s teaching of checking a local cache for information associated with

a received device identifier before querying a server in implementing Mgrdechian’s teachings of receiving device identifiers and storing “saved profiles,” and (ii) a person of ordinary skill would have known that such a combination (yielding the claimed limitations) would work predictably and provide the expected functionality. *Id.* at 56–57, 59–60 (citing Ex. 1024, 4:9–37, 7:7–15, 12:26–48, claim 1; Ex. 1003, Williams Decl. ¶¶ 167–168, 184).

According to Patent Owner, “Kaplan is a caller ID system that has nothing to do with the claimed comparison.” PO Sur-reply 14. Noting that Kaplan is directed to a photographic caller ID system that automatically requests a picture retrieval from a picture server if one is not locally stored, Patent Owner contends that a person of ordinary skill would not combine Kaplan with Mgrdechian in which the wireless device solicits replies from adjacent devices and receives portable profile information (pictures) in response to the solicitation. PO Resp. 48–49. Petitioner emphasizes that it relies on Kaplan only for its teaching of a device processor for comparing information from another device to locally stored information to determine whether additional information is needed. Pet. Reply 14–15. Patent Owner contends “checking to see whether a caller ID picture is stored locally before requesting it from a server” is not what is missing in Mgrdechian with respect to Element 1g.” PO Sur-reply 15 (citing Pet. 55–56, 58–59; Reply 14; PO Resp. 24–40). We previously addressed the arguments Patent Owner presents concerning Mgrdechian at pages 24–40 of the Patent Owner Response. *See* Sections V.B.1–2. We find that Petitioner has demonstrated that Kaplan discloses a processor that performs the claimed comparison function and that a person of ordinary skill would have had reason to apply Kaplan’s teaching to Mgrdechian.

Neither party presents any further arguments concerning claims 1–8 under this ground. Having determined that Petitioner has demonstrated Kaplan discloses the features of claim limitations [1.e], [1.f], and [1.g] and that Mgrdechian discloses or would have suggested the remaining features of claim 1–8 to a person of ordinary skill, we find that Petitioner has demonstrated that the combined teachings of Mgrdechian and Kaplan disclose or suggest all of the limitations of claims 1–8.

D. Claims 3 and 4 as Obvious Over Mgrdechian in view of Kulakowski (Ground 4) and in Further View of Kaplan (Ground 5)

Kulakowski recognizes that pirates attempt to steal services by creating multiple clients with credential identical to a valid client. Ex. 1013 ¶ 13. Kulakowski discloses a method for detecting a cloned client device by receiving at the server a client device message that includes a covert identifier generated from one or more difficult to detect operational events unique to the client, and comparing the covert identifier at the server to that received from the client to identify non-matching clones. *Id.* ¶¶ 6–8. “The covert identifier may be a token or value provided by the server, or may be a combination of client and server generated covert values.” *Id.* ¶ 8. For example, the covert identifier may be based on the time when a predetermined operational event occurs or the number of times such an event occurs, the channel the client was tuned to at a particular time, or a token sent to the client device from the server. *Id.* ¶ 8. “A covert data value may comprise data received in a message from the server and used in a subsequent message to the server. This value may be updated by the server at each subsequent communication.” *Id.* ¶9.

Petitioner argues that, to the extent Patent Owner contends that further disclosure beyond Mgrdechian’s teaching of dynamic and pseudo-random

identifiers is required for claims 3 and 4, that feature is disclosed by Kulakowski. Pet. 60. Noting that Mgrdechian concerns wireless communications systems and discloses device IDs that are dynamic, Petitioner cites Kulakowski as teaching the implementation detail of a covert identifier generated for the client device that can be changed (updated) over time and stored by the client device and server to discourage fraud, spoofing, and hacking. *Id.* at 60–63 (citing Ex. 1013 ¶¶ 8, 78, 83; Ex. 1003, Williams Decl. ¶ 186). According to Petitioner a person of ordinary skill would have been motivated to apply Kulakowski’s techniques for changing identifiers to Mgrdechian’s dynamic device identifiers to implement additional security in wireless communication systems in a manner that would have been routine and straightforward. Pet. 62–64.

Patent Owner cites IPR2020-00978 as concluding that Petitioner failed to demonstrate why it would have been obvious to use Kulakowski’s covert identifier teaching to enhance security in Mgrdechian by transmitting the covert identifier to another client device. PO Resp. 51–52 (citing Ex. 2018, 19–20). Patent Owner argues that Petitioner’s reliance on Kulakowski’s covert identifier teachings in this proceeding also is flawed, as Petitioner’s theory is based on a single vague phrase in Mgrdechian that provides no description of dynamic or pseudo-random embodiments. *Id.* at 52–53 (citing Ex. 1005, 5:1–3). Patent Owner further contends that Kulakowski’s covert identifier differs from Mgrdechian’s ID because Kulakowski does not teach a device may be identified based only on the covert identifier; instead, Kulakowski’s covert identifier accompanies the identification information, so that the server may distinguish an authentic device from a cloned device. *Id.* at 53–54 (citing Ex. 1013 ¶ 88 (“The server then determines whether more than one response has been received with the

same client identifier but different covert data (step 185).” (emphasis omitted))). Noting Petitioner’s discussion of claim limitation [1.b] concerning comparing the disclosure policy to a first unique identifier associated with the first wireless device or other data associated with an account associated with the first wireless device, Patent Owner contends that Petitioner has not explained why a person of ordinary skill would have been motivated to modify Mgrdechian’s identifiers upon which Petitioner relies. *Id.* at 54–55 (citing Pet. 30, Ex. 1005, 16:29–33; Ex. 2010 ¶ 87). Patent Owner further contends that because Kulakowski addresses messages sent between a client and a server, not identifiers passed between client devices, as in Mgrdechian, Kulakowski does not contemplate an intermediate device, such as the first wireless device in the challenged claims, collecting an identifier from another device and providing that identifier to a server. *Id.* at 54–55. According to Patent Owner “broadcasting Kulakowski’s ‘covert identifier’ in a way that could be intercepted by other client devices would defeat the purpose of Kulakowski.” *Id.* at 55.

We are not persuaded by Petitioner’s arguments, which rely on Kulakowski’s teachings of using “*covert*, changing identifiers” in order to “advantageously improve security and detect spoofed or ‘cloned’ client wireless devices.” Pet. 63 (emphasis added). Kulakowski discloses a security method in which a device sends a message to a server, the message having embedded therein a covert identifier. Ex. 1013 ¶¶ 6, 37. The server extracts the covert identifier upon receiving the message and compares the extracted covert identifier with stored values corresponding to the client credentials to determine if the device is an authentic device or a cloned device. *Id.* ¶ 48. “The covert identifier is generated by operational events occurring during actual operation of a client device. . . . The covert data

therefore provides a unique identifier for a particular client device which is stored by the client device and subsequently used in messages to a server.”

Id. ¶ 15. “Such values are covert because their nature makes them difficult for hackers to detect and duplicate in cloned client devices” *Id.* ¶ 34.

Thus, Kulakowski teaches that its “covert identifiers” are covert and provide added security because they are known only to the particular device and the server. Neither Petitioner nor Petitioner’s declarant explains adequately why it would have been obvious to use this covert teaching to enhance the security of Mgrdechian’s system by transmitting the covert identifier to another client device. We agree with Patent Owner that, by transmitting the identifier to other devices, the modification proposed by Petitioner “creates the very risk Kulakowski is trying to prevent.” PO Resp. 55. By transmitting this information to devices sending an identification request (*see, e.g.*, Ex. 1005, 10:38–47), the information would no longer be “covert,” and the Petition does not explain adequately how this information would “improve security and detect spoofed or ‘cloned’ client wireless devices.” *See* Pet. 62.

For the foregoing reasons, on this record, Petitioner has not shown, by a preponderance of the evidence, that claims 3 and 4 are unpatentable over the proposed combinations including Mgrdechian and Kulakowski.

E. Claim 7 as Obvious Over Mgrdechian in view of Eagle (Ground 6) and in Further View of Kaplan (Ground 7)

Petitioner asserts that to the extent Patent Owner argues that further disclosure beyond Mgrdechian’s teaching of filtering profile information based on a list of friends is required for claim 7, that feature is rendered obvious in further view of Eagle. Pet. 65–68. Petitioner cites Eagle as teaching a system in which portable electronic devices detect other devices

and exchange identifying information using a Bluetooth protocol, and in which information received by an initiating device (the first wireless device) from a target device (a second wireless device) is transmitted to a server over a long range cellular phone network. *Id.* at 66 (citing Ex. 1004 ¶¶ 4, 39). Petitioner notes that Eagle’s server provides the initiating device access to the private “friend of friends” content based on the target device’s list of friends, specifically when an initiating device is listed in the target device’s profile as corresponding to a device owned by a friend. *Id.* (citing Ex. 1004 ¶¶ 56, 66; Ex. 1003, Williams Decl. ¶¶ 200–201). Noting that, like Mgrdechian, Eagle concerns wireless communication systems and is pertinent to the lack of an independent third party to facilitate services required for secure proximity based mobile electronic transaction, Petitioner argues that Eagle expressly discloses that the server uses the friends list in each device’s profile data to define a “trust network,” such that filter parameters prevent disclosure of profile data to devices that are not in the trust network. *Id.* at 66–67 (citing Ex. 1004 ¶¶ 9, 56, 60, 63, 65–67). Petitioner notes that Mgrdechian’s disclosure policy allows sharing Device C’s profile information including its list of friends with Device A only if Device A’s user is included in Device C’s user’s friends list. *Id.* at 68 (citing Ex. 1005 11:33–34; Ex. 1003, Williams Decl. ¶ 205). According to Petitioner, it would have been routine and straightforward for a person of ordinary skill to apply Eagle’s known teachings of disclosing information only to users within a trust network in implementing Mgrdechian’s teachings of filter parameters that limit disclosure of non-public information. *Id.*

Noting the claim 7 depends from claim 6, and that claim 6 recites the mobile device data processor utilizes the first radio to communicate with a second server to receive further information based on the second identifier,

Patent Owner argues that neither Mgrdechian nor Eagle discloses this feature. PO Resp. 58. As we noted in our discussion of claim 6, Patent Owner did not respond explicitly to Petitioner's arguments concerning claim 6 as anticipated by or obvious over Mgrdechian, and we found that Petitioner had demonstrated Mgrdechian disclosed the limitations of claim 6. *See* Section V.B.7. Patent Owner now argues that in Mgrdechian's peer-to-peer discovery phase, Device A obtains the Bluetooth ID of Device B and passes it to the remote computer, but would not have enough information to access a second server to determine if Device B is in its social network friends list because only the remote computer can look up the Bluetooth ID of Device B. PO Resp. 58–59. Patent Owner also contends that in Mgrdechian's multi-hop discovery embodiments, Device A would not have received Device C's Bluetooth ID. *Id.* at 59. We have already declined to adopt Patent Owner's position on this second argument. *See* Sections V.B.2.c and V.B.2.g. Patent Owner also argues that Eagle's stored state teaches facilitating interactions with newly detected devices, not previously detected ones. PO Resp. 59–64.

Petitioner notes that claim 6 requires only that the first wireless device communicate with the second server, arguing that claim 6 does not require that the first wireless device initiate the communication. Pet. Reply 19–20. Petitioner further notes that even applying Patent Owner's construction of claim 6, Mgrdechian discloses that Device A initiates communication with the second server to retrieve Device C's complete profile information, including its list of friends. *Id.* at 20 (citing Pet. 48–49; Ex. 1005, 7:23–32, 11:25–34, 12:18–26, 20:56–21:6). Petitioner further comments that patent Owner's argument that Device A cannot retrieve the complete profile without Device C's ID further confirms Petitioner's earlier arguments that

Device A does indeed have Device C's ID. *Id.* We agree with Petitioner. *See, e.g.,* Ex. 1005, 20:56–21:6 (“a user may scan profiles in the vicinity . . . [and] select the profile to view the complete profile”).

As to the “stored state” recited in claim 6, Petitioner relies on Mgrdechian, not Eagle, to disclose this limitation. Pet. Reply 20–21 (citing Pet. 48, 50–51, 67–68; Ex. 1005, 11:23–48); *see also* Section V.B.2.7. “[T]he Petition relies on Eagle for its teaching that the server uses the friends list in each device’s ‘profile data’ to define a ‘trust network,’ such that the filter parameters prevent disclosure of profile data to devices that are not in the trust network.” Pet. 20 (citing Ex. 1004 ¶¶ 56, 66; Pet. 66–67; Ex. 1003, Williams Decl. ¶¶ 200–202). “In applying these teachings, Mgrdechian’s disclosure policy allows sharing [D]evice C’s profile information including its ‘list of friends’ with [D]evice A only if [D]evice A’s user is included in the friends list of [D]evice C’s user.” *Id.* at 20–21 (citing Pet. 67–68; Ex. 1005, 11:33–34; Ex. 1003, Williams Decl. ¶ 205). Petitioner further notes that Eagle’s “friend of friends” content is based on previous interactions between entities, as required by claim 6, rather than devices. *Id.* at 21 (citing Ex. 1004 ¶¶ 55, 66; Ex. 1003, Williams Decl. ¶¶ 200–201). We agree with Petitioner. Eagle teaches the profile data of each user includes a list of IDs owned by friends or otherwise identified as trusted persons, e.g., by inclusion in a trust network further populated with friends of friends, and that alert messages are only sent to such trusted persons with common interests. Ex. 1004 ¶¶ 56, 66–67.

Thus, we find that Petitioner has demonstrated by a preponderance of the evidence that the combined teachings of Mgrdechian and Eagle would have disclosed or suggested the limitations of claim 7 to a person of ordinary skill in the art.

Patent Owner argues that Petitioner does not explain why a person of ordinary skill would have combined the teachings of Mgrdechian and Eagle with those of Kaplan. PO Resp. 65. Petitioner points to its discussion at pages 56–60 and 66–68 of the Petition. Pet. Reply 22. We address the combined teachings of Mgrdechian and Kaplan above (*see* Section V.C) as disclosing the claimed comparison. As Eagle is directed to identifying when and with whom profile information may be shared and Petitioner relies on Mgrdechian to disclose that the server performs a comparison step as taught by Mgrdechian alone or when combined with the teachings of Kaplan, we find that a person of ordinary skill would have been motivated to combine the teachings Mgrdechian, Eagle, and Kaplan to arrive at the same result as the combined teachings of Mgrdechian and Eagle.

F. Claim 8 as Obvious Over Mgrdechian in view of Behrens (Ground 8) and In Further View of Kaplan (Ground 9)

Petitioner asserts that to the extent Patent Owner argues that disclosure beyond Mgrdechian’s teaching each communication device provided with a unique ID in the manufacturing process is required for claim 8, that feature is rendered obvious in further view of Behrens. Pet. 68–70. Petitioner cites Behrens as disclosing a wireless communication system for detecting proximate wireless devices and communicating with a remote server, such that contact is automatically established between users who come into proximity and identify themselves by transmitting at least one unique identifier (UID) over a short range wireless protocol. *Id.* at 68–69 (citing Ex. 1024, code (57), ¶¶ 1, 160, Fig. 2). Petitioner notes that Behrens discloses a device may have a combination of UIDs such as the device’s Bluetooth Device Address or WLAN MAC address and that the user may exercise control over which or how many UIDs are transmitted by his

device. *Id.* at 69 (citing Ex. 1015 ¶¶ 61, 103, 115, 122, claims 7–9; Ex. 1003, Williams Decl. ¶¶ 206–208). Petitioner argues a person of ordinary skill would have been motivated to apply Behrens’s teachings of the device sending multiple or changing UIDs to another device in implementing Mgrdechian’s wireless device IDs to provide simultaneous transmission of multiple device identifiers, including a conventional MAC address, to provide “multiple options for contacting the second wireless device at a later time, a goal taught by Mgrdechian.” *Id.* (citing Ex. 1005, 6:59–61, 16:16–33; Ex. 1015 ¶¶ 97, 115; Ex. 1003, Williams Decl. ¶¶ 209–211). According to Petitioner, incorporating Behrens’s teachings into Mgrdechian would have been a straightforward application that predictably would work and provide the expected functionality. *Id.* at 70 (citing Ex. 1003, Williams Decl. ¶ 214).

Patent Owner argues that a person of ordinary skill would not have been motivated to modify Mgrdechian to simultaneously transmit Bluetooth IDs and another form of ID during Bluetooth discovery because “the express purpose of Mgrdechian is to keep user profile information private until it can be determined if profile information passes the filters” and Petitioner’s proposed modification of Mgrdechian “would circumvent the remote computer filtering process.” PO Resp. 67. Petitioner disputes Patent Owner’s assertions that simultaneous transmission of Bluetooth and other IDs would circumvent the remote computer filtering process and notes that Mgrdechian does not limit the number of IDs that devices can send to one another. Pet. Reply 23 (citing Ex. 1005, 3:13–25, “receiving in the first wireless device *one or more wireless device identifications associated with one or more other wireless devices*”). Patent Owner responds that Petitioner offers no support for its interpretation of this disclosure in Mgrdechian as

indicating that one wireless device may send multiple device identifiers. PO Sur-reply 24. Patent Owner emphasizes that its argument opposing Petitioner's modification of Mgrdechian by Behrens is that "providing additional identifiers from the outset, for the express purpose of allowing the devices to contact each other before filtering, would result in devices being able to contact each other 'at a later time' without first waiting to see if the devices 'pass' filtering." *Id.* at 25 (emphasis omitted) (citing PO Resp. 67).

We addressed Patent Owner's arguments concerning claim 8 and Mgrdechian above, including Patent Owner's argument concerning other forms of communication after filtering, e.g., e-mail and text. *See* Section V.B.9. Although Patent Owner correctly states that the Petition refers to the advantages of simultaneous transmission of different UIDs (Pet. 69; PO Resp. 69), claim 8 does not require such simultaneous transmission, nor do the references preclude it (Pet. Reply 24–25, citing paragraph 97 of Behrens as disclosing simultaneous transmission of multiple device IDs). We further note that the Petition does not propose modifying Mgrdechian for the purpose of by-passing the filter, but to allow contact with a second wireless device at a later time, e.g., where that device uses a different wireless protocol. Pet. 69–70. As Petitioner points out, Behrens discloses a device may have a combination of UIDs. *Id.* (citing Ex. 1015 ¶¶ 61, 103, 115, 122; Ex. 1003, Williams Decl. ¶¶ 206–208).

In consideration of the above, we find that Petitioner has demonstrated by a preponderance of the evidence that a person of ordinary skill would have had reason to combine the teachings of Mgrdechian and Behrens and that these combined teachings would have disclosed or suggested the limitations of claim 8 to a person of ordinary skill.

Patent Owner argues that Petitioner does not explain why a person of ordinary skill would have combined the teachings of Mgrdechian and Eagle with those of Kaplan. PO Resp. 70. Petitioner cites its discussion on pages 56–60 and 69–70 of the Petition. Pet. Reply 25. We address the combined teachings of Mgrdechian and Kaplan above (*see* Section V.C) as disclosing the claimed comparison. As Behrens is directed to providing multiple device identifiers and Petitioner relies on Mgrdechian to disclose that the server performs a comparison step as taught by Mgrdechian alone or when combined with the teachings of Kaplan, we find that a person of ordinary skill would have been motivated to combine the teachings Mgrdechian, Behrens, and Kaplan to arrive at the same result as the combined teachings of Mgrdechian and Behrens.

VI. CONCLUSION⁹

Having considered the evidence and arguments of record, we conclude that Petitioner has demonstrated by a preponderance of the evidence that all the challenged claims are unpatentable.

VII. ORDER

In consideration of the above it is:

ORDERED that claims 1–8 are unpatentable; and

⁹ 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).

FURTHER ORDERED that that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

In summary:

Claims	35 U.S.C. §	Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1-7	102	Mgrdechian	1-7	
1-8	103	Mgrdechian	1-8	
1-8	103	Mgrdechian, Kaplan	1-8	
3, 4	103	Mgrdechian Kulakowski		3, 4
3, 4	103	Mgrdechian, Kulakowski, Kaplan		3, 4
7	103	Mgrdechian, Eagle	7	
7	103	Mgrdechian, Eagle, Kaplan	7	
8	103	Mgrdechian, Behrens	8	
8	103	Mgrdechian, Behrens, Kaplan	8	
Overall Outcome			1-8	

IPR2020-00979
Patent 9,161,164 B2

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