

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TARGET CORPORATION,

Petitioner,

v.

PROXICOM WIRELESS, LLC,

Patent Owner.

Case IPR2020-00980

U.S. Patent No. 8,385,913

PETITION FOR *INTER PARTES* REVIEW

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Pursuant to §§311-319 and §42,¹ Target Corporation (“Petitioner”) petitions for *inter partes* review (“IPR”) of claims 1-4, 6-10, 12, 15, 17, 19, 21, 32-34, and 39 (“Challenged Claims”) of U.S. Patent 8,385,913 (“’913”) (Ex. 1001), assigned to Proxicom Wireless, LLC (“PO”) according to USPTO records. There is a reasonable likelihood that at least one challenged claim is unpatentable as explained herein. Petitioner requests review of the Challenged Claims, and judgment finding them unpatentable under §102 and/or §103.

I. INTRODUCTION

The ’913’s purported invention is the use of a “central server” to “facilitat[e] the exchange of information and transactions between two entities associated with two wireless devices.” ’913, Abstract. In particular, the wireless devices directly exchange identifiers with each other, and, based on the identifiers, the server “broker[s] the exchange of information between the entities and the devices.” *Id.*, Abstract, 2:13-22. Williams ¶¶1-2, 39.

The ’913 admits that, prior to the alleged invention, wireless devices already were configured to use third party devices to facilitate electronic transactions,

¹ Section cites are to 35 U.S.C. or 37 C.F.R. as context indicates. All emphasis/annotations have been added unless noted. Annotations added to the figures herein generally quote the language of the Challenged Claims for reference.

including transactions conducted via the Internet. *Id.*, 1:54-66 (admitting “mobile electronic commerce has mostly allowed users to perform transaction with a remote party, such as purchasing an item on ebay (www.ebay.com)”). And the ’913 admits that prior art systems already were using short range wireless communication such as “IEEE802.11 (Wi-Fi) or Bluetooth” to communicate directly between wireless devices. *Id.*, 2:23-26. Williams ¶¶5, 7, 40-42, 58.

The only purportedly novel element of the ’913 claims is the concept of a wireless device refraining from requesting information already available and stored on the device. For example, independent claims 1 and 7 recite the step of “suppressing” a request to a server when a later-received device identifier matches an earlier-received device identifier or matches information previously received from the server. Ex. 1002, 536. But, as discussed herein, it was already well-known to suppress sending requests for requests already send or for information already stored on a wireless device. Williams ¶¶43-56, 87.

For example, **Mgrdechian** (Ex. 1005) discloses a known system for using a server to facilitate communications between portable communication devices. *E.g.*, Mgrdechian, 1:32-35, 5:4-7. As further discussed in §IX below, a first wireless device uses Bluetooth to receive identifying information from a second wireless device and transmits that identifying information to a server using a long-range communication network. *Id.* 3:14-24, 5:4-7, 10:10-15. The server then “send[s]

“profile information associated with” the second wireless device and a third wireless device in the vicinity to the first wireless device. *Mgrdechian*, 12:18-26. Then, the first wireless device receives a device identifier from the third wireless device. *Id.*, 10:38-47, 20:1-47, Figs. 3A, 10. Because the first wireless device has already received the third wireless device’s profile information and stored it locally, it does not send the device identifier of the third wireless device to the server. *Id.*, 12:18-26, 15:44-16:2. **Mgrdechian** further discloses that the exchange of information between devices through the server includes “micropayments” or other “electronic commerce applications.” *Id.* 15:11-15. Williams ¶¶49, 79-80, 86-87.

Thus, and as further explained below, **Mgrdechian** anticipates all Challenged Claims and at minimum renders all the Challenged Claims obvious. Williams ¶¶75, 96-190.

To the extent it is argued that further disclosure is required beyond **Mgrdechian** as to the independent claims, **Kaplan**, **Gujar** and **Kulakowski** make express what a POSITA would have also understood from and would have been obvious to apply in implementing *Mgrdechian*’s teachings. **Kaplan** (Ex. 1024) teaches implementation details such as comparing incoming identifiers with stored information from a server (*see* §IX.B). **Gujar** (Ex. 1014) teaches implementation details for comparing newly received identifiers to previously received identifiers to suppress the sending of redundant requests (*see* §IX.C). And, with respect to claims

2 and 8, **Kulakowski** (Ex. 1013) discloses implementation details regarding changing the identifiers of devices used in electronic commerce transactions to guard against cloning, which would have been obvious to apply in implementing **Mgrdechian's** dynamic device identifiers (*see* §IX.D). Williams ¶¶191-216.

As demonstrated herein, the prior art anticipates, and at minimum renders obvious, the Challenged Claims. The claimed elements and the claimed arrangement of elements were anticipated by **Mgrdechian** and/or rendered obvious by **Mgrdechian** alone or in view of **Kaplan, Gujar, or Kulakowski**. At best, the Challenged Claims of the '913 are directed to an obvious combination of prior art elements combined according to known methods to yield predictable results, and the combination amounts to nothing more than a predictable use of prior art elements according to their established functions.

The USPTO did not apply **Mgrdechian, Kaplan, Gujar, or Kulakowski**, or any other reference providing analogous disclosures during prosecution of the '913. Had such references been considered previously, the Challenged Claims would have been found unpatentable.

As explained in greater detail herein, all the features of the Challenged Claims were known well before the earliest possible priority date of the '913, and the purported invention is anticipated by the prior art and at most no more than an obvious combination of prior art elements combined according to known methods

to yield predictable results. Petitioner requests that the Board institute trial and find the Challenged Claims unpatentable.

II. MANDATORY NOTICES (§42.8)

A. Real Party-In-Interest

Target Corporation is the real party-in-interest. No other party had access to or control over the present Petition, and no other party funded or participated in preparation of the present Petition. Proxicom asserts in the litigation that Petitioner infringes the '913 by utilizing instrumentalities provided at least in part by Acuity Brands (“Acuity”), but Acuity is not funding, controlling, directing, or otherwise involved in this petition or proceeding, nor has it been in the past.

B. Related Matters

Proxicom Wireless, LLC v. Target Corporation, No. 6:19-cv-1886-Orl-37LRH (M.D. Fla.) (pending).

The following table lists matters regarding related patents:

Patent No.	IPR
9,038,129	IPR2020-00903
7,936,736	IPR2020-00904
8,090,359	IPR2020-00931
	IPR2020-00932
8,374,592	IPR2020-00933

8,385,896	IPR2020-00934
8,369,842	IPR2020-00977
8,116,749	IPR2020-00978
9,161,164	IPR2020-00979

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Petitioner consents to electronic service of documents to the email addresses of the counsel identified above.

III. PAYMENT OF FEES

The undersigned authorizes the Office to charge the fee required by §42.15(a) and any additional fees to Deposit Account No. 18-1945, under Order No. 001008-0037-655.

IV. REQUIREMENTS FOR INTER PARTES REVIEW

A. Grounds for Standing

Pursuant to §42.104(a), Petitioner certifies that the '913 is available for IPR. Petitioner is not barred or estopped from requesting IPR challenging the claims of the '913 on the grounds identified herein.

B. Identification of Challenge

Pursuant to §42.104(b), Petitioner requests IPR of '913 claims 1-4, 6-10, 12, 15, 17, 19, 21, 32-34, and 39, and that the Board cancel the same as unpatentable. The '913 matured from U.S. Application 12/364,819 (filed 02/03/2009), and claims priority to U.S. Provisional Applications 61/095,359 (filed 9/9/2008) and 61/095,001 (filed 9/8/2008).² Williams ¶¶4, 73-74.

² Petitioner takes no position as to, and reserves its right to challenge, the propriety of the priority claims because the art presented herein predates the earliest possible filing of the '913 patent.

1. The Specific Art on Which the Challenge is Based

Petitioner relies upon the following prior art:

Name	Exhibit	Patent / Publication	Filed	Issued / Published	Prior art under at least
Mgrdechian³	1005	U.S. 7,545,784	2/10/2005	6/9/2009	§102(e)
Kaplan	1024	U.S. 8,295,819	12/19/2005	10/23/2012	§102(e)
Gujar	1014	U.S. 6,446,208	9/10/1998	9/3/2002	§102(b)
Kulakowski	1013	WO 2007/084973	1/19/2007	7/26/2007	§102(b)

Although U.S. Application Publication No. 2005/0174975 (“Mgrdechian ’975”) (**Mgrdechian’s** pre-grant publication) (Ex. 1023) was cited in an Information Disclosure Statement (Ex. 1002, 482), it was not applied to reject the claims during prosecution of ’913 (*id.*, 87-106, 112-125, 159-196, 250-288, 382-427). And while Mgrdechian ’975 was applied during prosecution of related U.S. Patent Nos. 8,370,955 (’955) (Ex. 1028, 91-110, 147-69, 249-72) and 9,038,129 (’129) (Ex. 1029, 141-67, 292-317), neither application warrants exercise of discretion under §325(d) as ’955 and ’129 are not parents of ’913, have different claims, and were examined by different examiners.

³ Mgrdechian was also published as U.S. 2005/0174975 (prior art under §102(b)).
Ex. 1023.

During prosecution of '955, the examiner thrice rejected the claims over Mgrdechian '975—twice as *anticipating* the independent claims. Ex. 1028, 91-110, 147-69, 249-72. After the second anticipation rejection, the applicant added a new claim (prosecution claim 35) reciting features not found in the '913 Challenged Claims, such as limitations relating to the further information identifying one or more merchants associated with the second identifier, receiving messages from the first device indicating a selection of a merchant and an input to engage in a transaction with the merchant, sending an image of an entity associated with the first identifier to a device associated with second identifier, and receiving a message from the merchant's device indicating confirmation that the image matches the entity associated with the first identifier and to proceed with the transaction. Ex. 1028, 226-27. After this new claim 35 was deemed allowable, the applicant canceled all other pending claims to which Mgrdechian '975 had been applied, tacitly conceding those claims were unpatentable over Mgrdechian '975. Ex. 1028, 327, 333. Because '955's issued claims recite features not present in the '913 Challenged Claims, the '955 prosecution is relevant to '913 only in that the applicant never succeeded in overcoming Mgrdechian '975 as to the canceled claims.

Additionally, '129 was filed January 18, 2013, one month before '913 issued, and '975 was first relied upon by the Examiner in '129 on October 25, 2013, after '913 issued. Ex. 1001, 1; Ex. 1029, 1, 141-67. Accordingly, the '129 office actions

applying Mgrdechian '975 were not and could not have been before the '913 examiner.

Although the applicant cited Mgrdechian '975 and certain '955 office actions applying Mgrdechian '975 (cited as "Office Action; U.S. Application No. 13/015,306") in IDSs in '913's prosecution, these citations did not identify any particular portions of the disclosures relevant to '913's claims, and the '913 examiner did not rely on **Mgrdechian** or Mgrdechian '975 during the '913 prosecution. Ex. 1002, 290, 485. These bare citations in IDSs do not warrant exercise of discretion under §325(d). *Vizio, Inc. v. Nichia Corp.*, IPR2017-00551, Paper 9, *7-8 (no evidence that references cited in IDS were applied against the challenged claims or that examiner considered particular disclosures cited by Petitioner); *Microsoft Corp. v. Parallel Networks, LLC*, IPR2015-00486, Paper 10, *14-15 (same).

None of the other references was cited in an IDS or otherwise identified by the Examiner, or applied in a rejection of the claims during prosecution of the '913. The Examiner never considered the grounds presented herein or the testimony of Petitioner's expert David Williams ("Williams," Ex. 1003) regarding the scope and content of the prior art. *See* Ex. 1002. Because the presented grounds are not cumulative of any prior art previously considered, and are not the same or substantially the same as prior art or arguments previously considered, the Board

should not exercise its discretion under §325(d).⁴ Applying the factors from *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020), the Board should not exercise its discretion to deny institution under §314(a): (1) the district judge before whom this case is pending has granted every post-institution motion to stay that Petitioner has found (Exs. 1016-1019); (2) this case was filed on 10/2/2019; and while trial is currently set for 9/7/2021, it may be delayed due to a variety of factors including those relating to COVID-19; (3) the litigation is in its early stages and Petitioner did not delay in filing this Petition—the court has not ruled on Petitioner’s motion to dismiss or any substantive issue relating to the ’913, PO served its infringement contentions on 2/10/2020, identifying over 120 claims at issue in the litigation, PO has refused to reduce the number of asserted claims, which would have also narrowed the number of claims challenged before the Board, and PO has not yet responded to Petitioner’s invalidity contentions in the litigation; (4) while the challenged claims are all asserted in the litigation currently, that may change before institution; (5) the litigation and PTAB parties are the same; and (6) as demonstrated herein, the merits of the grounds raised and public policy favor institution—the

⁴ Even if Mgrdechian ’975 had been considered, the Examiner would have had to err by not rejecting the Claims for the reasons explained herein and the Board should not exercise its discretion under §325(d).

Challenged Claims are anticipated, and at minimum rendered obvious, by art that the USPTO never applied during prosecution, and PO has indicated that it intends to continue to assert this patent against numerous other defendants (Ex. 1020). This IPR should be instituted.

2. Statutory Grounds on Which the Challenge is Based

Ground	References	Basis	Claims
1	Mgrdechian	§102	1-4, 6-10, 12, 15, 17, 19, 21, 32- 34, 39
2	Mgrdechian	§103	
3	Mgrdechian in view of Kaplan		
4	Mgrdechian in view of Gujar		
5	Mgrdechian in view of Kaplan and Gujar		
6	Mgrdechian in view of Kulakowski	§103	2, 8
7	Mgrdechian in view of Kaplan and Kulakowski		
8	Mgrdechian in view of Gujar and Kulakowski		
9	Mgrdechian in view of Kaplan, Gujar, and Kulakowski		

3. How the Challenged Claims Are Unpatentable

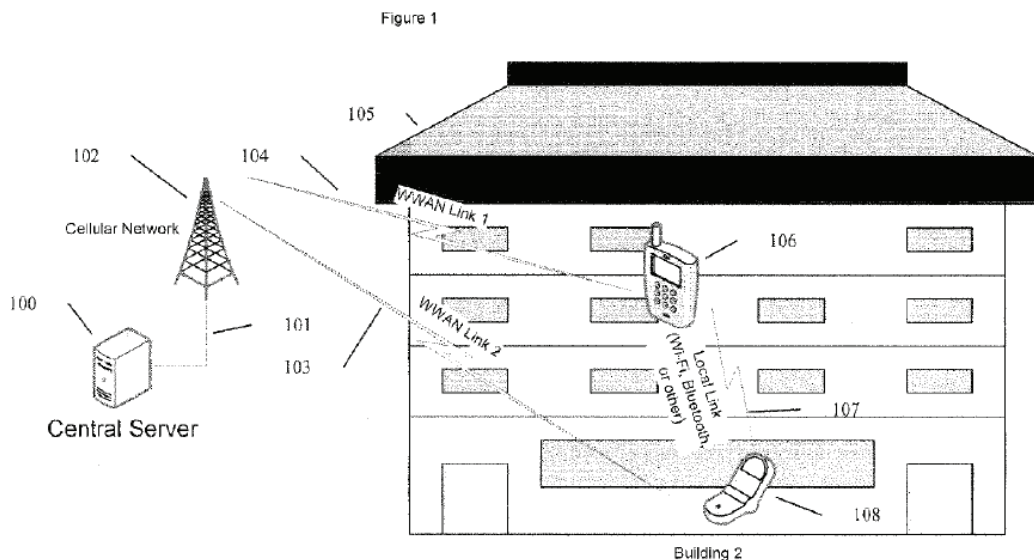
Petitioner provides the information required under §§42.104(b)(4)-(5) in §IX.

V. THE '913 PATENT

The '913 describes techniques for using a server to facilitate the exchange of information and transactions between wireless devices. '913, Abstract. The background section of the '913 concedes that wireless devices, such as mobile phones, already had access to both “wide area” cellular connections, and local “Bluetooth” connections that permit “short range” communications. '913, 1:25-36,

2:23-34. The '913 combines these two well-known communication methods, and describes methods for the exchange of information using “both a short range and a long range wireless capability.” '913, 2:52-56. Williams ¶¶57-58.

The '913's embodiments are directed to some variant of the same general functionality: (1) exchange an identifier using a short-range connection between the devices; (2) communicate the received identifier from a device to a server; and (3) determine some additional information that the server should communicate back to one or both devices. For example, Figure 1 of the '913 shows that “a central server 100 is connected to devices 106 and 108” through a combination of the Internet, and a “cellular network 102.” '913, 5:42-51. The devices are also able to communicate directly with each other via “a short range wireless link 107 such as a Bluetooth.” '913, 6:31-42.



'913, Fig. 1; Williams ¶¶59-60. The '913 states that each wireless device searches for nearby devices and exchanges “wireless identifier[s]” using Bluetooth. *E.g.*, '913, 6:47-51.

Rather than the two devices exchanging additional information directly, the '913 uses a server to broker the exchange of additional information. The '913 states that a first wireless device performs an identifier search and detects a device identifier from a second wireless device. *E.g.*, '913, 11:28-31, 14:36-47. The first wireless device transmits this received identifying information to a “central server” using a cellular or Internet connection, and the server returns “information associated with that [second] device identifier.” '913, 7:32-39, 9:55-62, 11:31-36, 14:43-55. Examples of such information include “content associated with the entity's account record such as music, pictures, links to social networking sites, instant messaging addresses, advertising content.” '913, 3:21-28, 17:56-18:5. The '913 further discloses that the first wireless device can reduce traffic to the server by “not re-requesting recently requested identifiers which have already been passed to the server.” '913, 7:60-65. Williams ¶¶61-63.

VI. PROSECUTION HISTORY

U.S. Patent Application 12/364,819, which matured into the '913, was filed 02/03/2009. The examiner rejected the challenged claims five times over prior art not at issue here. Ex. 1002, 87-106, 112-125, 159-196, 250-288, 382-427. On

1/18/2013, the examiner issued a Notice of Allowance, stating that the references applied in prior office actions did not disclose the limitations [1.f]-[1.g] (see §IX.A.2). *Id.*, 536. Williams ¶¶64-66.

VII. LEVEL OF ORDINARY SKILL

A person of ordinary skill in the art (“POSITA”) on or before 9/8/2008, would have had a minimum of a Bachelor’s degree in Electrical Engineering, or a related field, and approximately 3-5 years of professional experience in the field of wireless communications. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education. Williams ¶¶8-20, 36-38.

VIII. CLAIM CONSTRUCTION

Terms of claims subject to IPR are to be construed using the same claim construction standard as district courts. §42.100(b). Only terms necessary to resolve the controversy need to be construed. *Nidec Motor v. Zhongshan Broad Ocean Motor*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Williams ¶¶21, 67.

For review purposes, Petitioner interprets the claim terms according to their plain and ordinary meaning consistent with the specification. Williams ¶¶22-24, 67.

The parties have submitted proposed constructions in the underlying litigation, which do not impact the outcome of this IPR as the prior art meets each proposed construction as discussed in §IX. *See Ex. 1032*. Williams ¶67. While the Challenged

Claims use terms of degree (e.g., “short range wireless communication link,” “short range link,” “wide area wireless network”), the prior art relied on herein discloses the ’913’s examples of those terms as shown in §IX.A below. *See, e.g.*, ’913, 2:61-66 (“short range radio communication standard capabilities such as Bluetooth”), 2:10-16 (“cellular wireless wide area network connection (WWAN) ... such as CDMA (IS-2000), GSM, W-CDMA, WiMax, etc.”), 5:59-64 (“Communications network(s) providing the connection 101 can typically be part of a remote access network, a global network (e.g., the Internet), a worldwide collection of computers...”), 17:45-47 (“The device detects a broadcast device, and interacts over the internet with the server via the WWAN connection...”). Williams ¶68-72.

A district court in another proceeding has construed terms in related patents, but these constructions do not impact the outcome of this IPR. *See* Ex. 1021; Williams ¶67.

IX. GROUNDS OF UNPATENTABILITY

The ’913 is directed to a method and system for facilitating communications between two wireless devices through a server. At their core, the claims recite (1) sending an identifier from a second wireless device to a first wireless device using a short-range connection; (2) communicating the identifier from the first wireless device to a server; (3) receiving information back from the server corresponding to the identifier; (4) receiving a second identifier over the short-range connection; (5)

comparing the two identifiers as well as the information already received from the server; and (6) based on the comparison, suppressing sending the second identifier to the server. All Challenged Claims are anticipated and, at minimum, all Challenged Claims are obvious in view of the prior art cited herein, as explained below. Williams ¶¶75-76.

For example, **Mgrdechian** discloses a system for using a server to facilitate communications between Bluetooth-enabled devices. **Mgrdechian** discloses all the claimed features of the Challenged Claims, including devices that exchange “identifiers” using Bluetooth, send the identifiers to a server, which filters the identifiers, and receive profile information from the server for devices up to several “hops” away. **Mgrdechian** also discloses the devices store the received profile information locally for later searching and display. **Mgrdechian** discloses, and at minimum renders obvious that, the devices subsequently receive other identifiers from nearby devices, compare these identifiers to those previously received, and do not send these identifiers to the server if the identifiers are the same as those previously received. Williams ¶¶77-190.

To the extent it is argued that further disclosure is required beyond **Mgrdechian**, several references make express what a POSITA would have also understood from **Mgrdechian**’s teachings. **Kaplan** teaches identifier comparison implementation details that would have been obvious to apply in implementing

Mgrdechian's wireless communication system, such as comparing received identifiers to information previously received from a server to avoid requesting already available information (*see* §IX.B). **Gujar** teaches identifier comparison and wireless device implementation details that would have been obvious to apply in implementing **Mgrdechian's** wireless communication system, such as comparing newly received identifiers to previously received identifiers to avoid repeatedly sending the same identifier, and using separate receivers for Bluetooth and cellular communication (*see* §IX.C). Likewise, as to claims 2 and 8, **Kulakowski's** implementation detail teachings of changing identifiers for wireless devices in coordination with a server would have been obvious to apply in implementing **Mgrdechian's** wireless devices, which dynamically change identifiers (*see* §IX.D). Williams ¶¶191-216.

As shown below, the cited prior art renders the Challenged Claims unpatentable. This Petition is supported by the Declaration of David Williams, which describes the scope and content of the prior art at the time of the alleged invention of the '913. Williams ¶¶1-225.

A. Grounds 1-2: Mgrdechian Anticipates (Ground 1) And Renders Obvious (Ground 2) all Challenged Claims

As further set forth below, all Challenged Claims are anticipated by **Mgrdechian**. However, as further described below for particular limitations, to the

extent it is argued that further evidence is required for those limitations, a POSITA would have found the limitations obvious in view of Mgrdechian—rendering all Challenged Claims obvious. Williams ¶¶75-76.

1. Overview of Mgrdechian

Mgrdechian discloses a “wireless communication system” for “exchange of information between wireless devices” that are “within range” of each other. Mgrdechian, 1:32-35, 9:65-10:5. The system includes “device A” functioning as a “first wireless device” and “device B” functioning as a second “wireless device.” *Id.*, 6:59-61, 9:40-55, 9:65-10:5, 20:1-47. Each wireless device broadcasts its identifier (ID) and other information “continuously or intermittently.” *Id.*, 6:59-61, 20:1-47. The devices can send their IDs upon receiving a query, or they can operate in broadcast mode, transmitting their IDs for detection by any device in the vicinity without having first established a connection with those devices. *Id.*, 6:59-61. This allows device A to detect other wireless devices within range, including device B, and to notify device A’s user of the presence of device B’s user. Mgrdechian, 6:44-50, 6:59-61, 20:1-47. This exchange of IDs is conducted using a “local wireless protocol...for establishing a peer-to-peer...network,” examples of which are “802.11” and “Bluetooth.” *Id.*, 10:10-15, 20:1-47. In addition, device A, upon receiving device B’s ID, sends it to the “remote computer” (a server) via a wide area network, such as a “wireless phone network” and the “Internet.” Mgrdechian, 10:48-

56, 20:1-47, 22:3-12. Device A may receive many identifiers, such as when users congregate in an area, which are communicated to the server as efficiently as possible, for example, in a batch query. Mgrdechian 6:44-50, 17:51-56. Williams ¶¶77-80.

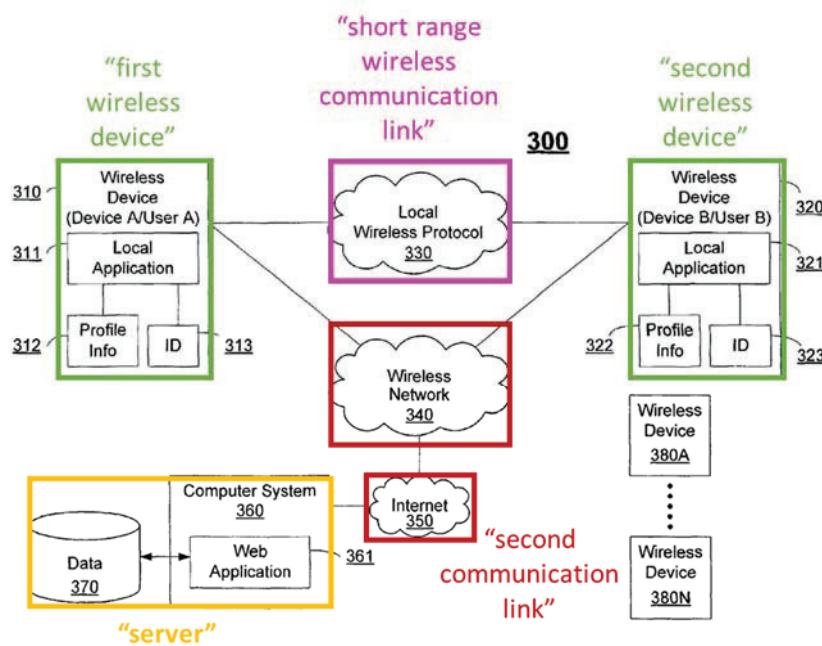


Fig. 3A

Id., Fig. 3A.

The server uses the knowledge of which devices are within range of each other to maintain a “positional database” of devices and their relative location. *Id.*, 20:1-47, Fig. 10. This enables the server to determine, for example, that device B is within range of device A and device C is “one hop” away from device A. Mgrdechian, 12:18-26, 20:1-47, Fig. 10. The server stores profile information associated with

users and their devices. *Id.*, 8:5-14. Thus, for example, device B's profile information is associated with device B and device B's identifier, and likewise for device C. *Id.*; Williams ¶X. The server then "send[s]...profile information associated with" device B and device C, which "is in range of device B," to the "initiating wireless device (e.g., device A)." Mgrdechian, 12:18-26, 20:1-47. Profile information returned to device A includes device B's and C's IDs, to identify the profile information and enable communication with devices B and C. *Id.*, 5:31-35, 8:5-14. The profile information may contain a list of friends, using their identifiers. *Id.*, 11:34-52. Williams ¶¶81-82. At minimum, it would have been obvious to advantageously include corresponding identifiers in the list of friends in profile information to enable users to connect with each other using **Mgrdechian's** wireless communications system (consistent with **Mgrdechian's** goal to connect mutual friends). *Id.*, 11:48-52; Williams ¶82.

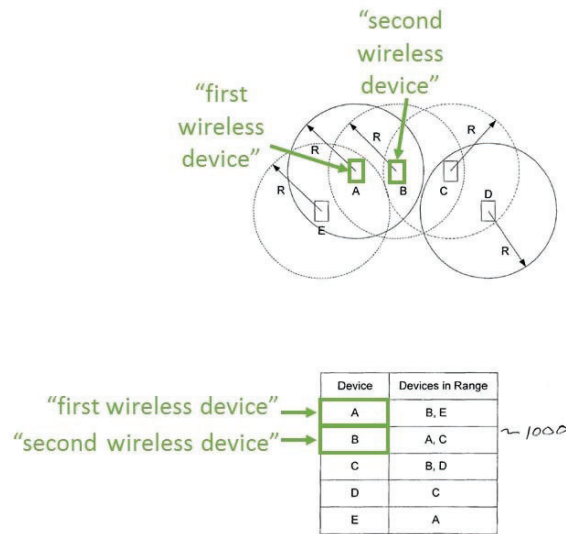


Fig. 10

Id., Fig. 10.

In addition, **Mgrdechian** discloses that the server can restrict access to information based on user settings, such as “filter parameters” and “non-public” designations. *Mgrdechian*, 13:50-14:8, 16:60-17:10, Fig. 7A. In this way, “profile information returned” by the server “depends in part on how User B [or any other target device (e.g., device C)] has configured his/her profile information.” *Id.* Accordingly, device A is provided access to only portions of device B’s “profile information” that passes device B’s “filter parameters.” *Id.* The server uses the “device IDs of both the target [e.g., device B] and the initiating [e.g., device A] devices to perform filtering.” *Mgrdechian*, 13:50-14:8, 14:16-26, 19:13-22. The server uses device B’s ID to retrieve device B’s “filter parameters” and compares it with device A’s profile information, which is retrieved using device A’s ID. *Id.* If

the server determines that there is a match or that device A is allowed access to device B's information, device B's profile information is sent to device A. *Id.*, 13:50-14:8. Otherwise, device B's profile information is "filtered out" and not sent to device A. *Id.* When device A receives device B's (and likewise device C's) "profile information," which includes images of users of devices B and C, this set of information and images is displayed on device A's display. Mgrdechian, 11:59-64, 13:24-38. Williams ¶¶83-84.

Mgrdechian's wireless devices can move into and out of range of each other. Mgrdechian, 9:65-10:5. Device A detects other wireless devices "as they come within [the effective] range" of the "local wireless protocol" and "sends an identification request" for the other devices' IDs. Mgrdechian, 9:65-10:5, 10:38-47, 19:34-39. Accordingly, when device C, which was previously not within reach of device A, comes "within range" of device A, it "transmit[s] [its unique] device ID" to device A. *Id.*, 10:38-47, 16:16-33, 20:1-47, Figs. 3A, 10. Williams ¶85.

The devices locally store profiles to minimize information transferred over the communication links. The "[p]rofile information" for devices B and C, identified by the corresponding device identifiers, is received from the server and stored locally on the "initiating" device, device A. Mgrdechian, 8:5-14, 12:18-26, 20:1-47. When device C subsequently comes within range of device A and directly sends its ID to device A, device A compares device C's ID to the list of identifiers (including both

device B's and C's IDs) corresponding to the "saved profiles" to determine whether device A already has device C's profile. *Id.*, 12:18-26, 20:56-21:8, Fig. 11. Upon determining that device C's profile is locally "saved," device A refrains from sending device C's ID to the server. *Id.*, 12:18-26, 15:44-16:2.

To the extent it is argued that further disclosure is required, at minimum it would have been obvious not to contact the server to advantageously reduce the amount of information requested from the server by device A, and this would have been consistent with **Mgrdechian's** goal to do so. *Id.*, 15:44-16:2; Williams ¶87. Indeed, Mgrdechian discloses that the wireless devices have the capability to "search for saved profiles," and it would be an obvious implementation choice to use this capability when identifiers are received. Mgrdechian, 20:56-21:8; Williams ¶87. Reducing information requested from the server saves computing resources, wireless bandwidth, and battery life while ensuring that users still get the most relevant information about entities and devices in proximity. Mgrdechian, 15:44-16:2; Williams ¶87. Indeed, a POSITA would have been motivated to and found it straightforward to limit the request to a server for information already cached locally. *See, e.g.*, Kaplan, Fig. 4, 3:58-4:8 (a device requests "picture and contact information" for another device from a server only if the "data is not locally available"); U.S. 9,734,198 ("Taylor") (Ex. 1025—filed 11/30/2007), Abstract,

2:42-51 (client requests for duplicate information are suppressed to avoid “unnecessary queries against the underlying database”); Williams ¶87.

When desired by the user of device A (*i.e.*, user A), device A subsequently displays the “saved profiles.” *Id.*, 20:56-21:8, Fig. 11. Williams ¶86. Because device C’s profile is saved locally on device A, device A’s user can contact device C using a “pre-constructed message” without having to contact the server again to get the contact information. *Id.*, 12:18-37, 5:31-35.

Mgrdechian discloses that wireless devices IDs are updated periodically (e.g., “dynamical[ly]” or “pseudo-random[ly]”), such that when they are changed, the previous ID value is no longer “associated with” or able to be used to retrieve profile information at the server. *Mgrdechian*, 5:1-3, 11:55-58; Williams ¶88. To the extent it is argued further disclosure is required, at minimum, it would have been obvious to a POSITA to implement this functionality at the server, in view of **Mgrdechian’s** stated goals of maintaining data security and privacy. *Id.*, 16:60-17:10, 17:17-27; Williams ¶88. Implementing functionality at the server to handle the “dynamic” device IDs would advantageously keep the association of the user’s profile with the user’s device such that the profile could still be edited by the user and searched by other users, while allowing the “dynamic” device IDs to change to advantageously increase security. Williams ¶88.

Mgrdechian discloses that user A can “initiate a scan” for nearby devices such as device B, E, and C “when in visual contact with another user.” Mgrdechian, 9:13-33, 13:3-18. Device A receives identifiers from device B and E and “upload[s] these IDs to...one or many servers,” which then send associated “summary profile[s],” including the users’ images, “back to Device A.” *Id.*, 5:4-10; 12:18-26, 20:56-21:6. Device A displays the images associated with devices B, E, and C (which is within one hop) for user A to view. *Id.*, 5:21-30. Additional profile information may be retrieved from the server “if the initiating user selects a particular target user based on the picture and initial information” in the “summary profile.” *Id.*, 12:18-26, 17:28-43. Williams ¶89.

Mgrdechian’s system is used for “electronic commerce applications including micropayments” for purchases between wireless devices (*e.g.*, devices A and B). Mgrdechian, 15:11-15. For example, device’s B profile sent to device A can advertise “items or services for sale,” which device A can then purchase from device B. *Id.*, 21:6-8. Williams ¶90.

Mgrdechian’s wireless devices include typical hardware, such as a receiver comprising an “antenna” for “receiving” RF signals coupled to “RF circuitry” for implementing the “local wireless protocol.” Mgrdechian, 21:65-22:12, Figs. 8, 13. **Mgrdechian’s** wireless devices also include typical “RF circuitry” for implementing a “wireless phone technology”—enabling the antenna and RF circuitry to function

as a cellular network receiver and transmitter to communicate with the server. Mgrdechian, 21:65-22:12, Figs. 8, 13. A POSITA would have understood that Mgrdechian thus has a two separate transmitter/receiver pairs for communicating via Bluetooth and the cellular network, respectively. Williams ¶¶91-92. At minimum, it would have been an obvious implementation choice to do so to advantageously communicate with nearby wireless devices. Williams ¶93. Indeed, '913 admits that mobile phones capable of communicating via “wireless wide area network” “require[] additional hardware...in the form of a RFID chip” to “utilize RFID (Radio Frequency Identification) chips to perform mobile payments.” '913, 1:25-2:9, *see also id.* 2:10-22 (using “two wireless standards” was known), Claim 4 (asserting RFID is a “short range wireless communication link”). Williams ¶93. Using separate transmitter/receiver pairs simplifies design and manufacturing, reduces interference, reduces power by allowing circuitry not in use to be placed in standby mode, and reduces heat generation. Williams ¶93. In addition, using separate sets of receiver and transmitter for cellular and short-range wireless protocols, which operate at different frequencies, allows for optimizing the RF circuitry design for each of those protocols separately such that noise is reduced and overall power consumption is minimized. Williams ¶93.

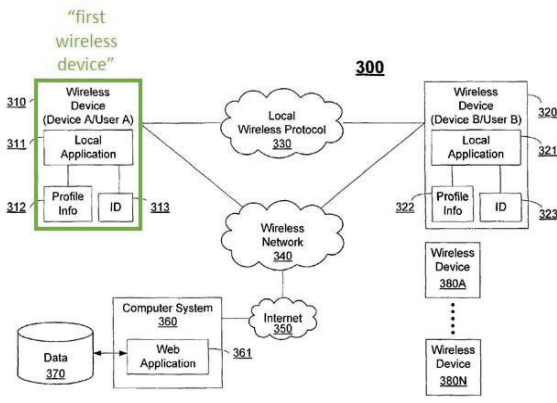
Mgrdechian is in the same field of art and is analogous art to '913—both are in the same field related to wireless communication systems. *E.g.*, '913, 2:50-56;

Mgrdechian, 1:32-35; Williams ¶¶94. In addition, Mgrdechian is reasonably pertinent to the alleged problem(s) identified in '913 of overcoming the alleged inaccuracies of GPS systems, and avoiding the alleged security and privacy concerns of direct peer-to-peer communications. *E.g.*, '913, 2:39-44, 3:54-61; Mgrdechian 4:40-47, 9:56-60; Williams ¶¶95.

As further discussed below, Mgrdechian anticipates, and at minimum renders obvious, all Challenged Claims. Williams ¶¶75-76.

2. Claim Chart—Mgrdechian

Claim Element	<u>Mgrdechian</u>
[1.pre] A method for operating a first wireless communication device comprising:	<p>Mgrdechian discloses a method for operating a first wireless communication device (<i>e.g.</i>, “first wireless device,” “device A”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>Mgrdechian discloses a “wireless communication system” for “exchange of information between wireless devices” that are “within range” of each other. Mgrdechian, 1:32-35, 9:65-10:5. The system includes “device A” functioning as a “first wireless device.” <i>Id.</i>, 9:40-55, 9:65-10:5.</p> <ul style="list-style-type: none"> • 1:32-35 (“The present invention relates to...a wireless communication system and method that provides <u>an exchange of information between wireless devices.</u>”) • 9:40-55 (“<u>Communication between wireless devices may be initiated by a first user of one of the wireless devices</u> (<i>e.g.</i>, User A..., “<u>Device A</u>”)... interested in obtaining information about another user”)

Claim Element	<u>Mgrdechian</u>
	<ul style="list-style-type: none"> • 9:65-10:5 (“<i>[F]irst wireless device 310 may wirelessly communicate with wireless devices 390A-N that are within range....</i>”) • Fig. 3A:  <p style="text-align: center;">Fig. 3A</p> • See also 1:32-35, 6:20-24, 20:1-47, 24:32-38, Fig. 10. <p>Williams ¶¶96-97.</p>
<p>[1.a] a first receiving step of receiving a first unique identifier from a second wireless device using a peer-to-peer protocol over a short range wireless communication link;</p>	<p>Mgrdechian discloses a first receiving step of receiving a first unique identifier from a second wireless device (e.g., “device A” receives “unique” “device ID” from “device[] B”) using a peer-to-peer protocol over a short range wireless communication link (e.g., using a “local wireless protocol” such as “Bluetooth” in “a peer-to-peer...network”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>Mgrdechian discloses each wireless device “continuously or intermittently broadcast[ing] its ID and/or other information,” allowing device A to detect other wireless devices “within range” (e.g., “device B”). Mgrdechian, 6:59-61, 20:1-47. IDs are “unique.” <i>Id.</i> 16:16-19. Device A receives device B’s ID via a “local wireless protocol”</p>

Claim Element	<u>Mgrdechian</u>
	<p>such as “Bluetooth” “for establishing a peer-to-peer...network.” <i>Id.</i>, 10:10-15, 20:1-47.</p> <ul style="list-style-type: none"> • 6:59-61 (“[A] <u>device may continuously or intermittently broadcast its ID and/or other information....</u>”) • 10:10-15 (“[W]ireless technologies that may be used as a <u>local wireless protocol include Bluetooth...for establishing a peer-to-peer or ad hoc network or detecting the presence of other wireless devices and exchanging device IDs.</u>”) • 16:16-19 (“[W]ireless device IDs 813 and 823 are unique identifications.”) • 20:1-47 (“[T]he <u>presence of neighboring devices</u> are established <u>via a local wireless protocol</u>,...in FIG. 10 it can be seen that <u>device A is within range of devices B and E</u>. Thus, <u>if device A issues an identification request, it will receive device IDs from devices B and E...when device A initiates an identification request, devices B and E return their device IDs</u>, which are subsequently sent to the remote computer.”) • Fig. 3A:

Claim Element **Mgrdechian**

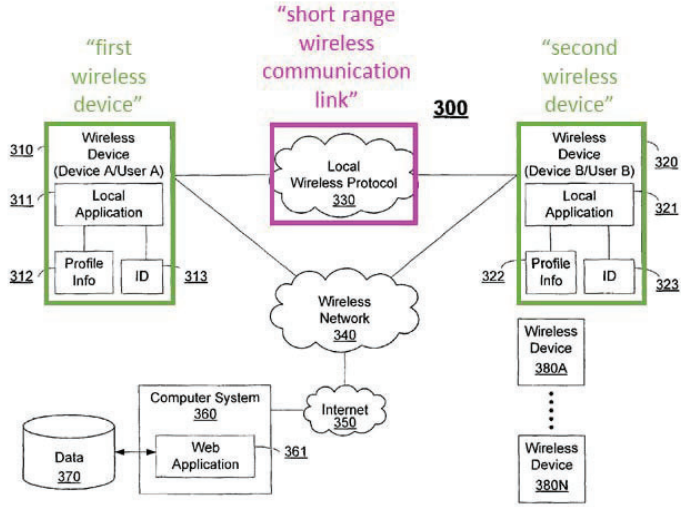


Fig. 3A

- Fig. 10:

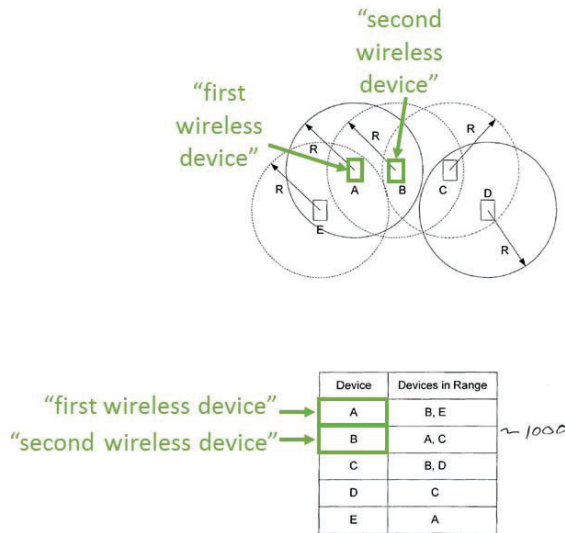
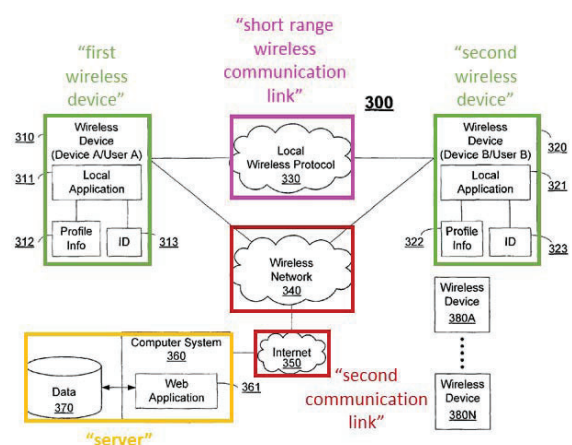


Fig. 10

- See also 13:3-18, 19:34-39.

Claim Element	<u>Mgrdechian</u>
	Williams ¶¶98-100.
<p>[1.b] connecting to a server over a second communication link using a protocol different from the peer-to-peer protocol used on the short range wireless communication link;</p>	<p>Mgrdechian discloses connecting to a server (e.g., “remote computer”/“server”) over a second communication link using a protocol (e.g., “the initiating device may transmit device IDs to a remote computer system 360 through wireless network 340 (e.g., a wireless phone network) and the Internet 350”) different from the peer-to-peer protocol used on the short range wireless communication link (e.g., “CDMA, PCS or GSM”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See [1.a].</i></p> <p>In addition, Mgrdechian discloses wireless device A communicating with a “remote computer (e.g., a server)” via a wide area network, such as a “wireless phone network” and “Internet” using a protocol for these networks. Mgrdechian, 10:48-56, 13:18-23, 22:3-12.</p> <ul style="list-style-type: none"> • 10:48-56 (“[T]he <u>initiating device may transmit the device IDs to a remote computer system 360 through wireless network 340 (e.g., a wireless phone network) and the Internet 350 ...</u>”) • 13:18-23 (“the <u>remote computer (e.g., a server)</u>”) • 22:3-12 (“...<u>a wireless phone technology (e.g., an analog or digital cellular technology, CDMA, PCS or GSM).</u>”) • Fig. 3A:

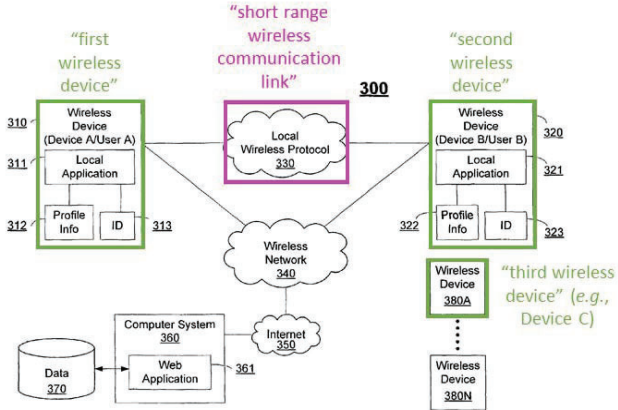
Claim Element	<u>Mgrdechian</u>
	 <p style="text-align: center;">Fig. 3A</p> <p>Williams ¶¶101-103.</p>
<p>[1.c] sending the first unique identifier to the server over the second communication link;</p>	<p>Mgrdechian discloses sending the first unique identifier (e.g., see [1.a]) to the server (e.g., see [1.b]) over the second communication link (e.g., B’s “device ID [is] subsequently sent to the remote computer” from device A).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See [1.a]-[1.b].</i></p> <p>In addition, Mgrdechian discloses that device A, upon receiving device B’s ID, sends it to the “remote computer” via the “wireless phone network” and “Internet.”</p> <p>Mgrdechian, 10:48-56, 20:1-47.</p> <ul style="list-style-type: none"> • 10:48-56 (“[T]he <i>initiating device may transmit the device IDs to a remote computer system 360 through wireless network 340 (e.g., a wireless phone network) and the Internet 350 ...</i>”) • <i>See also</i> 20:1-47 <p>Williams ¶¶104-105.</p>

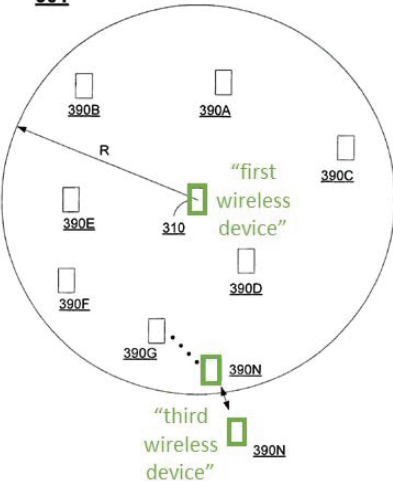
Claim Element	<u>Mgrdechian</u>
<p>[1.d] receiving further information from the server over the second communication link;</p>	<p>Mgrdechian discloses receiving further information from the server over the second communication link (e.g., “remote computer can use the device IDs for device[] B to return information for [this] device[]” to device A; “using the positional database 1000, the remote computer can further determine that device C is in range of device B,” “the system may automatically use device C's ID and return information associated with device C's ID to device A”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.b].</p> <p>In addition, Mgrdechian discloses that the server “send[s]...profile information associated with” device B and device C, which “is in range of device B,” to the “initiating wireless device (e.g., device A).” Mgrdechian, 12:18-26, 20:1-47. The server maintains a “positional database” to enable “return” of “profile information” “associated with” “all users active within one hop,” including devices B and C. <i>Id.</i>, 12:18-26, 20:1-47, Fig. 10. Profile information returned to device A includes device B’s and C’s IDs, to identify the profile information. <i>Id.</i>, 8:5-14.</p> <ul style="list-style-type: none"> • 12:18-26 (“<u>[C]omputer system 360 may send some or all of the profile information associated with each device ID back to the initiating wireless device (e.g., Device A)...</u>”) • 20:1-47 (“[I]n FIG. 10 it can be seen that device A is within range of devices B and E....<u>[P]ositional information may be captured in positional database 1000.... The remote computer can use the device IDs for devices B and E to return information for these devices.</u> However, <u>using the positional database 1000, the remote computer can further determine that device C is in range of device B.</u> If the system is programmed to return all users active

Claim Element	<u>Mgrdechian</u>
	<p>within one hop, <u>the system may automatically use device C's ID and return information associated with device C's ID to device A.</u>")</p> <ul style="list-style-type: none"> • <i>See also</i> 8:5-14, Fig. 10. <p>Williams ¶¶106-108.</p>
<p>[1.e] the further information related to an entity or object associated with the second wireless device, the further information depending upon information parameters for a service account associated with the first unique identifier;</p>	<p>Mgrdechian discloses that the further information (e.g., see [1.d]) is related to an entity or object associated with the second wireless device (e.g., “information” of device B as well as “device C,” which “is in range of device B”), the further information depending upon information parameters for a service account associated with the first unique identifier (e.g., “information returned in reply 806 depends in part on how User B has configured his/her profile information,” which profile information is associated with User B’s ID).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.d].</p> <p>In addition, Mgrdechian discloses that each profile (information parameters for a service account) stored by the server contains parameters (e.g., “filter parameters” and information designated “non-public,” such that it “may not be disclosed”) and “profile information returned” by server “depends in part on how User B [or any other target device] has configured his/her profile information.” Mgrdechian, 13:50-14:8, 16:60-17:10, Fig. 7A. Mgrdechian discloses that each profile is associated with a user account. Mgrdechian, 6:54-56. Accordingly, device A is provided access to only those portions of device B’s “profile information” that pass device B’s “filter parameters.” <i>Id.</i></p> <ul style="list-style-type: none"> • 13:50-14:8 (“FIGS. 7A-B illustrate <u>filtering based on profile information....</u> Some applications <u>may use the device IDs of both the target and the</u>

Claim Element	<u>Mgrdechian</u>
	<p><i>initiating devices to perform filtering. For example,...a query using the device IDs is generated, and at 703 profile information and filter parameters associated with the device IDs are retrieved. At 704, the filter parameters are applied to the profile information...[T]he initiating user may be denied access to the target's profile if the initiating user's profile information does not satisfy the target user's filter parameters.”)</i></p> <ul style="list-style-type: none"> <p>16:60-17:10 (“<i>The profile information returned in reply 806 depends in part on how User B has configured his/her profile information. For example, User B may store some information that is designated non-public (i.e., information that may not be disclosed[])...non-public information may be filtered out when generating reply 806.</i>”)</p> <p>Fig. 7A:</p> <pre> graph TD 701[Web Application receives wireless device IDs of a target user and an initiating user from initiating device] --> 702[Generate a query using wireless device IDs] 702 --> 703[Retrieve profile information and filter parameters] 703 --> 704[Apply filter parameters to profile information] 704 --> 705{pass} 705 -- N --> 706[Reject] 705 -- Y --> 707[Send Profile Information to initiating device] </pre> <p>The flowchart in Fig. 7A illustrates a process for profile filtering. It begins with step 701: 'Web Application receives wireless device IDs of a target user and an initiating user from initiating device'. This leads to step 702: 'Generate a query using wireless device IDs'. Step 703, 'Retrieve profile information and filter parameters', and step 704, 'Apply filter parameters to profile information', are enclosed in an orange box and collectively labeled as 'information parameters'. Following step 704, a decision diamond 705 asks 'pass'. If the answer is 'N' (No), the process moves to step 706, 'Reject'. If the answer is 'Y' (Yes), the process moves to step 707, 'Send Profile Information to initiating device'.</p>

Claim Element	<u>Mgrdechian</u>
	<ul style="list-style-type: none"> • <i>See also</i> 6:54-56, 14:61-65. <p>Williams ¶¶109-112.</p>
<p>[1.f] a second receiving step of receiving a second unique identifier from one of the second wireless device and a third wireless device using the peer-to-peer protocol over the short range wireless communication link, wherein the first unique identifier received in the first receiving step and the second unique identifier received in the second receiving step are not the same;</p>	<p>Mgrdechian discloses a second receiving step of receiving a second unique identifier from ... a third wireless device using the peer-to-peer protocol over the short range wireless communication link (e.g., receiving “unique” “device ID” from “device C” via the “local wireless protocol”), wherein the first unique identifier (e.g., see [1.a]) received in the first receiving step and the second unique identifier received in the second receiving step are not the same (e.g., ID for “device B” is not the same as ID for “device C”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See [1.a].</i></p> <p>In addition, Mgrdechian discloses that a wireless device detects other wireless devices “as they come within [the effective] range” of the “local wireless protocol” and “sends an identification request” for the other devices’ IDs. Mgrdechian, 9:65-10:5, 10:38-47, 19:34-39. Accordingly, when device C, which was previously not within reach of device A, comes “within range” of device A, device C “transmit[s] [its] device ID” to device A. <i>Id.</i>, 10:38-47, 20:1-47, Figs. 3A, 10. Device C’s ID is different from device B’s. <i>Id.</i>, 16:16-17, 16:31-33.</p> <ul style="list-style-type: none"> • 9:65-10:5 (“<u>[F]irst wireless device 310 may wirelessly communicate with wireless devices 390A-N that are within range of device 310...communication using protocol 301 is dynamic because as users...move, new devices may be detected as they come within range and other devices may become undetectable as they move out of range.</u>”) • 10:38-47 (“<u>[A]n initiating wireless device 310 (i.e., Device A) sends an identification request (i.e., a</u>

Claim Element	<u>Mgrdechian</u>
	<p><i>query or scan) to other wireless devices within range....When an identification request is received, one or more of these devices may access and transmit a device ID back...in a reply.”)</i></p> <ul style="list-style-type: none"> • 16:16-19 (“[W]ireless device IDs 813 and 823 are unique identifications.”) • 19: 34-39 (“Each circle represents <i>the effective range of the local wireless protocol, such as Bluetooth...</i>”) • 20:1-47 (“[T]he system may automatically use <i>device C’s ID and return information associated with device C’s ID to device A.</i>”) • Fig. 3A:  <p style="text-align: center;">Fig. 3A</p> <ul style="list-style-type: none"> • Fig. 3B:

Claim Element	<u>Mgrdechian</u>
	<p style="text-align: center;">301</p>  <p style="text-align: center;"><i>Fig. 3B</i></p> <ul style="list-style-type: none"> • <i>See also</i> Fig. 10. <p>Williams ¶¶113-116.</p>
<p>[1.g] and comparing the first unique identifier received in the first receiving step and (b) said further information with (c) the second unique identifier received in the second receiving step, and as a result of such comparing, suppressing, in response to the second receiving step, a subsequent sending of the</p>	<p>Mgrdechian discloses comparing the first unique identifier received in the first receiving step (e.g., ID for device B; see [1.a]) and (b) said further information (e.g., profile information for devices B and C; see [1.d]) with (c) the second unique identifier (e.g., ID for device C; see [1.f]) received in the second receiving step (e.g., determining whether the profile corresponding to device C’s ID has been “saved” by comparing it to device C’s ID associated with its “saved” profile as well as device B’s ID associated with its profile), and as a result of such comparing, suppressing, in response to the second receiving step, a subsequent sending of the second unique identifier received in the second receiving step to the server over the second communication link (e.g., because device C’s ID has already been “saved,” not sending device C’s ID to the server to retrieve the already “saved” profile).</p>

Claim Element	<u>Mgrdechian</u>
second unique identifier received in the second receiving step to the server over the second communication link.	<p><u>E.g., Mgrdechian:</u> <i>See [1.a], [1.d], [1.f].</i></p> <p>In addition, Mgrdechian discloses that the “[p]rofile information” for devices B and C, identified by the corresponding device identifiers, are received from the server and stored locally on the “initiating” device, device A. Mgrdechian, 8:5-14, 12:18-26, 20:1-47. When device C subsequently comes within range of device A and directly sends its ID to device A, device A compares device C’s ID to the identifiers (including both device B’s and C’s IDs) in the “saved profiles” to determine whether device A already has device C’s profile. <i>Id.</i>, 12:18-26, 20:56-21:8, Fig. 11. Upon determining that device C’s profile is locally “saved,” device A refrains from sending device C’s ID to the server. <i>Id.</i>, 12:18-26, 15:44-16:2. As discussed in §IX.A.1, at minimum, this would have been obvious to advantageously reduce the amount of information requested from the server by device A (consistent with Mgrdechian’s goal to do so). <i>Id.</i>, 15:44-16:2; Williams ¶120.</p> <ul style="list-style-type: none"> • 12:18-26 (“[C]omputer system 360 may send some or all of the profile information associated with each device ID back to the initiating wireless device (e.g., Device A),...<u>Profile information for one or more targets may be stored internally on a wireless device</u> or selectively deleted. <u>Some or all of the profile information may be saved</u> (e.g., as a complete profile or as a summary profile).”) • 15:44-16:2 (“[I]n addition to providing their device IDs, the <u>queried devices may also provide various forms of initial profile information</u>, such as a picture of User B or text, <u>so that User A can select other users to communicat[e] with from the available users on the local network</u>... Thus, rather than automatically retrieving profile information for all

Claim Element	<u>Mgrdechian</u>
	<p>device IDs within range, <i>computing resources may be saved by narrowing the list to profiles of interest to be retrieved from the remote computer system.</i>")</p> <ul style="list-style-type: none"> • 20:56-21:8 (“At 1102, <i>a user may scan for profiles in the vicinity (e.g., by transmitting a identification request), search for saved profiles or obtain system information...</i>”) • Fig. 11: <p style="text-align: center;">Fig. 11</p> <ul style="list-style-type: none"> • <i>See also 8:5-14 Williams ¶¶117-120.</i>
[2] The method of claim 1 wherein	See [1].

Claim Element	<u>Mgrdechian</u>
<p>the step of detecting further information from the server is not performed if the server determines that a unique identifier for the second wireless device is not current.</p>	<p>Mgrdechian discloses that the step of detecting further information from the server (e.g., see [1.c]-[1.d]) is not performed if the server determines that a unique identifier for the second wireless device is not current (e.g., “unique” “ID’s are...dynamic”—a superseded identifier does not retrieve the “profile information associated with” the current “ID”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.a], [1.c]-[1.d].</p> <p>In addition, Mgrdechian discloses that wireless devices IDs are updated periodically (e.g., “dynamical[ly]” or “pseudo-random[ly]”). Mgrdechian, 5:1-3. A POSITA would have understood that the server does not return profile information for device B to an initiating device if device B’s ID provided by the initiating device does not match the updated identifier for device B. <i>Id.</i>, 5:1-3, 11:55-58; Williams ¶123. As discussed in §IX.A.1, at minimum it would have been obvious to a POSITA to implement this functionality at the server. <i>Id.</i>, 16:60-17:10, 17:17-27; Williams ¶¶88, 123.</p> <ul style="list-style-type: none"> • 5:1-3 (“<i>[D]evices can include cases where the ID’s are static, dynamic or pseudo-random.</i>”) • 16:16-19 (“<i>[W]ireless device IDs 813 and 823 are unique identifications.</i>”) <p>Williams ¶¶121-123.</p>
<p>[3] The method of claim 1 wherein the second communication link is provided by a wide area wireless network selected from the group</p>	<p><i>See [1].</i></p> <p>Mgrdechian discloses that the second communication link is provided by a wide area wireless network selected from the group consisting of CDMA (IS-2000), GSM, W-CDMA, WiMax, and UMTS (e.g., “wireless phone technology (e.g.,...CDMA...or GSM”).</p> <p><u>E.g., Mgrdechian:</u></p>

Claim Element	<u>Mgrdechian</u>
consisting of CDMA (IS-2000), GSM, W-CDMA, WiMax, and UMTS.	<p>See [1.b].</p> <p>In addition, Mgrdechian discloses that the “wireless phone network” may be “CDMA” or “GSM” wide area network. Mgrdechian, 10:48-56, 22:3-12.</p> <ul style="list-style-type: none"> • 10:48-56 (“[I]nitiating device may transmit the device IDs to a remote computer system 360 through <i>wireless network 340 (e.g., a wireless phone network)</i> and the Internet 350”) • 22:3-12 (“RF circuitry 1302...may include analog and digital circuits for implementing multiple wireless technologies such as...<i>a wireless phone technology (e.g., an analog or digital cellular technology, CDMA, PCS or GSM).</i>”) <p>Williams ¶¶124-126.</p>
<p>[4] The method of claim 1 wherein the short range wireless communication link is selected from the group consisting of Bluetooth, RFID, Wi-Fi, 802.11 based and Ultra-Wide-Band (UWB).</p>	<p>See [1].</p> <p>Mgrdechian discloses that the short range wireless communication link is selected from the group consisting of Bluetooth, RFID, Wi-Fi, 802.11 based and Ultra-Wide-Band (UWB) (e.g., “local wireless protocol include[s] Bluetooth [or] an 802.11 protocol”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.a].</p> <p>In addition, Mgrdechian discloses that the local wireless protocol is an “802.11 protocol” or “Bluetooth.” Mgrdechian, 10:10:15.</p> <ul style="list-style-type: none"> • 10:10-15 (“[W]ireless technologies that may be used as a <i>local wireless protocol include Bluetooth, an 802.11 protocol...</i>”) <p>Williams ¶¶127-128.</p>

Claim Element	<u>Mgrdechian</u>
<p>[6] The method of claim 1 wherein the further information relates to an e-commerce transaction between an entity associated with the first wireless device and another entity associated with the second wireless device.</p>	<p><i>See</i> [1].</p> <p>Mgrdechian discloses that the further information relates to an e-commerce transaction between an entity associated with the first wireless device and another entity associated with the second wireless device (e.g., “use of the service...for the electronic commerce applications including micropayments. Micropayments are prepaid accounts that may be used for low dollar amount purchases.”; “Profiles...may include...any items or services for sale”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.d].</p> <p>In addition, Mgrdechian discloses that its system is used for “electronic commerce applications including micropayments” between wireless devices (e.g., devices A and B). Mgrdechian, 15:11-15. Device’s B profile returned to device A includes “items or services for sale” by the user of device B, which are then purchased using a “micropayment” sent from device A to device B through the server. <i>Id.</i>, 21:6-8, 15:11-15.</p> <ul style="list-style-type: none"> • 15:11-15 (“<i>[U]se of the service and/or hardware for the electronic commerce applications including micropayments. Micropayments are prepaid accounts that may be used for low dollar amount purchases.</i>”) • 21:6-8 (“<i>Profiles 1108A-B may include...links to...any items or services for sale.</i>”) • <i>See also</i> 14:49-55, 15:25-42. <p>Williams ¶¶129-131.</p>
<p>[7.pre] A first wireless</p>	<p>Mgrdechian discloses a first wireless communication device (e.g., “first wireless device,” “device A”).</p>

Claim Element	<u>Mgrdechian</u>
communication device comprising:	<p><i>See</i> [1.pre]. Williams ¶¶132-133.</p>
<p>[7.a] a first receiver for communication over a short range wireless communication link, to receive a first unique wireless identifier from a second wireless device using a peer-to-peer protocol over the short range wireless communication link;</p>	<p>Mgrdechian discloses the first wireless device comprising a first receiver (<i>e.g.</i>, “Antenna 1301 is coupled to RF circuitry 1302” “for implementing ... a local wireless protocol”) for communication over a short range wireless communication link (<i>e.g.</i>, <i>see</i> [1.a]), to receive a first unique wireless identifier from a second wireless device using a peer-to-peer protocol over the short range wireless communication link (<i>e.g.</i>, <i>see</i> [1.a]).</p> <p><u><i>E.g., Mgrdechian:</i></u> <i>See</i> [1.a].</p> <p>In addition, Mgrdechian discloses that each wireless device, such as device A, includes a Bluetooth receiver for “receiving” RF signals from other wireless devices according to the Bluetooth protocol. Mgrdechian, 21:65-22:12, Figs. 8, 13. At minimum, as discussed in §IX.A.1, it would have been obvious to use a short range wireless communication receiver in device A to advantageously communicate with proximate wireless devices, as discussed in [1.a]. Williams ¶136.</p> <ul style="list-style-type: none"> • 21:65-22:12 (“Wireless device 1300 includes an <u>antenna 1301 for receiving and transmitting wireless signals, such as RF signals. Antenna 1301 is coupled to RF circuitry 1302. RF circuitry 1302 receives...the RF signals...RF circuitry 1302 may include analog and digital circuits for implementing multiple wireless technologies such as a local wireless protocol (e.g., Bluetooth, 802.11 or Zigbee) and a wireless phone technology....</u>”) • Fig. 13:

Claim Element	<u>Mgrdechian</u>
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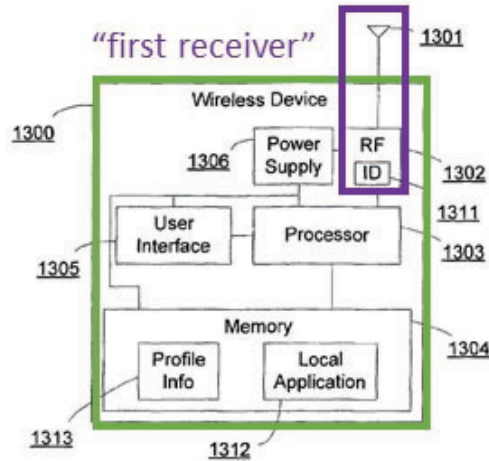


Fig. 13

“wireless communication device ”

Williams ¶¶134-136.

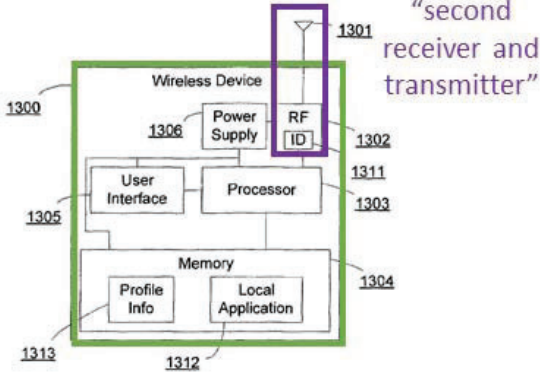
[7.b] a second receiver and transmitter, for communicating over a second communication link using a protocol different from the peer-to-peer protocol used on the short range wireless communication link,

Mgrdechian discloses the first wireless device comprising a second receiver and transmitter (e.g., “Antenna 1301 is coupled to RF circuitry 1302” “for implementing... wireless phone technology”), **for communicating over a second communication link** (e.g., communicating over “wireless network 340 (e.g., a wireless phone network) and the Internet 350”) **using a protocol different from the peer-to-peer protocol used on the short range wireless communication link** (e.g., see [1.b]).

E.g., Mgrdechian:

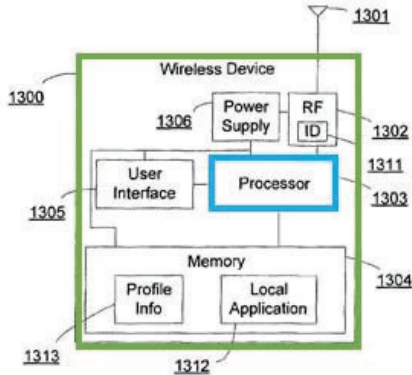
***See* [1.b], [7.a].**

In addition, **Mgrdechian** discloses that the “RF circuitry” in device A implements a “wireless phone technology” as well—enabling the antenna and RF circuitry to function as a cellular network receiver and transmitter to communicate with the server. Mgrdechian, 21:65-22:12, Figs. 8, 13. At minimum, as discussed in §IX.A.1, it

Claim Element	<u>Mgrdechian</u>
	<p>would have been obvious to use a cellular network receiver and transmitter in device A to advantageously communicate with the server, as discussed in [1.b]. Williams ¶139.</p> <ul style="list-style-type: none"> • 21:65-22:12 (“Wireless device 1300 includes an <i>antenna 1301 for receiving and transmitting wireless signals, such as RF signals. Antenna 1301 is coupled to RF circuitry 1302.</i> RF circuitry 1302 receives...the RF signals...<i>RF circuitry 1302 may include analog and digital circuits for implementing...a wireless phone technology (e.g., an analog or digital cellular technology, CDMA, PCS or GSM).</i>”) • Fig. 13:  <p style="text-align: center;">Fig. 13 “wireless communication device”</p> <p>Williams ¶¶137-139.</p>
<p>[7.c] and to send the first unique wireless identifier to a server over the second communication link;</p>	<p>Mgrdechian discloses the transmitter (e.g., see [7.b]) to send the first unique wireless identifier to a server over the second communication link (e.g., see [1.c]).</p> <p><u>E.g., Mgrdechian:</u> See [1.c], [7.b], [7.a].</p>

Claim Element	<u>Mgrdechian</u>
	Williams ¶¶140-141.
[7.d] and to receive further information from the server over the second communication link,	<p>Mgrdechian discloses the second receiver (e.g., see [7.b]) to receive further information from the server over the second communication link (e.g., see [1.d]).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.d], [7.b], [7.a].</p> <p>Williams ¶¶142-143.</p>
[7.e] the further information related to an entity or object associated with the second wireless device, the further information depending upon information parameters for a service account associated with the second wireless device;	<p>Mgrdechian discloses the further information related to an entity or object associated with the second wireless device, the further information depending upon information parameters for a service account associated with the second wireless device (e.g., see [1.e], profile is associated with device B and its ID).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.e].</p> <p>In addition, Mgrdechian discloses that the profile information stored on the server is associated with device B's identifier, and consequently, device B.</p> <ul style="list-style-type: none"> • 11:53-57 (“[R]emote computer 360 may use <u>device IDs to access profile information</u> (e.g., for registered users of a service)...”) • See also 8:5-14. <p>Williams ¶¶144-145.</p>
[7.f] the first receiver receiving a second unique identifier from one of the second wireless device and a third wireless device using the	<p>Mgrdechian discloses the first receiver (e.g., see [7.a]) receiving a second unique identifier from ... a third wireless device using the peer-to-peer protocol over the short range wireless communication link (e.g., see [1.f]).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.f], [7.a].</p>

Claim Element	<u>Mgrdechian</u>
peer-to-peer protocol over the short range wireless communication link;	Williams ¶¶146-147.
[7.g] and a processor for comparing of the first unique identifier and the further information to the second unique identifier, and in response to said comparing, suppressing, subsequent to the second receiving step, sending of the second unique identifier to the server.	<p>Mgrdechian discloses the first wireless device comprising a processor (e.g., “processor”) for comparing of the first unique identifier and the further information to the second unique identifier, and in response to said comparing, suppressing, subsequent to the second receiving step, sending of the second unique identifier to the server (e.g., see [1.g]).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.g].</p> <p>In addition, Mgrdechian discloses that device A includes a “processor” for “processing” and “controlling” information that performs the comparison step. Mgrdechian, 21:65-22:26, Fig. 13.</p> <ul style="list-style-type: none"> • 21:65-22:26 (“FIG. 13 is an example of a wireless device... <u>Processor 1303 may execute instructions for controlling the flow and processing of information between RF circuitry 1302, memory 1304 and user interface 1305...</u>”) • Fig. 13:

Claim Element	<u>Mgrdechian</u>
	 <p style="text-align: center;">Fig. 13 “wireless communication device”</p> <p>Williams ¶¶148-149.</p>
<p>[8] The device of claim 7 wherein the second receiver does not receive further information from the server if the server determines that a unique identifier for the second wireless device is not current.</p>	<p><i>See</i> [7].</p> <p>Mgrdechian discloses that the second receiver (e.g., see [7.b]) does not receive further information from the server if the server determines that a unique identifier for the second wireless device is not current (e.g., see [2]).</p> <p><i>See</i> [2], [7.b].</p> <p>Williams ¶¶150-151.</p>
<p>[9] The device of claim 7 wherein the second communication link is provided by a wide area wireless network selected from the group</p>	<p><i>See</i> [7], [3].</p> <p>Williams ¶¶152-153.</p>

Claim Element	<u>Mgrdechian</u>
<p>consisting of CDMA (IS-2000), GSM, W-CDMA, WiMax, and UMTS.</p>	
<p>[10] The device of claim 7 wherein the short range wireless communication link is selected from the group consisting of Bluetooth, RFID, Wi-Fi, and Ultra-Wide-Band (UWB).</p>	<p><i>See</i> [7], [4]. Williams ¶¶154-155.</p>
<p>[12] The device of claim 7 wherein the further information relates to an e-commerce transaction between an entity associated with the first wireless device and another entity associated with the second wireless device.</p>	<p><i>See</i> [7], [6]. Williams ¶¶156-157.</p>
<p>[15] The method of claim 1 wherein a further action further comprises: displaying on a display of the first wireless device, at least a portion of</p>	<p><i>See</i> [1]. Mgrdechian discloses that a further action further comprises displaying on a display of the first wireless device, at least a portion of stored further information, the stored further information having been previously determined as a result of previous detections of the first unique identifier (e.g., “computer system 360 may</p>

Claim Element	<u>Mgrdechian</u>
<p>stored further information, the stored further information having been previously determined as a result of previous detections of the first unique identifier.</p>	<p>send...profile information associated with [device B's] ID back to the initiating wireless device (e.g., Device A), and the profile information...[is] stored internally," "display a list of previously saved profiles").</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.d].</p> <p>In addition, Mgrdechian discloses that device A "store[s] internally" device B's and C's profile information received from the server, as discussed in [1.d]. Mgrdechian, 12:18-26. Device A subsequently displays the "saved profiles" when desired by the user of device A (i.e., user A). <i>Id.</i>, 20:56-21:8, Fig. 11.</p> <ul style="list-style-type: none"> • 12:18-26 ("<u>[C]omputer system 360 may send some or all of the profile information associated with each device ID back to the initiating wireless device (e.g., Device A),...Profile information for one or more targets may be stored internally on a wireless device.... Some or all of the profile information may be saved (e.g., as a complete profile or as a summary profile).</u>") • 20:56-21:8 ("The system may <u>display a list of previously saved profiles</u> at 1107, from which a user may select the complete profile and obtain profiles 1108A-C.") • Fig. 11:

Claim Element	<u>Mgrdechian</u>
	<p style="text-align: center;">Fig. 11</p>
<p>[17] The method of claim 15 wherein the step of receiving further information from the server is not performed if the server determines that an additional unique identifier associated with a user of the first wireless device is not authorized to</p>	<p>Williams ¶¶158-160.</p> <p>See [15].</p> <p>Mgrdechian discloses that the step of receiving further information (e.g., see [1.d]) from the server is not performed if the server determines that an additional unique identifier associated with a user of the first wireless device (e.g., device A's "unique" ID) is not authorized to receive the information (e.g., "profile information of [device A retrieved using its ID] may be compared to [device B's] filter parameters, and [device A] may be denied access to [device B's] profile if [device A's] profile information does not satisfy the target user's filter parameters").</p>

Claim Element	<u>Mgrdechian</u>
receive the information.	<p><u><i>E.g., Mgrdechian:</i></u> <i>See [1.d]-[1.e].</i></p> <p>In addition, Mgrdechian discloses using the “device IDs of both the target [<i>e.g.</i>, device B] and the initiating [<i>e.g.</i>, device A] devices to perform filtering.” Mgrdechian, 13:50-14:8, 14:16-26, 19:13-22. The server uses device B’s ID to retrieve device B’s “filter parameters” and compares that information with device A’s profile information, which is retrieved using its ID. <i>Id.</i> Upon the server determining that there is no match or that device A is denied access to device B’s information, device B’s profile information is “filtered out” and not sent to device A. <i>Id.</i>, 13:50-14:8.</p> <ul style="list-style-type: none"> • 13:50-14:8 (“FIGS. 7A-B illustrate filtering based on profile information.... Some applications may use the device IDs of both the target and the initiating devices to perform filtering. For example,...a query using the device IDs is generated, and at 703 profile information and filter parameters associated with the device IDs are retrieved. At 704, the filter parameters are applied to the profile information. For example,...the profile information of an initiating user may be compared to the target’s filter parameters, and the initiating user may be denied access to the target’s profile if the initiating user’s profile information does not satisfy the target user’s filter parameters....”) • 16:16-19 (“[W]ireless device IDs 813 and 823 are unique identifications.”) • <i>See also</i> 14:42-45. <p>Williams ¶¶160-163.</p>

Claim Element	<u>Mgrdechian</u>
<p>[19] The method of claim 1 or claim 18 wherein the further information relates to the second unique identifier, and is used to reduce the amount of additional information needed from the server to complete a predetermined next action.</p>	<p><i>See</i> [1].</p> <p>Mgrdechian discloses that the further information (e.g., see [1.d]) relates to the second unique identifier (e.g., see [1.f], device C’s ID), and is used to reduce the amount of additional information needed from the server to complete a predetermined next action (e.g., see [1.g], “Such [saved] profile information may be useful if the initiating user desires to contact such target at a later time”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.d], [1.f]-[1.g].</p> <p>In addition, Mgrdechian discloses that device C’s profile, received from the server and saved locally on device A removes the need to request the profile from the server when device C comes within range of device A (see [1.g]), and is “useful” when device A’s user “desires to contact” device C using a “pre-constructed message” (a predetermined next action), because it removes the need to contact the server to get the contact information. <i>Id.</i>, 12:18-37, 5:31-35.</p> <ul style="list-style-type: none"> • 5:31-35 (“<u>[P]re-recorded or customized messages stored on Device A</u> or stored on the server. Although these <u>messages may be sent directly from Device A to Device B</u>, these messages may also be delivered to User B by the server.”) • 12:18-37 (“<u>Profile information for one or more targets may be stored internally on a wireless device</u>”)...<u>Such profile information may be useful if the initiating user desires to contact such target at a later time....sending message information may include...sending a saved message (e.g., selecting from available pre-constructed message)</u>”) • <i>See also</i> 15:44-16:2.

Claim Element	<u>Mgrdechian</u>
	Williams ¶¶164-166.
<p>[21] The method of claim 1 or claim 18 wherein the further information in the first wireless device includes a list of identifiers.</p>	<p><i>See</i> [1].</p> <p>Mgrdechian discloses that the further information (e.g., see [1.d]) in the first wireless device includes a list of identifiers (e.g., device B’s ID and device C’s ID; “retrieve profiles,” “other identifiers of users within a specified range of User A”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.d], [19].</p> <p>In addition, Mgrdechian discloses the server sending to device A the profile information, including identifiers, for each device within one hop of device B (including device C). Mgrdechian, 7:19-21, 8:5-14, 20:1-47. Profile information also includes identifiers for a list of friends. <i>Id.</i>, 11:34-52. As discussed in §IX.A.1, at minimum it would have been obvious to advantageously include corresponding identifiers in the list of friends in profile information (consistent with Mgrdechian’s goal to connect mutual friends). <i>Id.</i>, 11:48-52; Williams ¶169.</p> <ul style="list-style-type: none"> • 6:54-56 (“[A] business or advertiser may <i>retrieve profiles</i> and forward information or advertisements to such user’s accounts.”) • 7:19-21 (“The response will be in the form of images or <i>other identifiers of users within a specified range of User A.</i>”) • 11:46-52 (“<i>Corresponding mutual friend information</i> may be passed on to the wireless devices <i>as part of the profile information.</i>”) • 20:1-47 (“If the system is programmed to return all users active within one hop, <i>the system may automatically use device C’s ID and return</i>

Claim Element	<u>Mgrdechian</u>
	<p><i>information associated with device C's ID to device A.</i>")</p> <ul style="list-style-type: none"> • <i>See also</i> 8:5-14, 11:34-40, Figs. 7A, 10. <p>Williams ¶¶167-169.</p>
<p>[32] The method of claim 1 wherein said step of receiving a specific unique identifier using a peer-to-peer protocol over a short range wireless communication link further comprising detecting the specific unique identifier from the second wireless device as a broadcast unique identifier, without establishing a two way connection between the first and second devices using the peer-to-peer protocol.</p>	<p><i>See</i> [1].</p> <p>Mgrdechian discloses said step of receiving a specific unique identifier using a peer-to-peer protocol over a short range wireless communication link (e.g., see [1.a]) further comprising detecting the specific unique identifier from the second wireless device as a broadcast unique identifier, without establishing a two way connection between the first and second devices using the peer-to-peer protocol (e.g., “a device may continuously or intermittently broadcast its ID and/or other information without having received an inquiry”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.a].</p> <p>In addition, Mgrdechian discloses that device B can operate in broadcast mode where it “broadcast[s] its ID” for detection by any device in the vicinity (e.g., device A) without having first established a connection with those devices (e.g., “without having received an inquiry”). Mgrdechian, 6:59-61.</p> <p>Williams ¶¶170-172.</p>
<p>[33] The method of claim 32 wherein said using a peer to per [sic] protocol over a short range link further comprises:</p>	<p><i>See</i> [32].</p> <p>Mgrdechian discloses that said using a peer to peer protocol over a short range link further comprises: transporting said specific unique identifier from the second wireless device to the first wireless device without the use of any wired connection (e.g., see [1.a], “Bluetooth”).</p>

Claim Element	<u>Mgrdechian</u>
transporting said specific unique identifier from the second wireless device to the first wireless device without the use of any wired connection.	<p><u>E.g., Mgrdechian:</u> <i>See [1.a].</i></p> <p>In addition, Mgrdechian discloses that devices A receives device B’s ID via a “local wireless protocol,” such as “Bluetooth.” Mgrdechian, 10:10-15.</p> <p>Williams ¶¶173-174.</p>
[34] The method of claim 15 wherein an additional action includes: notifying the user of the first wireless device of proximity of the second wireless device or of proximity of the object or entity associated with the second device.	<p><i>See [15].</i></p> <p>Mgrdechian discloses that an additional action includes: notifying the user of the first wireless device of proximity of the second wireless device or of proximity of the object or entity associated with the second device (<i>e.g.</i>, “ Device A automatically queries other devices for their IDs...If any of the profiles match these preferences, an alert is sent to User A”).</p> <p><u>E.g., Mgrdechian:</u> <i>See [1.a], [1.d].</i></p> <p>In addition, Mgrdechian discloses that upon detection of the “presence” of device B in vicinity of device A, device A is “automatically” notified of device B’s “presence.” Mgrdechian, 6:44-50, 15:1-10.</p> <ul style="list-style-type: none"> • 6:44-50 (“Device A automatically queries other devices for their IDs.... <i>If any of the profiles match these preferences [of User A], an alert is sent to User A to indicate the presence of a person-of-interest.</i>”) • <i>See also</i> 7:33-41, 15:1-10 <p>Williams ¶¶175-177.</p>
[39.pre] The method of claim	<p><i>See [1].</i></p> <p>Williams ¶¶178-179.</p>

Claim Element	<u>Mgrdechian</u>
1 wherein the first receiving step further comprises:	
[39.a] receiving visual identification information as part of the further information received from the server;	<p>Mgrdechian discloses receiving visual identification information as part of the further information (<i>e.g.</i>, <i>see</i> [1.d]) received from the server (<i>e.g.</i>, “Once Device A has received images of the neighboring users from the server”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.d].</p> <p>In addition, Mgrdechian discloses that “profile information” for devices B and C, returned by the server to device A for display, includes “images of the users associated with the...IDs.” Mgrdechian, 11:59-64, 12:18-26.</p> <ul style="list-style-type: none"> • 5:21-30 (“Once Device A has <i>received images of the neighboring users from the server...</i>, <i>User A can scroll through them</i> to uniquely select the person with whom they are attempting to communicate or whose profile they wish to view.”) • 11:57-64 (“[R]emote computer 360 may transmit profile information back to the initiating device. Once the initiating device has received images of the users associated with the device IDs from the remote computer, the images may be displayed....”) • See also 12:18-26. <p>Williams ¶¶180-182.</p>
[39.b] displaying the visual identification information on a	<p>Mgrdechian discloses displaying the visual identification information on a display of the first wireless device (<i>e.g.</i>, “initiating device may...display the images to the user of the initiating device”).</p>

Claim Element	<u>Mgrdechian</u>
display of the first wireless device;	<p><i>See [39.a].</i></p> <p>Williams ¶¶183-184.</p>
[39.c] receiving input from a user of the first wireless device confirming the displayed visual identification information matches an object or entity in proximity to the user of the first wireless device; and	<p>Mgrdechian discloses receiving input from a user of the first wireless device confirming the displayed visual identification information matches an object or entity in proximity to the user of the first wireless device (e.g., “User A can scroll through them to uniquely select the person with whom they are attempting to communicate or whose profile they wish to view”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See [39.a]-[39.b].</i></p> <p>In addition, Mgrdechian discloses that user A “initiate[s] a scan [for nearby devices such as devices B and C] when in visual contact with another user” and decides whether to contact users B and/or C based on “observation of their real-world behavior.” Mgrdechian, 9:13-33, 13:3-18. Thus, when user A receives user B’s and/or user C’s images in response to a “scan” performed when they are in vicinity of user A and then selects user B and/or user C for communication, it is a confirmation that users B and/or C are in proximity of user A. <i>Id.</i>, 5:21-30, 13:3-18.</p> <ul style="list-style-type: none"> • 5:21-30 (“<u>User A can scroll through them to uniquely select the person with whom they are attempting to communicate or whose profile they wish to view.</u> Upon selection of this person, Device A may upload the request via the cellular network to the server....”) • 9:13-33 (“The present invention...provides <u>users with the ability to select and learn about people they wish to contact based first on the observation of their real-world behavior</u>”)

Claim Element	<u>Mgrdechian</u>
	<ul style="list-style-type: none"> • 13:3-18 (“[A]_user may <i>initiate a scan when in visual contact with another user,</i>”) <p>Williams ¶¶185-187.</p>
<p>[39.d] sending a message to the server over the second wireless link indicating the confirmation.</p>	<p>Mgrdechian discloses sending a message to the server over the second wireless link indicating the confirmation (e.g., “Upon selection of this person, Device A may upload the request via the cellular network to the server”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [39.c].</p> <p>In addition, Mgrdechian discloses that device A, upon receiving a selection of user B’s and/or user C’s image, “upload[s] the request via the cellular network to the server,” enabling user A to receive more information and initiate communication with user B and/or user C.</p> <p>Mgrdechian 5:21-30.</p> <p>Williams ¶¶188-190.</p>

B. Ground 3: Mgrdechian in View of Kaplan Renders Obvious All Challenged Claims

To the extent it is argued that additional disclosure of “comparing the first unique identifier received in the first receiving step and (b) said further information with (c) the second unique identifier received in the second receiving step” (Element [1.g]) and “comparing of the first unique identifier and the further information to the second unique identifier” (Element [7.g]) is required, these limitations are rendered

obvious in further view of **Kaplan**. See §§IX.A, IV.B.2 (listing grounds). Williams ¶192.

Kaplan describes “a communication system...that enables automated retrieval of caller ID picture information and associate[ed]...contact information, while still allowing security control over information or images that are sent to the requesting device.” Kaplan, Abstract, 2:16-20. **Kaplan’s** communication system comprises wireless devices and a server. Kaplan, 3:47-55, Fig. 1. When a wireless device receives caller ID contact information from another device, “processor 27” of the wireless device first checks whether “the caller ID contact information” exists in “locally stored contact information” and whether “there is a locally stored picture associated with the locally stored contact information” (previously received from the server). Kaplan, 3:58-4:8, 11:40-12:12, Fig. 4. If there is an associated locally stored picture, “then wireless device displays both the caller ID contact information and [the associated] picture on wireless device display....However, if the wireless device finds no locally stored contact information...or...no locally stored image associated with locally stored contact[, the] wireless device requests download of remotely stored caller ID contact image data and picture” from “picture server 38.” Kaplan, 3:53-55, 3:58-4:8, 11:40-12:12, Figs. 1, 4. If “the wireless device is authorized to receive the picture,” the server sends the picture to the requesting device. Kaplan, 2:16-31. “Upon receiving...the requested caller ID data or image files [from picture

server 38], the wireless device updates the locally stored contacts...and the newly received information is ready for display either during the current call, or the next time a call carrying the same caller ID message is received.” *Id.*; *see also* Kaplan, 5:36-63, 7:16-8:30, 9:1-8, 12:7-12. Williams ¶¶191-195.

A POSITA would have found it advantageous to apply **Kaplans’s** teachings in implementing Mgrdechian’s system of facilitating communication between two devices via a remote server. Williams ¶¶198-199. Like Mgrdechian, **Kaplan** is in the same field and is analogous art to the ’913, namely wireless communication systems. *E.g.*, Kaplan, Abstract, 2:16-31, Fig.1; Williams, ¶196. **Kaplan** is also pertinent to the alleged problem(s) identified in the ’913 of a “lack of an independent third party to facilitate the services required for a secure proximity based mobile electronic transaction.” *E.g.*, ’913, 2:44-48; Kaplan, 4:9-37, 7:7-15, 12:26-48, cl. 1; Williams ¶197. For example, **Kaplan** discloses that “a user may set security and distribution rules on his or her own picture and contact information” “to prevent unauthorized downloading” from the server. Kaplan, 4:9-37, 12:26-48.

While a POSITA would have understood **Mgrdechian** discloses a wireless device not requesting profile information from a server for a received identifier where the profile is already saved on the device (*see* §§IX.A.2.[1.g], [7.g]), **Kaplan** expressly discloses a wireless device comparing ID information received from another wireless device to the information “locally stored” in the device (as well as

its associated ID) to determine whether there is any locally-stored information (e.g., a picture) associated with the newly-received ID, or whether that information needs to be requested from the server. Kaplan, 3:53-55, 3:58-4:8, 11:61-12:12, Figs. 1, 4. A POSITA would have been motivated to apply **Kaplan's** teachings to search for locally-stored information associated with a received identifier before requesting the information from a server in implementing **Mgrdechian's** wireless device such that device A compares device's C's identifier received from device C to the locally-saved profile of device C as well as its identifier to advantageously save computing resources by requesting only profiles from the server not already saved to the device as taught by Mgrdechian. Mgrdechian, 15:44-16:2; *see* §§IX.A.2.[1.g], [7.g]; Williams ¶¶198-199. Reducing information requested from the server saves computing resources, wireless bandwidth, and battery life while ensuring that users still get the most relevant information about entities and devices in proximity. Mgrdechian, 15:44-16:2; Williams ¶199.

Accordingly, a POSITA would have found it routine, straightforward, and advantageous to apply **Kaplan's** teachings of comparing received identifiers with locally stored identifiers and content and suppressing unneeded requests in implementing **Mgrdechian's** "search[ing] for saved profiles" functionality, and would have known that such an application (yielding the claimed limitations) would predictably work and provide the expected functionality. Williams ¶200.

C. Grounds 4-5: Mgrdechian In View Of Gujar (Ground 4) And In Further View Of Kaplan (Ground 5) Renders Obvious All Challenged Claims

To the extent it is argued that additional disclosure of “comparing the first unique identifier received in the first receiving step...with (c) the second unique identifier received in the second receiving step” (Element [1.g]) and “comparing of the first unique identifier...to the second unique identifier” (Element [7.g]) is required (*e.g.*, to the extent the comparison to the “further information” must be separate from the comparison to the “first unique identifier”), or “a first receiver for communication over a short range wireless communication link” (Element [7.a]), and “a second receiver and transmitter, for communicating over a second communication link” (Element [7.b]) is required, these limitations are rendered obvious in further view of **Gujar**. *See* §§IX.A-B, IV.B.2 (listing grounds). Williams ¶¶202, 205.

Gujar generally relates to a wireless communication between “electronic tags” and “tag readers” connected to a computer network for allowing tracking of objects to which the electronic tags are attached. *E.g.*, **Gujar**, 1:6-10, 6:6-12, 6:41-51, Figs. 1, 4. Specifically, **Gujar** discloses a “reader” device comparing a newly received “unique identification number” for an “electronic tag[]” with a previously received “unique identification number” to determine whether they are the “same,” such that subsequent receptions of the same identifier within a predefined time

period can be “mark[ed]...as redundant” and not transmitted to a server. Gujar, 3:47-49, 7:44-47, 14:51-15:24, Figs. 6-7. Williams ¶¶201-202.

A POSITA would have been motivated, and would have found it advantageous, to apply **Gujar’s** teachings of comparing identifiers to suppress transmission of “redundant” identifier “look up” requests to the server in implementing **Mgrdechian’s** wireless devices, such that when device A receives device C’s identifier, device A compares that to the previously received identifier from device B to determine if the identifier is redundant to advantageously reduce the number of transmissions sent by a wireless device within a predefined time period. *See* §§IX.A.2.[1.g], [7.g], IX.B; Williams ¶203. This beneficially conserves wireless bandwidth and reduces energy consumption of the wireless device and advances **Mgrdechian’s** goal of minimizing information requests to the server. *Mgrdechian*, 15:44-16:2; 20:51-21:21, Fig. 11. Williams ¶203. Applying **Gujar’s** teachings of comparing identifiers to suppress transmission of “redundant” identifier “look up” requests to the server in implementing **Mgrdechian’s** wireless devices would be nothing more than applying known methods to yield the predictable result of comparing received identifiers to previously received identifiers within a predefined time and sending only those identifiers to the server that the wireless device had not recently received within the predefined time. *E.g.*, *Mgrdechian*, 7:43-45, 8:1-4, 11:28-33; Williams ¶204.

In addition, **Gujar's** system includes separate transmitter/receiver systems for a cellular network link and a short-range link (e.g., RFID). *Gujar*, 2:23-29, 10:66-11:10, Fig. 2. **Gujar** teaches the RFID radio has “transmitter and receiver components.” *Gujar*, 2:41-50, 3:4-6. **Gujar** also teaches the cellular network radio has separate “wireless network transceivers for communication with a computer network.” *Gujar*, 2:23-29, 9:6-21, 10:66-11:10, Fig. 2.

A POSITA also would have been motivated, and would have found it advantageous, to apply **Gujar's** implementation teachings of wireless devices including multiple transmitters/receivers used for different types of wireless communications in implementing **Mgrdechian's** wireless devices for the same reasons discussed in §IX.A.1, such that **Mgrdechian** uses separate receiver/transmitter pairs for Bluetooth and cellular communications. *Gujar*, 2:23-29, 2:41-50, 10:66-11:10, 13:16-25; *Mgrdechian*, Fig. 3A, 1:31-34, 3:13-25, 9:65-10:5; *see* §IX.A.2[7.a]-[7.b]; *Williams* ¶¶205-206. Indeed, **Mgrdechian** discloses that the devices communicate over both “a cellular network” and “a local wireless protocol,” and that doing so requires more “circuits” than communicating over local wireless protocol alone. *Mgrdechian*, 16:34-42, 21:65-22:12, 22:36-47, 23:3-20. *Williams* ¶206.

It would have been obvious for a POSITA to apply **Gujar's** teachings described above in implementing **Mgrdechian's** wireless device. *Gujar*, 14:51-

15:24, Fig. 7; Mgrdechian, 20:56-21:8; Williams ¶¶203-204, 206-210. **Gujar**, like Mgrdechian, is in the same field and is analogous art to the '913—all are in the same field of art related to wireless communication systems. Gujar, 1:6-10, 6:6-12, 6:41-51, Figs. 1, 4; Williams ¶207. **Gujar** is also pertinent to the '913's stated need for “reduced power consumption and other resource consumption in the devices.” '913, 16:25-36; Williams ¶208. For example, **Gujar** discloses saving power and resources by preventing “redundant” identifier “look up[s]” by devices. *E.g.*, Gujar, Fig. 7.

Accordingly, a POSITA would have found it routine, straightforward, and advantageous to apply **Gujar's** teachings of comparing device identifiers and suppressing “redundant” identifier “look up” requests in implementing **Mgrdechian's** “search[ing] for saved profiles” functionality, and would have known that such an application (yielding the claimed limitations) would predictably work and provide the expected functionality. Williams ¶¶209-210.

D. Grounds 6-9: Mgrdechian In View Of Kulakowski (Ground 6), In Further View Of Kaplan (Ground 7), Gujar (Ground 8), or Kaplan and Gujar (Ground 9) Renders Obvious Claims 2 and 8

To the extent additional disclosure of “the server determines that a unique identifier for the second wireless device is not current” (claims [2], [8]) is required, these limitations are rendered obvious in further view of **Kulakowski**. *See* §§IX.A-C, IV.B.2 (listing grounds). Williams ¶212.

Kulakowski provides additional implementation detail concerning how identifiers are changed and compared at the server with received identifiers. **Kulakowski** generally relates to a “network security system” for enabling secure communications between a server and a client device during, inter alia, e-commerce transactions by using “covert identifiers” (that are “generated for [and consequently, unique to] the client device”) to detect “clones” that “mimic a real client device.” *E.g.*, **Kulakowski** ¶¶2, 6, 8, 17, Figs. 1, 4. Specifically, **Kulakowski** discloses a “covert identifier” that is “updated periodically” such that it may “remain fixed at a single value for days, weeks, or months of operation,” and the updated “covert identifier” is stored “by the client device and server.” **Kulakowski** ¶8, 47, 78, 95, Fig. 4. When the server receives a message from a client device, the server checks to see if the newly received identifier matches the stored covert identifier for that device. **Kulakowski** ¶48. If the message does not contain the covert identifier, the server may discontinue service to the clone. **Kulakowski** ¶¶48-49, 95 (“a periodic renewal process which may eliminate service to cloned client devices”). **Williams** ¶¶211-212.

A POSITA would have been motivated, and would have found it advantageous, to apply **Kulakowski**’s teachings of updating identifiers periodically and denying service to devices not using the updated identifier in implementing **Mgrdechian**’s secure communications system using “dynamic” device identifiers

such that the server detects whether the received identifier is not current to advantageously improve security by detecting cloned client devices. **Kulakowski** ¶¶8, 47, 49, 95; **Mgrdechian**, Figs. 3A, 7A, 1:31-34, 3:13-25, 5:1-3, 9:65-10:5, 13:50-14:8, 16:60-17:10; *see* §§IX.A.2.[2], IX.A.2.[8]; **Williams** ¶213. This would entail only a routine application of **Kulakowski's** implementation level detail to **Mgrdechian's** “dynamic” identifiers, which change and are thus monitored for validity. **Williams** ¶213.

It would have been obvious for a POSITA to apply **Kulakowski's** teachings described above in implementing **Mgrdechian's** “dynamic” device identifier. **Williams** ¶¶213. Like **Mgrdechian**, **Kulakowski** is in the same field and is analogous art to the '913, namely wireless communication systems. *E.g.*, **Kulakowski** ¶¶8, 85; **Williams** ¶214. **Kulakowski** is also pertinent to the alleged problem(s) identified in the '913 of a “need for the individuals to have a third trusted party to help facilitate the electronic transaction.” *E.g.*, '913, 2:2-3; **Kulakowski** ¶¶2, 6, 49; **Williams** ¶¶215. For example, **Kulakowski** discloses a server “determining whether the covert identifier matches a covert identifier for the client device stored at the server” for detecting clones. **Kulakowski** ¶¶2, 6, 49.

Accordingly, a POSITA would have found it routine, straightforward, and advantageous to apply **Kulakowski's** teachings of a server storing updated covert identifiers and comparing newly received identifiers to the stored covert identifiers

to determine whether there is a match in implementing **Mgrdechian's** "dynamic" identifiers, and would have known that such an application (yielding the claimed limitations) would predictably work and provide the expected functionality. Williams ¶¶216.

X. SECONDARY CONSIDERATIONS

There is no evidence in the prosecution history of this or any related application that any arguments regarding secondary considerations exist, let alone that any such evidence could overcome the strong showing of obviousness above or that there is a sufficient nexus to any of the Challenged Claims. *See generally*, Ex. 1002; *see also* Williams ¶¶34, 217-218. Indeed, as demonstrated by the prior art referenced herein, any purported problems, solutions or unexpected results in the '913 were already well known. Williams ¶218. For example, the alleged needs described in the specification do not have a nexus to the claims, which do not require, e.g., a "third trusted party," a "convenient, electronically secure, personally secure and anonymous method," "cross validat[ing] the identities of the individuals," or use "indoors." '913, 2:2-9. Nevertheless, to the extent PO argues that any of the claims satisfies unmet needs, the prior art already met these alleged needs for the reasons discussed in §IX. Williams ¶¶75-218. To the extent PO asserts the existence of any secondary considerations in its responses, Petitioner reserves the right to address any such evidence.

XI. CONCLUSION

Substantial, new, and noncumulative technical teachings have been presented for the Challenged Claims of the '913. All Challenged Claims are anticipated and, at minimum, rendered obvious for the reasons set forth above. There is a reasonable likelihood that Petitioner will prevail as to each of those claims. *Inter Partes* review of claims 1-4, 6-10, 12, 15, 17, 19, 21, 32-34, and 39 is accordingly requested.

Dated: June 1, 2020

/James L. Davis, Jr./
James L. Davis, Jr.

CERTIFICATE OF COMPLIANCE

Pursuant to 37 CFR §42.24(a) and (d), the undersigned hereby certifies that this Petition for Inter Partes Review complies with the type-volume limitation of 37 CFR §42.24(a)(i) because, exclusive of the exempted portions, it contains 13,948 words as counted by the word processing program used to prepare the paper.

Dated: June 1, 2020

/James L. Davis, Jr./

James L. Davis, Jr.

CERTIFICATE OF SERVICE

The undersigned certifies service pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(b) on the Patent Owner by FedEx of a copy of this Petition for *Inter Partes* Review and supporting materials at the correspondence address of record for the '913 patent:

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Courtesy copies of the same documents were also served at the following email addresses of record for Proxicom's litigation counsel for the subject patent in the district court litigation at the U.S. District Court for the Middle District of Florida, Case No. 6:19-cv-01886-RBD-LRH:

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