

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TARGET CORPORATION,

Petitioner,

v.

PROXICOM WIRELESS, LLC,

Patent Owner.

Case No. IPR2020-00977

U.S. Patent No. 8,369,842

PETITION FOR *INTER PARTES* REVIEW

TABLE OF CONTENTS

LIST OF EXHIBITS.....iii

I. INTRODUCTION1

II. MANDATORY NOTICES (§42.8).....5

A. Real Party-In-Interest5

B. Related Matters.....5

C. Lead and Back-Up Counsel and Service Information6

III. PAYMENT OF FEES7

IV. REQUIREMENTS FOR INTER PARTES REVIEW.....7

A. Grounds for Standing7

B. Identification of Challenge.....7

1. The Specific Art on Which the Challenge is Based8

2. Statutory Grounds on Which the Challenge is Based.....12

3. How the Challenged Claims Are Unpatentable.....12

V. THE '842 PATENT13

VI. PROSECUTION HISTORY15

VII. LEVEL OF ORDINARY SKILL.....17

VIII. CLAIM CONSTRUCTION.....17

IX. GROUNDS OF UNPATENTABILITY.....18

A. Grounds 1 and 2: Claims 1, 5, 9, 12, 14, 15, 22, and 24 Are Anticipated by Mgrdechian (Ground 1) And Rendered Obvious by Mgrdechian (Ground 2).....20

1. Overview of Mgrdechian21

2. Claim Chart—Mgrdechian.....27

B. Ground 3: Claims 12-14 Are Rendered Obvious By Mgrdechian in view of Swartz53

1.	Overview of Swartz and Motivation to Apply Swartz’s Teachings in Implementing Mgrdechian	53
2.	Claim Chart—Mgrdechian in view of Swartz	57
C.	Ground 4: Claim 22 Is Rendered Obvious by Mgrdechian in view of Kulakowski.....	60
1.	Overview of Kulakowski and Motivation to Apply Kulakowski’s Teachings in Implementing Mgrdechian.....	60
2.	Claim Chart—Mgrdechian in view of Kulakowski.....	62
X.	SECONDARY CONSIDERATIONS	65
XI.	CONCLUSION	66

LIST OF EXHIBITS

Ex. 1001	U.S. Patent No. 8,369,842 (“842”)
Ex. 1002	File History of U.S. Patent No. 8,369,842
Ex. 1003	Declaration of David Hilliard Williams (“Williams”)
Ex. 1004	U.S. Patent Application Publication No. 2005/0250552 (“Eagle”)
Ex. 1005	U.S. Patent No. 7,545,784 (“Mgrdechian”)
Ex. 1006	Reserved
Ex. 1007	U.S. Patent No. 6,837,436 (“Swartz”)
Ex. 1008- Ex. 1012	Reserved
Ex. 1013	International App. No. WO 2007/084973 (“Kulakowski”)
Ex. 1014- Ex. 1015	Reserved
Ex. 1016	<i>Lighting Science Group Corp. v. Nicor, Inc. et al.</i> , No. 6:16-cv-413-Orl-37GJK, Dkt. 98 (M.D. Fl. May 9, 2017)
Ex. 1017	<i>Lighting Science Group Corp. v. Leedarson Lighting Co. et al.</i> , No. 6:17-cv-826-Orl-37GJK, Dkt. 31 (M.D. Fl. Oct. 27, 2017)
Ex. 1018	<i>Automatic Mfg. Sys., Inc. v. Primera Tech., Inc.</i> , No. 6:12-cv-1727-Orl-37DAB, Dkt. 58 (M.D. Fl. Nov. 21, 2013)
Ex. 1019	<i>zIT Consulting GMBH v. BMC Software, Inc.</i> , No. 6:15-cv-1012-Orl-37KRS, Dkt. 63 (M.D. Fl. Mar. 17, 2016)
Ex. 1020	<i>Proxicom Wireless, LLC v. Target Corp.</i> , No. 6:19-cv-01886-RBD-LRH, Dkt. 56 (M.D. Fl. Feb. 28, 2020)

Ex. 1021	<i>Proxicom Wireless, LLC v. Macy's, Inc., et al.</i> , No. 6:18-cv-64-Orl-37GJK, Dkt. 94 (M.D. Fl. Feb. 12, 2019)
Ex. 1022	Reserved
Ex. 1023	U.S. Patent Application Publication No. 2005/0174975 (“Mgrdechian ’975”)
Ex. 1024- Ex. 1025	Reserved
Ex. 1026	Declaration of Crena Pacheco
Ex. 1027	Reserved
Ex. 1028	File History of U.S. Patent No. 8,370,955 (“’955 File History”)
Ex. 1029	File History of U.S. Patent No. 9,038,129 (“’129 File History”)
Ex. 1030- Ex. 1031	Reserved
Ex. 1032	<i>Proxicom Wireless, LLC v. Target Corp.</i> , No. 6:19-cv-01886-RBD-LRH, Dkt. 64 (M.D. Fl. May 22, 2020)

Pursuant to §§311-319 and §42,¹ Target Corporation (“Petitioner”) petitions for *inter partes* review (“IPR”) of claims 1, 5, 9, 12-15, 22, and 24 (“Challenged Claims”) of U.S. Patent 8,369,842 (“’842”) (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 ’842’s purported invention is the use of a “server” to “facilitate a transaction between” two entities associated with two wireless devices. ’842, Abstract. In particular, the server determines authentication information for one of the devices and authorizes the transaction or exchange in part based on location information. *Id.*; Williams ¶¶1-2, 39.

The ’842 admits that, prior to the alleged invention, wireless devices already were configured to use third parties to facilitate electronic transactions, including transactions conducted via the Internet. ’842, 1:57-2:2 (admitting “mobile electronic

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.

commerce has mostly allowed users to perform transaction with a remote party, such as purchasing an item on ebay (www.ebay.com)"). And the '842 admits that prior art systems already were using short range wireless communication, specifically RFID, to perform mobile payments. *Id.*, 1:63-66. Williams ¶¶5, 7, 40-41, 60.

The only purportedly novel element of the '842 claims is that the authorization provided by the server is based in part on location information associated with two devices. For example, independent claims 1 and 24 require the server to provide "authorization" based on "location information associated with" first and second wireless devices (Ex. 1002, 214, 216). For example, the location of both devices communicating via a short range wireless connection is known when one of the two devices (*e.g.*, a business) is in a fixed location. *See, e.g.*, '842, claim 8. But, as discussed herein, it was already well-known for servers to base authorization for transactions on location information, including by associating address and proximity information. Williams ¶¶42-58.

For example, **Mgrdechian** (Ex. 1005) discloses a known system for using a server to facilitate communications, including transactions, between communication devices. *E.g.*, Mgrdechian, 1:32-35, 5:4-7. As further discussed in §IX below, the server "authorize[s] or facilitate[s] information to be conveyed between the devices either directly or through one or more central servers." *Id.* 7:22-33. The server authorizes a user to exchange information "if the other user is operating a wireless

device *in the same area.*” *Id.*, 10:29-38. For example, Mgrdechian discloses one of the two devices communicating via Bluetooth as a business at a particular address. *Id.*, 6:50-58, 8:5-17. The exchange includes “micropayments” or other “electronic commerce applications.” *Id.*, 15:11-16. Williams ¶¶49, 52.

Mgrdechian further discloses a server determining authentication information relating to a device or entity. A server “retrieves information associated with” a business’s device’s “ID,” including profile information, e.g., an “image” of the business and “items or services for sale.” *E.g.*, Mgrdechian, 10:65-11:4, 11:28-33. Williams ¶53.

Thus, and as further explained below, **Mgrdechian** anticipates claims 1, 5, 9, 12, 14, 15, 22, 24 and at minimum renders these claims obvious. Williams ¶¶100, 103-176.

As to claim 13, and to the extent it is argued that further disclosure is required beyond **Mgrdechian** for claims 12 and 14, **Swartz** (Ex. 1007) discloses implementation details for electronic commerce transactions such as “home delivery” and awarding “loyalty points” based on customer purchases. Applied to implement **Mgrdechian**’s disclosed e-commerce transaction, Schwartz’s disclosure renders these claim obvious. *E.g.*, Swartz, Title; Abstract, 37:20-21, 40:50-60. Thus, as further explained below, **Mgrdechian** in view of **Swartz** renders obvious claims 12-14. Williams ¶¶177-186.

As to claim 22, **Kulakowski** (Ex. 1013) discloses changing the identifiers of devices used in electronic commerce transactions to guard against cloning, which renders this claim obvious when these teachings are applied to **Mgrdechian's** device identifiers. *E.g.*, **Kulakowski** ¶8. Thus, as further explained below, **Mgrdechian** in view of **Kulakowski** renders obvious claim 22. **Williams** ¶¶187-192.

As demonstrated herein, the prior art anticipates and/or renders obvious the Challenged Claims. At best, the Challenged Claims of the '842 are directed to an obvious combination of prior art elements combined according to known methods to yield predictable results. *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). The claimed elements and the claimed arrangement of elements were anticipated by **Mgrdechian** and/or rendered obvious by **Mgrdechian** alone or in view of **Swartz** or **Kulakowski**. At best, the combination amounts to nothing more than a “predictable use of prior art elements according to their established functions.” *Id.* at 417.

The USPTO did not apply **Mgrdechian**, **Swartz**, or **Kulakowski** or any other references providing analogous disclosures during prosecution of the '842. 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 '842, 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 '842 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
8,116,749	IPR2020-00978
9,161,164	IPR2020-00979
8,385,913	IPR2020-00980

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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. 001008-0037-656.

IV. REQUIREMENTS FOR INTER PARTES REVIEW

A. Grounds for Standing

Pursuant to §42.104(a), Petitioner certifies that the '842 is available for IPR. Petitioner is not barred or estopped from requesting IPR challenging the claims of the '842 on the grounds identified herein.

B. Identification of Challenge

Pursuant to §42.104(b), Petitioner requests IPR of claims 1, 5, 9, 12-15, 22, and 24 of the '842, and that the Board cancel the same as unpatentable. The '842 matured from U.S. Application 13/213,028 (filed 08/18/2011), and claims priority

through a continuation to U.S. Provisional Application 61/095,359 (filed 9/9/2008), and U.S. Provisional Application 61/095,001 (filed 9/8/2008).² Williams ¶¶4, 71-72.

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
Mgrdechian ³	1005	U.S. 7,545,784	2/10/2005	6/9/2009	102(e)
Swartz	1007	U.S. 6,837,436	11/21/2001	1/4/2005	102(b)
Kulakowski	1013	WO 2007/084973	1/19/2007	7/26/2007	102(b)

Although U.S. Patent Application Publication No. 2005/0174975 (“Mgrdechian ’975”) (**Mgrdechian’s** pre-grant publication) (Ex.1023) was cited in an Information Disclosure Statement (“IDS”) (Ex. 1002, 14, 132, 297), it was not applied to reject the claims during prosecution of ’842 (*id.*, 114-29). 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.

² Petitioner takes no position as to the propriety of the priority claims because the art presented herein predates the earliest possible filing of the ’842 patent. Petitioner reserves the right to challenge these priority claims.

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

1029, 141-67, 292-317), neither application warrants exercise of discretion under §325(d) as '955 and '129 are not parents of '842, have different claims, and were examined by different examiners.

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 '842 Challenged Claims:

wherein said further information comprises content identifying one or more merchants associated with the second unique identifier or information derived from the second unique identifier;

receiving a message from the first wireless device indicating a user selection of one of said one or more merchants;

receiving a message from the first wireless device indicating selection of input on the first wireless device to engage in a transaction with said selected merchant; and

sending an image of an entity associated with the first unique identifier or with an identifier or other data derived from the first unique identifier to a device associated with the selected merchant;

receiving a message from said device associated with the selected merchant indicating a confirmation that the image matches the entity associated with the first unique identifier, and to precede with further steps of said multistep electronic commerce 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 '842 Challenged Claims, the '955 prosecution is relevant to '842 only in that the applicant never succeeded in overcoming Mgrdechian '975 as to the canceled claims.

Additionally, '129 was filed January 18, 2013, less than one month before '842 issued, and '975 was first relied upon by the Examiner in '129 on October 25, 2013, after '842 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 '842 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 '842's prosecution, these citations did not identify any particular portions of the disclosures relevant to '842's claims, and the '842 examiner did not rely on **Mgrdechian** or Mgrdechian '975 during the '842 prosecution. Ex. 1002, 14, 18, 148. 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 '842. 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). Co-pending district court proceedings also do not warrant the exercise of discretion under §314(a). *See, e.g., Precision Planting, LLC v. Deere & Company*, IPR2019-01044, Paper 17, *9-18. 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 '842, 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) in addition to the claims asserted in the litigation, the petition challenges some claim(s) not asserted in the litigation; (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 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, 5, 9, 12,
2		103	14, 15, 22, 24
3	Mgrdechian in view of Swartz	103	12-14
4	Mgrdechian in view of Kulakowski	103	22

3. How the Challenged Claims Are Unpatentable

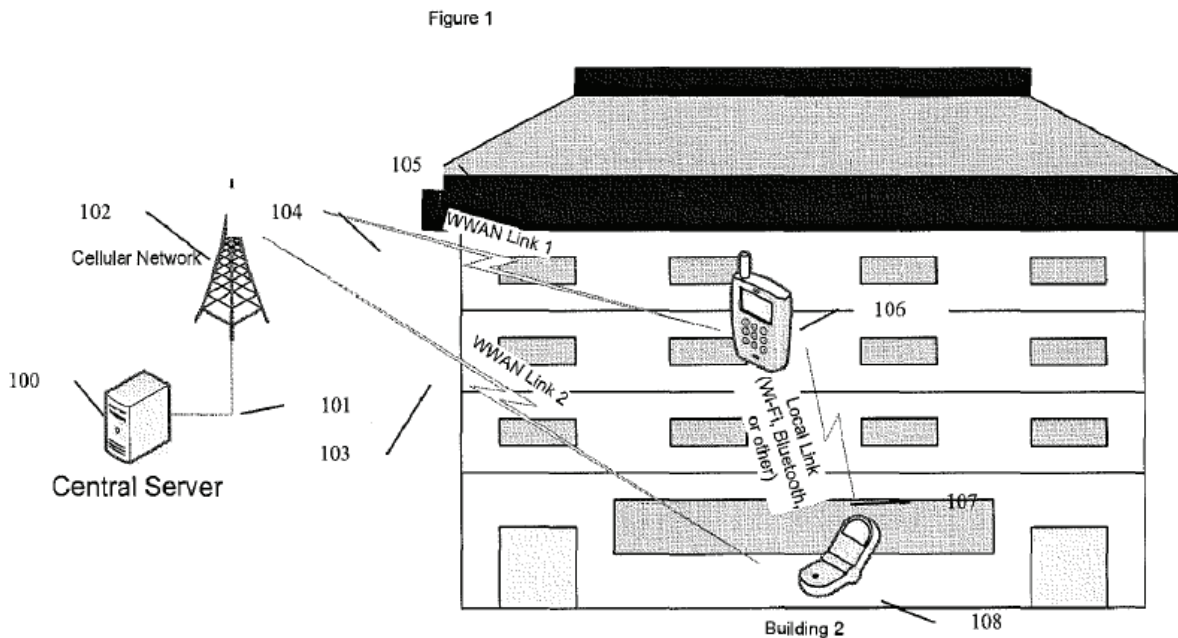
Petitioner provides the information required under §§42.104(b)(4)-(5) in §IX.

V. THE '842 PATENT

The '842 describes techniques for using a server to broker transactions or the exchange of information between wireless devices. '842, Abstract. Williams ¶¶6, 39-59. The background section of the '842 concedes that wireless devices, such as mobile phones, already had access to third party facilitation of electronic transactions, such as purchases on www.ebay.com. '842, 1:57-2:2. It also concedes that some mobile device applications already incorporated users' location information to provide additional capabilities, *id.*, 1:40-44 (GPS), and even that some mobile devices used short range wireless communication, such as RFID, to perform mobile payments, *id.*, 1:64-2:2. It concedes that mobile devices had access to "Bluetooth." '842, 1:28-39, 2:26-37. The '842 combines well-known third party facilitation of transactions with the well-known use of location information, and describes methods using a server to authorize a transaction based on location information associated with two devices. '842, Abstract. Williams ¶¶35, 40-42, 60.

The '842's embodiments are directed to some variant of the same general functionality: (1) a first device receives an identifier from a second device via a short-range connection; (2) the first device sends the received identifier to a server; (3) the server determines location information associated with the devices; (4) the server determines authentication information associated with the second device or associated entity; and (5) the server provides authorization to one of the devices

based at least in part on the received identifier, the authentication information, and the location information. For example, Figure 1 of the '842 shows that “a central server 100 is connected to devices 106 and 108” through a combination of the Internet, and a “cellular network 102.” ’842, 5:46-55. The devices are also able to communicate directly with each other via “a short range wireless link 107 such as a Bluetooth.” ’842, 6:35-43.



'842, Fig. 1; Williams ¶¶61-62. The '842 states that each wireless device searches for nearby devices and exchanges “wireless identifier[s]” using Bluetooth. *E.g.*, '842, 6:51-55. Williams ¶62.

Rather than the two devices exchanging additional information directly, the '842 uses a server to broker the transaction or exchange of additional information.

The '842 states that a first wireless device performs an identifier search and detects an identifier from a second wireless device. *E.g.*, '842, 11:31-34, 14:41-52. The first wireless device transmits this identifier to a “server.” '842, 11:30-39. The central server may determine location information associated with both devices, such as proximity information, GPS information, a stored address, or proximity to a device with a fixed location. *Id.* 12:26-32, 14:29-35, claim 8. The central server may then determine authentication information for the second device, such as “the name of the merchant, the merchant’s logo, a picture of the vendor, or their mobile shopping cart.” *Id.* 12:17-30. The '842 further discloses that the server authorizes transaction between the devices based on location information. *E.g.*, '842, 14:29-39. According to the '842, this arrangement allows the server to be used in “electronic commerce applications” and to “facilitate the purchas[e] of the goods or services” between the merchant and customer. *E.g.*, '842, 17:35-18:5. Williams ¶¶63-65.

VI. PROSECUTION HISTORY

U.S. Patent Application 13/213,028, which matured into the '842, was filed 08/18/2011. The originally-filed claims included the following limitations:

said server establishing location information associated with said first and said second wireless devices,

...

said server providing authorization to said first wireless device or said second wireless device to proceed with said transaction based at least in part upon...the proximity of said first and second wireless devices.

Ex. 1002, 65.

The Examiner issued a Non-Final Office Action on 5/3/2012 rejecting all claims as unpatentable over prior art references not at issue here termed “Holloway” and “Birch.” Ex. 1002, 114-28. In an Amendment filed 11/5/2012, the applicant amended claim 1 to recite determining authentication information relating to “an entity associated with said second wireless device,” and “transferring said authentication information between the server and the first wireless device.” *Id.*, 206.

The applicant argued that using “proximity” in authorization was the feature distinguishing the claims from the cited references Holloway and Birch. *Id.*, 214 (“Applicants’ claim, on the other hand, further requires that such authorization be based upon the proximity of the two devices....”), 216 (“Neither Holloway or Birch make any reference to incorporating proximity information in the authentication of a transaction between the two devices.”). Williams ¶¶3, 66.

The applicant further argued that the limitations added by amendment also required “proximity” of the two devices. *Id.*, 216-17 (“Holloway teaches such an approach as being used remotely from the first wireless device and used for ‘Internet purchases,’ rather than for purchases where a physical proximity based interaction

is utilized making the use of authentication information between the first wireless device and the server. In a generalized ‘Internet’ transaction, such as for Holloway, basing a discussion on *proximity of two devices* is clearly not useful.”).

A Notice of Allowance issued 11/30/2012. No reasons for allowance were provided, *id.*, 259-68, and the examiner entered an Examiner’s Amendment authorized via a telephone interview. Although no summary was filed and no reasons for the amendment stated, the amendment replaced the term “the proximity” with “the location information.” *Id.*, 65, 265-68. Williams ¶¶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 that would be used to construe the claim in a civil action under §282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art

and the prosecution history pertaining to the patent.” §42.100(b); Williams ¶¶21, 67. 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).

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

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 for the reasons discussed below. *See* Ex. 1032; Williams ¶¶67. While the Challenged Claims use a term of degree (e.g., “short range wireless connection”), the prior art relied on herein discloses the ’842’s examples of this term as shown in §IX.A below. *See, e.g.*, ’842, 2:64-3:2 (“short range radio communication standard capabilities such as *Bluetooth*”). Williams ¶¶68-70.

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

IX. GROUNDS OF UNPATENTABILITY

The ’842 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) determining location information; (4) authenticating the second wireless device based on the identifier; and (5) authorizing a transaction to proceed based on location information. Claims 1, 5, 9, 12-15, 22, and 24 are anticipated and, at minimum, all Challenged Claims are obvious in view of the prior art cited herein, as explained below. Williams ¶¶73-74, 101.

For example, **Mgrdechian** discloses a system for using a server to facilitate communications between Bluetooth-enabled devices. **Mgrdechian** discloses all the claimed features of '842 claims 1, 5, 9, 12, 14, 15, 22, and 24, including devices that exchange “identifiers” using Bluetooth. **Mgrdechian** also discloses a server that receives identifiers, establishes location information of the devices, authenticates the devices, and authorizes transactions and information exchanges based at least in part on location information. **Mgrdechian** also discloses or renders obvious additional limitations recited in the challenged dependent claims, such as selecting goods for purchase, receiving confirmation of the selection, delivering purchased goods, and changing identifiers without reuse. Williams ¶¶ 75-84, 100-102.

As to claim 13, **Mgrdechian** in view of **Swartz** renders this claim obvious. **Swartz** teaches e-commerce implementation details that would have been obvious to apply in implementing **Mgrdechian**'s e-commerce applications, such as crediting an award program upon purchase of goods or services and initiating delivery of the purchased good or service, as discussed in §IX.B. And as to claims 12 and 14, to the

extent it is argued that further disclosure is required beyond **Mgrdechian**, **Mgrdechian** in view of **Swartz's** e-commerce teachings renders obvious these claims as well, as discussed in §IX.B. Williams ¶¶85-93, 177-178.

Likewise, as to claim 22, to the extent it is argued that further disclosure is required beyond **Mgrdechian**, **Mgrdechian** in view of **Kulakowski** renders this claim obvious, as discussed in §IX.C. **Kulakowski's** 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. Williams ¶¶82, 94-99, 187-188.

As shown below, the cited prior art renders the Challenged Claims of the '842 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 '842. Williams ¶¶25-199.

A. Grounds 1 and 2: Claims 1, 5, 9, 12, 14, 15, 22, and 24 Are Anticipated by Mgrdechian (Ground 1) And Rendered Obvious by Mgrdechian (Ground 2)

As further set forth below, claims 1, 5, 9, 12, 14, 15, 22, and 24 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 claims 1, 5, 9, 12, 14, 15, 22, and 24 obvious. Williams ¶100.

1. Overview of Mgrdechian

Mgrdechian discloses a wireless communication system that allows for the “exchange of information between wireless devices” using a “server” for “electronic commerce applications including micro-payments.” *E.g.*, Mgrdechian, 1:31-34, 7:43-45, 10:48-56. The devices are used by customers (“individuals”) and “businesses,” and each device can assume the role of “Sender” or “Recipient.” *E.g.*, Mgrdechian, 6:20-29, 8:1-4. For example, a customer’s “wireless device[]” (also called “first wireless device” and “Device A”) and a “business[’s]” “wireless device[]” (also called “Device B”) communicate with each other using the server. *Id.*, 5:4-7, 9:40-53, 9:65-67, 14:49-55. An embodiment is shown in Fig. 3A:

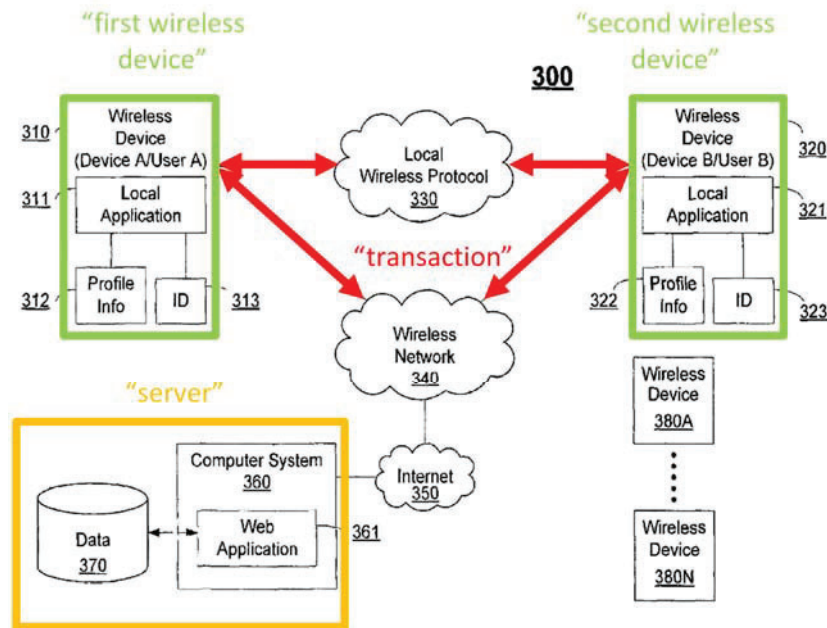


Fig. 3A

Mgrdechian, Fig. 3A; Williams ¶75.

Mgrdechian discloses that “the first wireless device” (e.g., a user’s device) receives a device identifier that is associated with the business’s wireless device. *E.g.*, Mgrdechian, 3:14-24, 8:1-4. The devices use a “local wireless protocol,” such as Bluetooth, to exchange device IDs. *E.g.*, Mgrdechian, 5:16-20, 10:10-15. The device IDs may be “static,” “dynamic or pseudo-random.” *E.g.*, Mgrdechian, 4:65-5:3. The first wireless device transmits the business’s wireless device’s ID to a server. *E.g.*, Mgrdechian, 5:4-7. Williams ¶76.

Mgrdechian also discloses that the server receives proximity information from multiple devices and correlates this information to build a database storing the relative locations of the devices. *E.g.*, Mgrdechian, 6:62-7:5, 20:35-43. Additionally, for devices that are in a fixed location, such as the business’s device, **Mgrdechian** discloses that the server knows the business’s “address” and determines the geographic location of both devices because the first wireless device is in “physical proximity” to the business’s device. *E.g.*, Mgrdechian, 8:5-14, 10:22-25. Williams ¶77

Mgrdechian further discloses retrieving additional information associated with the business’s wireless device including, *e.g.*, an “image” of the business and “items or services for sale.” *E.g.*, Mgrdechian, 5:21-30, 11:28-33, 12:18-23. By examining the picture or the items for sale, the customer can confirm the identity of

the business “with whom [the customer is] attempting to communicate.” *E.g.*, Mgrdechian, 11:59-64. Williams ¶79.

Indeed, **Mgrdechian** discloses that the server facilitates “electronic commerce” by transmitting “micropayments” associated with “items or services for sale” included in the business’s device profile. *E.g.*, Mgrdechian, 11:28-33, 15:11-15. As discussed above, **Mgrdechian** discloses a server that “send[s]...profile information associated with” the business’s “device ID back to the initiating wireless device” (the customer’s device), including those “items or services for sale.” *E.g.*, Mgrdechian, 11:28-33, 12:18-23. Using the initiating wireless device, the customer then selects an item or service for sale to purchase and sends a message to the server to be sent to the business’s device for the purchase. *E.g.*, Mgrdechian, 3:45-58, 11:28:33, 15:11-15. The server then authorizes a micropayment “to be conveyed between the devices...through [the] central server[]” to the business for the purchase. *E.g.*, Mgrdechian, 7:22-33, 15:11-15. As part of the authorization, the server uses the business’s device ID to determine where the message is being sent. *Id.*, 5:20-30, 7:22-33. The server also retrieves the business’s profile (the authentication information), which includes the business’s “filtering preferences.” *E.g.*, Mgrdechian, 3:45-58, 5:20-30, 7:22-33, 17:67-18:5. The server authorizes the proposed transmission based in part on the filtering preferences. *E.g.*, Mgrdechian, 13:50-14:3, 14:49-63, 17:67-18:6. In addition, the server only “allow[s] a

user...to...send a message to, another user...if the other user is operating a wireless device *in the same area*”—thus the authorization is also dependent on the location of the two devices. *E.g.*, Mgrdechian, 10:29-38. Williams ¶80.

To the extent it is argued that further disclosure of determining a physical location is required, **Mgrdechian** further discloses that the server determines location of both devices using “GPS information.” *E.g.*, Mgrdechian, 23:51-57, 24:14-25. **Mgrdechian** further discloses a GPS position and device IDs may be stored and processed to “facilitat[e] communication between users.” *Id.*, 23:56-67; Williams ¶77. While **Mgrdechian** does not expressly disclose a server determining the GPS position of the devices after receiving a device identifier, a POSITA would have been motivated to apply the teachings of both disclosed embodiments. Williams ¶78. A POSITA would have been motivated and found it routine, straightforward and advantageous to send GPS position information of devices upon receipt of the target device’s identifier to verify that the two devices are still “*in the same area*” (and have not moved away from one another after exchanging identifiers via Bluetooth) such that information exchange can be authorized. Mgrdechian, 10:29-38; Williams ¶78.

In addition, **Mgrdechian** discloses “electronic commerce applications including micro-payments” between “users” of wireless devices that include “businesses” from which users can select their “favorite...items or services for sale.”

Mgrdechian, 7:43-45, 8:1-4, 11:28-33. A POSITA would have understood that the purchased goods and services are delivered to the customer, and, at minimum, found it obvious to do so to complete the electronic commerce transaction. Williams ¶81. A POSITA would have known that e-commerce transactions include the delivery of any purchased goods or services through the use of an electronic system and/or portable device. A POSITA would also have understood that delivery would occur after the user sends a “message” including a “micropayment[]” from the “first wireless device” to the business’s wireless device. *E.g.*, Mgrdechian, 3:45-58, 7:22-32, 15:11-15, 21:19-21; Williams ¶81. At minimum, a POSITA would have found it obvious to do so to fulfill the seller’s commitment in an e-commerce transaction. Williams ¶81.

In addition, **Mgrdechian** teaches that “dynamic or pseudo-random” device identifiers (e.g., “ID[s]”) “associated with profile information” of the user of the device are stored in the server (e.g., “a remote computer”). *E.g.*, Mgrdechian, 4:65-5:10, 12:18-22, 13:40-42. A POSITA would have understood that when a “dynamic or pseudo-random” “unique ID” changes, the new “unique ID” would be associated with the user’s profile information at the server. Mgrdechian, 5:1-10, 9:15-28; Williams ¶82. This would ensure, for example, that the user can properly access his/her/its profile information. Mgrdechian, 9:15-28; Williams ¶82. A POSITA would have understood and, at minimum, found it an obvious implementation choice

to generate a previously unused identifier (a unique ID) each time the identifier is sent for additional security to prevent attempts to clone the device using the identifier and to make it more difficult to discover the new covert identifier by hacking. Williams ¶82; Kulakowski ¶¶8 (“identifier generated...may be based on...sending or receiving a predetermined message at the client device... and is therefore not easily hacked or duplicated by a cloned client device”), 88 (“Since the covert identifier has just been updated..., hackers have to re-start their hacking...immediately.... Such hacking attempts are unlikely to be successful in time....”).

Mgrdechian is in the same field of art and is analogous art to the '842—both are in the same field related to facilitating communications between wireless devices. *E.g.*, '842, 2:55-59 (“The present invention is generally concerned with facilitating the exchange of information and transactions between two entities associated with two wireless devices when the devices are in close proximity to each other utilizing both a short range and a long range wireless capability.”); Mgrdechian, 1:32-35 (“The present invention relates to wireless communication, and in particular, to a wireless communication system and method that provides an exchange of information between wireless devices.”); Williams ¶83.

In addition, **Mgrdechian** is reasonably pertinent to the alleged problem(s) identified in the '842 of avoiding the security and privacy concerns of direct peer-

to-peer communications. *E.g.*, '842, 2:39-47 (“[A]ny policy for the delivery of locally stored content is difficult to enforce without the potential for fraud such as spoofing identities between the peers. Such fraud may lead to concerns of personal safety or privacy....”); *Mgrdechian* 4:40-47 (“send a message to this user without necessarily having any prior knowledge of the recipient's identifying information, where the identifying information of the recipient may remain hidden from the sender and is known only to the service itself”), 9:56-60 (“[U]sers of wireless devices...interact using a local wireless protocol when the wireless devices are within range of each other. Such devices may be coupled together over an ad hoc or peer-to-peer wireless network....”). *Williams* ¶¶84.

As further discussed below, *Mgrdechian* anticipates, and at minimum renders obvious, claims 1, 5, 9, 12, 14, 15, 22, and 24. *Williams* ¶¶101-102.

2. Claim Chart—*Mgrdechian*

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
<p>[1.pre] A method for facilitating a transaction between a first wireless device and a second wireless device utilizing a server, comprising the steps of:</p>	<p>Mgrdechian discloses a method for facilitating a transaction (<i>e.g.</i>, “exchange of information between wireless devices” using a “server” “for the electronic commerce applications including micropayments”) between a first wireless device (<i>e.g.</i>, a customer’s “wireless device,” “Device A”) and a second wireless device (<i>e.g.</i>, a “business[’s]” “wireless device,” “Device B”) utilizing a server (<i>e.g.</i>, using a “server”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>Mgrdechian discloses the “exchange of information between wireless devices” using a “server” for “electronic</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>commerce applications including micro-payments.” Mgrdechian, 1:31-34, 5:4-7, 5:16-20, 7:43-45, 10:48-56. The devices are used by customers (“individuals”) and “businesses,” and each device can assume the role of “Sender” or “Recipient.” <i>Id.</i>, 6:20-29, 8:1-4. A customer’s “wireless device[.]” (also called “first wireless device” and “Device A”) and a “business[’s]” “wireless device[.]” (also called “Device B”) communicate with and participate in transactions with each other using the “server.” <i>Id.</i>, 3:15-21, 5:4-7, 9:40-53, 14:49-55.</p> <ul style="list-style-type: none"> • 1:31-34 (“<u>a wireless communication system and method that provides an exchange of information between wireless devices</u>”) • 3:15-21 (“receiving in the first wireless device one or more wireless device identifications associated with one or more other wireless devices, and <u>transmitting at least one of the one or more wireless device identifications from the first wireless device to a remote computer system....</u>”) • 5:4-7 (“<u>Upon receipt of the unique ID of Device B (and of any other devices that respond to the inquiry for their ID), Device A may upload these IDs to a central service which may include a website, a database and one or many servers.</u>”) • 5:16-20 (“<u>[B]oth devices exchange ID or other information (i.e. there is a reciprocal exchange of information)....</u>”) • 6:20-29 (“<u>The Devices (A and B) themselves can be...integrated into or with other devices such as cell-phones.... In addition, the devices can have the capability to act as both Sender and Recipient..., to act only as a Sender...or to act only as a Recipient....</u>”)

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<ul style="list-style-type: none"> • 7:43-45 (“[T]he present invention includes the use of the service and/or hardware for <i>the electronic commerce applications including micro-payments.</i>”) • 8:1-4 (“Users of the device and service (i.e. <i>senders or recipients, or both</i>), <i>may include individuals, businesses,....</i>”) • 9:40-53 (“Communication between wireless devices may be initiated by a first user of one of the wireless devices (e.g., User A of device 310, “Device A”)...User A may be referred to herein as the initiator or initiating user of the communication, and <i>Device A may be referred to herein as the initiating device</i>....The system further includes another user of one of the wireless devices (e.g., User B of device 320, “Device B”)... User B may be referred to herein as a targeted user, and <i>Device B may be referred to herein as the target device.</i>”) • 10:48-56 (“[R]emote computer system 360...may be an Internet <i>server</i> computer....”) • Fig. 3A

Claim Element **U.S. Patent No. 7,545,784 (“Mgrdechian”)**

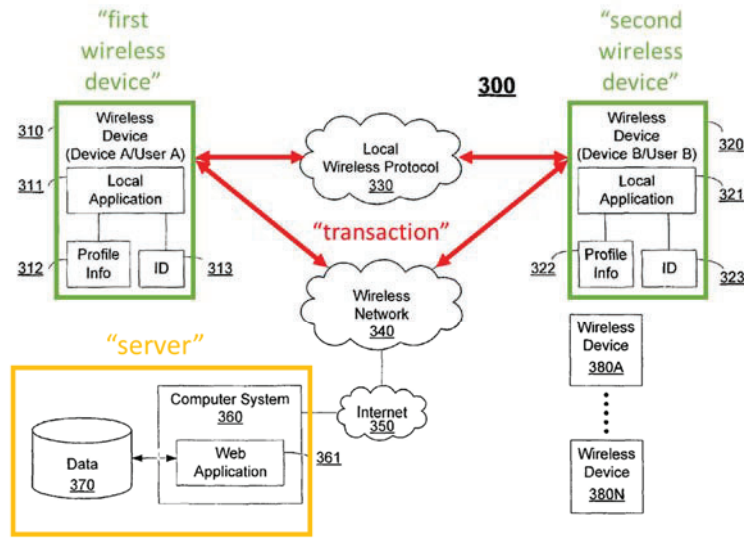


Fig. 3A

- See also 4:4-14, 4:48-5:30, 10:34-61, 13:3-18, 15:11-15

Williams ¶¶103-107.

[1.a] communicating an identifier associated with said second wireless device to said first wireless device using a short range wireless connection, said first wireless device providing said identifier to said server,

Mgrdechian discloses communicating an identifier associated with said second wireless device to said first wireless device using a short range wireless connection (e.g., “receiving in the first wireless device” a “wireless device identification[] associated with” the “business[’s]” “wireless device” via a “local wireless protocol” such as “Bluetooth”), said first wireless device providing said identifier to said server (e.g., “transmitting...[the business’s] wireless device identification[] from the first wireless device to a remote computer system”).

E.g., Mgrdechian:

Mgrdechian discloses “receiving in the first wireless device” an identifier such as a “wireless device identification[] associated with” the business’s wireless device. Mgrdechian, 3:14-24, 6:20-29, 8:1-4, 9:40-43. The business’s wireless device communicates with the first

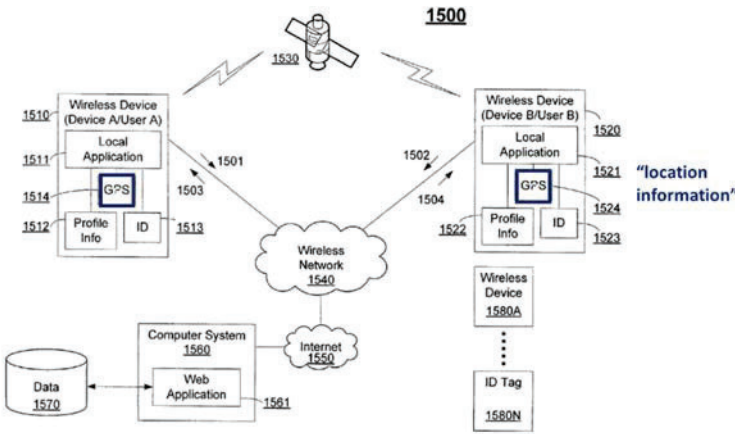
Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>wireless device using a “local wireless protocol,” such as “Bluetooth,” and “both devices exchange ID” in “a reciprocal exchange.” <i>E.g., id.</i>, 3:15-21, 5:4-7, 5:16-20, 6:20-29, 9:40-53, 10:10-15. The first wireless device “transmit[s]” the business’s wireless device’s ID to the “server[,]” which is a “remote computer system.” <i>Id.</i>, 3:15-21, 5:4-7.</p> <ul style="list-style-type: none"> • 3:15-21 (“<u>receiving in the first wireless device one or more wireless device identifications associated with one or more other wireless devices, and transmitting at least one of the one or more wireless device identifications from the first wireless device to a remote computer system....</u>”) • 5:4-7 (“<u>Upon receipt of the unique ID of Device B (and of any other devices that respond to the inquiry for their ID), Device A may upload these IDs to a central service which may include a website, a database and one or many servers.</u>”) • 5:16-20 (“<u>[B]oth devices exchange ID or other information (i.e. there is a reciprocal exchange of information)....</u>”) • 6:20-29 (“<u>The Devices (A and B) themselves can be...integrated into or with other devices such as cell-phones.... In addition, the devices can have the capability to act as both Sender and Recipient..., to act only as a Sender...or to act only as a Recipient....</u>”) • 8:1-4 (“Users of the device and service (i.e. <u>senders or recipients, or both</u>), <u>may include individuals, businesses,</u>”) • 9:40-43 (“<u>Communication between wireless devices may be initiated by a first user of one of the wireless devices (e.g., User A of device 310, “Device A”)</u>”)

Claim Element	U.S. Patent No. 7,545,784 (“Mgrdechian”)
	<p><i>interested in obtaining information about another user.”)</i></p> <ul style="list-style-type: none"> • 10:10-15 (“<i>[W]ireless technologies that may be used as a local wireless protocol include Bluetooth, an 802.11 protocol, Zigbee or equivalent wireless technology for establishing a peer-to-peer or ad hoc network or detecting the presence of other wireless devices and exchanging device IDs.”)</i>) • 10:22-25 (“<i>[P]rotocols such as Bluetooth, 802.11 or Zigbee are particularly well-suited for applications where the other wireless devices are operating in close physical proximity of each other.”)</i>) • Fig. 3A <p style="text-align: center;">Fig. 3A</p> <ul style="list-style-type: none"> • <i>See also 5:16-20, 10:35-61, 13:3-18, Fig. 8 Williams ¶¶108-111.</i>
[1.b] said server establishing location information associated with said	<p>Mgrdechian discloses said server establishing location information associated with said first and said second wireless devices (e.g., server “correlat[es]...location information” for the customer’s and “business[’s]” wireless devices communicating using the “local wireless</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
<p>first and said second wireless devices,</p>	<p>protocol”; server “retriev[es]” “information associated with” “business[]” device’s “ID,” including “business[’s]” “address”; server “determin[es]” both device’s “GPS information”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>Mgrdechian discloses a server “correlating...location information” of the first and business’s wireless devices because both are communicating using the “local wireless protocol” and thus in “physical proximity” to one another. Mgrdechian, 6:20-29, 6:62-7:5, 10:10-15, 10:22-25, 14:49-63, 20:35-43. Additionally, for devices that are in a fixed location, such as the business’s device, Mgrdechian discloses the server “retriev[ing]” “information associated with” business’s device’s “ID,” which includes the business’s “address”—meaning the server determines the location of both devices because the first wireless device is in “physical proximity” to the business’s device. <i>Id.</i>, 6:20-29, 8:5-14, 10:22-25, 11:10-22, 14:49-63. As demonstrated by ’842 claim 8, Mgrdechian’s disclosures meet this limitation. Williams ¶118.</p> <p>To the extent further disclosure is required, Mgrdechian further discloses the server determining the “GPS information” for both devices and providing the location information of nearby devices to the devices. <i>Id.</i>, 23:51-57, 24:14-25. As discussed in §IX.A.1, a POSITA would have been motivated to also apply the GPS location teachings in implementing the embodiments in which the devices exchange identifiers to enable the server to establish geographic location information for both devices (even for devices that are not in a fixed location), such that the server advantageously can more precisely determine whether the two devices are operating “in the same area” and have not moved away from one another since exchanging identifiers via Bluetooth in order to authorize a transaction. <i>Id.</i>, 6:62-7:5, 10:29-38, 23:51-57, 24:14-25; Williams ¶¶120, 123.</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<ul style="list-style-type: none"> • 6:62-7:5 (“<u>the server can build a positional routing database to determine users who are likely to be reasonably close to other users</u>, but beyond the range of direct detection. Upon request of Device A, <u>the server may supplement direct responses with indirect responses that User A can select from</u>. <u>By correlating this location information, the server can create what is effectively an expanded or “daisy-chained” network</u>, dramatically increasing the utility and range of the system.”) • 8:1-4 (“Users of the device and service (i.e. <u>senders or recipients, or both</u>), <u>may include individuals, businesses,...</u>”) • 8:5-14 (“[T]he present invention would also include (<u>e.g., as part of the server</u>) <u>a web-based user interface for registration and profile management</u>. <u>Information provided</u> by users through this interface <u>would include</u>, but not be limited to <u>the Bluetooth ID of their mobile device</u>, their name, <u>address</u>, billing information (if applicable), username, profile information, photo, preferences and names of friends.”) • 10:10-15 (“<u>local wireless protocol...for establishing a peer-to-peer or ad hoc network or detecting the presence of other wireless devices and exchanging device IDs.</u>”) • 10:22-25 (“[P]rotocols such as <u>Bluetooth</u>, ...where the other wireless devices are operating <u>in close physical proximity</u> of each other.”) • 10:29-38 (“Embodiments of the present invention <u>allow a user (e.g., User A) to view information about, and/or send a message to, another user (e.g., User B) if the other user is operating a wireless device in the same area.</u>”)

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<ul style="list-style-type: none"><li data-bbox="589 317 1398 646">• 11:10-22: (“<u>Database 370 may be a single database, distributed database or other data storage systems that can use device IDs to access information associated with device IDs. ...After the associated information has been retrieved, computer system 360 may then transmit the information back to the initiating device</u> for use by the initiating user.”)<li data-bbox="589 674 1398 793">• 14:49-63 (“[A] business...may take some additional action based on <u>the presence of a person with a specific profile.</u>”)<li data-bbox="589 821 1398 1451">• 23:51-57 (“<u>GPS information is used for determining target devices operating in physical proximity to an initiating device....GPS units 1514 and 1524 may receive signals from satellites 1530 to determine the position of the wireless devices. Local applications 1511 and 1521 may transmit the position information and wireless device IDs 1513 and 1523, which may be a phone number or other unique identifier, over wireless network 1540 and Internet 1550 to computer system 1560. Such information may be sent as position updates...The position information and device IDs for a plurality of wireless devices 1510, 1520 and 1580A-N may then be stored and processed for facilitating communication between users.</u>”)<li data-bbox="589 1478 743 1514">• Fig. 15

Claim Element	U.S. Patent No. 7,545,784 (“Mgrdechian”)
	 <p style="text-align: center;">Fig. 15</p> <ul style="list-style-type: none"> • See also 6:51-58, 10:10-15, 15:11-15, 15:55-16:3, 17:28-43, 20:1-21:8, Figs. 3C, 10 <p>Williams ¶¶112-123.</p>
<p>[1.c] determining authentication information relating to said second wireless device or an entity associated with said second wireless device, transferring said authentication information between the server and the first wireless device and</p>	<p>Mgrdechian discloses determining authentication information relating to said second wireless device or an entity associated with said second wireless device (e.g., “retrieve[]” “profile information associated with” business’s “device ID”), transferring said authentication information between the server and the first wireless device (e.g., “server” “send[s]...profile information associated with” business’s “device ID back to the [customer’s] initiating wireless device (e.g., Device A)” including “items or services for sale” and an “image” of the business).</p> <p><u>E.g., Mgrdechian:</u></p> <p>Mgrdechian discloses “retriev[ing]” from the server “profile information associated with” the business’s wireless device, including, e.g., an “image” of the business and “items or services for sale.” Mgrdechian, 4:4-14, 5:4-10, 5:21-30, 6:20-29, 8:5-14, 11:28-33, 12:18-23, 14:49-63. The “server” then “send[s]...[the] profile information associated with” the business’s “device ID” back to the customer’s wireless device (“Device A”). <i>Id.</i>, 4:4-14, 5:4-</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>10, 5:21-30, 6:20-29, 8:5-14, 10:62-11:4, 12:18-23, 14:49-63. The business’s profile information authenticates its device by demonstrating that the device is associated with the business. <i>Id.</i>, 5:4-10, 5:21-30, 6:20-29, 8:5-14, 14:49-63.</p> <ul style="list-style-type: none"> • 4:4-14 (“<u>storing a plurality of wireless device identifications, storing information for a plurality of users, associating the wireless device identifications with the information, receiving one or more wireless device identifications from a wireless device, accessing the information associated with the one or more wireless device identifications, and transmitting the information associated with the one or more wireless device identifications to the wireless device.</u>”) • 5:4-10 (“The system will then match the IDs provided by Device A with those of registered users and <u>download the images of the users associated with the IDs back to Device A.</u>”) • 5:21-30 (“Once <u>Device A has received images of the neighboring users from the server</u> or through other means, 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 which will then download the associated profile of User B to Device A.</u> At that point, User A can then review the profile of User B, create and send a message or forward his own user profile to User B.”) • 8:5-14 (“[T]he present invention would also include (e.g., as part of the server) a web-based user interface for registration and profile management. Information provided by users through this interface

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>would include, but not be limited to the Bluetooth ID of their mobile device, their name, address, billing information (if applicable), username, profile information, photo, preferences and names of friends.”)</p> <ul style="list-style-type: none"> • 10:62-11:4 (“[T]he device IDs may be received by the remote computer system and used by a web application 361 and a database 370 to access information associated with each device ID, such as Device B (i.e., User B). . . .<i>Database 370 retrieves information associated with each device ID in the query, and then formats the information to send to the initiating device 310.</i>”) • 11:28-33 (“<i>Profile information may include a variety of information about a user's likes and dislikes, background, education, friends and other information such as text, audio, video, images (i.e., electronic pictures of the user), Blogs, links to favorite websites or items or services for sale.</i>”) • 12:18-23 (“[C]omputer system 360 may <i>send some or all of the profile information associated with each device ID back to the initiating wireless device (e.g., Device A),</i> and the profile information (e.g., an image or picture of the target user) may be displayed to the user of the initiating wireless device.”) • <i>See also</i> 5:4-10, 7:16-22, 7:55-67, 11:59-64, 12:18-26, 13:24-37, 21:5-8, Fig. 5 <p>Williams ¶¶124-129.</p>
<p>[1.d] said server providing authorization to said first wireless device or said second wireless device to</p>	<p>Mgrdechian discloses said server providing authorization to said first wireless device or said second wireless device to proceed with said transaction (e.g., “server” “authorize[s]...information to be conveyed between the devices...through [the] central server[.]” including “micropayments” from the customer to the</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
<p>proceed with said transaction based at least in part upon said identifier, said authentication information and the location information of said first and second wireless device.</p>	<p>“business[]” for a “purchase[]”) based at least in part upon said identifier, said authentication information and the location information of said first and second wireless device (e.g., server “filter[s]...messages” directed to business’s device based on “wireless device identification[] associated with” a “business[],” which is used to identify “filter parameters” in the business’s profile, and “allow[s] a user (e.g., User A [the customer]) to...send a message to, another user (e.g., [the business]) if the other user is operating a wireless device in the same area”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.b].</p> <p>In addition, Mgrdechian discloses a server that “send[s]...profile information associated with” the business’s “device ID back to the initiating wireless device” (the customer’s device) including “items or services for sale.” Mgrdechian, 6:20-29, 11:28-33, 12:18-23. The initiating wireless device then selects an “item[] or service[] for sale” to “purchase[]” and sends a message to the server to be sent to the business’s device for the purchase. <i>Id.</i>, 3:45-58, 6:20-29, 7:22-33, 11:28-33, 15:11-15, 17:67-18:6. The “server” then “authorize[s]... information to be conveyed between the devices...through [the] central server[]” including a “micropayment[]” to the “business[]” for the “purchase[].” <i>Id.</i>, 6:20-29, 7:22-33, 8:1-4, 14:49-63, 15:11-15. As part of the authorization, the server uses the business’s device ID to determine where the message is being sent and retrieve the business’s profile (the authentication information), which includes the business’s “filtering preferences.” <i>Id.</i>, 3:45-58, 4:4-14, 5:4-10, 5:20-30, 6:20-29, 7:22-33, 13:50-55, 14:49-63, 17:67-18:6. The filtering preferences are then applied to the message from the first wireless device to determine whether it is authorized. <i>Id.</i>, 5:4-10, 5:20-30, 13:50-14:3, 14:49-63, 17:67-18:6. In addition, the server only</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>“allow[s] a user...to...send a message to, another user...if the other user is operating a wireless device in the same area”—thus the authorization is also dependent on the location of the two devices (see also discussion of [1.b]). <i>Id.</i>, 6:62-7:5, 10:29-38, 14:49-63.</p> <ul style="list-style-type: none"> • 3:15-21 (“receiving in the first wireless device <u>one or more wireless device identifications associated with one or more other wireless devices</u>, and transmitting at least one of the one or more wireless device identifications from the first wireless device to a remote computer system....”) • 3:45-58 (“[T]he method further comprises <u>sending a message...from the first wireless device to the remote computer system</u>....[T]he remote computer system <u>filters the message based on the information associated with the</u> at least one <u>wireless device identification</u>.”) • 7:22-33 (“[C]ommunication of any form between devices is initiated by the wireless exchange of one or more IDs that are uploaded to <u>one or more central servers</u> which then enable, <u>authorize</u> or facilitate <u>information to be conveyed between the devices</u> either directly or <u>through one or more central servers</u>.”) • 8:1-4 (“Users of the device and service (i.e. <u>senders or recipients, or both</u>), <u>may include individuals, businesses,....</u>”) • 10:29-38 (“Embodiments of the present invention <u>allow a user (e.g., User A) to view information about, and/or send a message to, another user (e.g., User B) if the other user is operating a wireless device in the same area</u>.”)

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<ul style="list-style-type: none"> • 11:28-33 (“Profile information may include...images (i.e., electronic pictures of the user), ...or <u>items or services for sale.</u>”) • 12:18-23 (“<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>”) • 13:50-14:3 (“<u>[F]iltering based on profile information...allow[s] users to send messages and profile information to other users.</u> Some applications may use the device IDs of both the target and the initiating devices to perform filtering.... a web application may receive device IDs of a target user and an initiating user from an initiating device....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, <u>the filter parameters are applied to the profile information.</u> For example, the profile information of a target may be compared to the initiator's filter parameters, and the target's profile is filtered out...Alternatively, 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.”) • 15:11-15 (“[T]he present invention includes the use of the service and/or hardware for the electronic commerce applications including micropayments. <u>Micropayments are prepaid accounts that may be used for low dollar amount purchases.</u>”) • 17:67-18:6 (“<u>[U]sers may configure the system to control the form of the message received, the number of messages received in given time interval,</u>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p><i>the maximum number of messages or other filtering preferences</i> for filtering out unwanted, repetitive, overwhelming or otherwise undesirable messages (e.g., spam). Additionally, a targeted user can specify a location, method or format for receiving a message.”)</p> <ul style="list-style-type: none"> • 24:14-25 (“<u>[I]f at least one device is found, web application 1561 transmits a notification 1503 to Device A. Such reply may include profile information</u> (e.g., pictures) about each device within range of Device A. For example, web application 1561 may also sends summary profile information, such as visual cue (e.g., an image of the users of the detected devices). Device A may then display pictures of other users on a display. User A determines from the information provided by Device A whether he/she would like to carry out further interaction with any of the listed users using any of the aforementioned methods and mechanisms described herein.”) • <i>See also</i> 5:51-65, 7:55-67, 9:15-33, 11:59-64, 12:7-36, 16:60-17:50, 21:5-8, Fig. 7A <p>Williams ¶¶130-138.</p>
<p>[5] The method of claim 1 additionally comprising: said server using said identifier to determine authentication information relating to the second wireless device or an entity associated</p>	<p><i>See</i> [1].</p> <p>Mgrdechian discloses said server using said identifier to determine authentication information relating to the second wireless device or an entity associated with said second wireless device (e.g., the server “retriev[es]” “profile information associated with” business’s “ID”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.c].</p> <p>In addition, Mgrdechian discloses the server “retrieving profile information” including “an image or picture” associated with a “device ID” that represents a</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
with said second wireless device.	<p>“business[.]” Mgrdechian, 4:4-14, 6:20-29, 8:1-4, 12:18-23, 14:49-63, 15:64-16:2, 17:40-43.</p> <ul style="list-style-type: none"> • 4:4-14 (“<i>accessing the information associated with the one or more wireless device identifications, and transmitting the information associated with the one or more wireless device identifications to the wireless device.</i>”) • 8:1-4 (“Users of the device and service (i.e. <i>senders or recipients, or both</i>), <i>may include individuals, businesses,...</i>”) • 12:18-23 (“[C]omputer system 360 may send some or all of the <i>profile information associated with each device ID</i> back to the initiating wireless device (e.g., Device A), and the profile information (e.g., an <i>image or picture</i> of the target user) may be displayed to the user of the initiating wireless device.”) • 15:64-16:2 (“<i>User A may then select specific target devices</i> for further and subsequent queries. Thus, rather than automatically <i>retrieving profile information</i> for all device IDs within range, computing resources may be saved by <i>narrowing the list to profiles of interest to be retrieved from the remote computer system.</i>”) • <i>See also</i> 5:21-30, 11:59-64, 13:24-38, Fig. 5 <p>Williams ¶¶139-141.</p>
[9] The method of claim 1 further including said server receiving information from either said first wireless device or said second wireless	<p><i>See</i> [1].</p> <p>Mgrdechian discloses said server receiving information from either said first wireless device or said second wireless device indicating selection of one or more goods for purchase (e.g., server receiving “message” including “micropayment[.]...for...purchase[.]” of “item[.]”</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
<p>device indicating selection of one or more goods for purchase.</p>	<p>or service[] for sale” in the business’s profile from the customer’s device).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See [1.d].</i></p> <p>In addition, Mgrdechian discloses the “server” receiving a “message” from the “first wireless device” to be sent to the business’s wireless device for “electronic commerce applications” including “micropayments” for a purchase of an “item[] or service[] for sale” indicated in the “profile information associated with” the business device’s “ID.” Mgrdechian, 3:45-58, 6:20-29, 10:48-56, 11:28-33, 12:18-23, 14:49-63, 15:11-15.</p> <p>To the extent it is argued that further disclosure is required, a POSITA would have at minimum found it to be an obvious implementation choice to send the identification of the item to be purchased along with the micropayment such that the business would know what the micropayment was for. Williams ¶145.</p> <ul style="list-style-type: none"> • 3:45-58 (“<u>[T]he method further comprises sending a message...from the first wireless device to the remote computer system....[T]he remote computer system filters the message based on the information associated with the at least one wireless device identification.</u>”) • 10:48-56 (“[R]emote computer system 360...may be an Internet <u>server</u> computer....”) • 11:28-33 (“<u>Profile information may include a variety of information...images (i.e., electronic pictures of the user), Blogs, links to favorite websites or items or services for sale.</u>”) • 12:18-23 (“[C]omputer system 360 may send some or all of the <u>profile information associated with each device ID</u> back to the initiating wireless device (e.g., Device A), and the profile information (e.g.,

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>an <i>image or picture</i> of the target user) may be displayed to the user of the initiating wireless device.”)</p> <ul style="list-style-type: none"> • 15:11-15 (“[T]he present invention includes the use of the service and/or hardware for the <i>electronic commerce applications including micropayments</i>. Micropayments are prepaid accounts that may be used <i>for</i> low dollar amount <i>purchases</i>.”) • <i>See also</i> 7:43-45, 7:55-67, 21:6-8, 21:37-55, Fig. 12 Williams ¶¶142-145.
<p>[12] The method of claim 9 further including initiating delivery of said purchased good or service after receiving confirmation that said goods or services are to be purchased.</p>	<p><i>See</i> [9].</p> <p>Mgrdechian discloses initiating delivery of said purchased good or service after receiving confirmation that said goods or services are to be purchased (e.g., “business[]” initiating delivery of the purchased “item[] or service[]” after receiving “message” with “micropayment[]...for...purchase[]”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.d].</p> <p>In addition, based on Mgrdechian’s teachings, a POSITA would have understood that the “business[]” initiates a delivery of a good or service upon receiving the “message” including “micropayments” from the “first wireless device” for a purchase to complete the transaction. Mgrdechian, 3:45-58, 4:23-26, 6:20-29, 8:1-4, 11:28-33, 14:49-63, 15:11-15, 21:19-21. At minimum, it would have been obvious to do so to advantageously complete the transaction as explained in §IX.A.1. Williams ¶¶149-152.</p> <ul style="list-style-type: none"> • 3:45-58 (“[T]he method further comprises sending a <i>message...from the first wireless device to the remote computer system</i>.”)

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<ul style="list-style-type: none"> • 4:23-26 (“[T]he method further comprises <i>receiving a correspondence instruction</i> from at least one wireless device, and in accordance therewith, <i>sending a message to at least one of the plurality of users.</i>”) • 8:1-4 (“<i>Users of the device and service (i.e. senders or recipients, or both), may include individuals, businesses, not-for-profit organizations, advertisers, political action groups, or any other organization.</i>”) • 10:48-56 (“[R]emote computer system 360...may be an Internet <i>server</i> computer....”) • 11:28-33 (“<i>Profile information may include a variety of information...images (i.e., electronic pictures of the user), Blogs, links to favorite websites or items or services for sale.</i>”) • 15:11-15 (“[T]he present invention includes the use of the service and/or hardware for the <i>electronic commerce applications including micropayments</i>. Micropayments are prepaid accounts that may be used <i>for</i> low dollar amount <i>purchases.</i>”) • 21:19-21 (“<i>[T]he user may confirm that the message is complete and ready to send</i> with or without the user's profile.”) <p>Williams ¶¶146-152.</p>
<p>[14] The method of claim 1 further including initiating delivery of said purchased good or service after authorization of said transaction.</p>	<p>See [1].</p> <p>Mgrdechian discloses initiating delivery of said purchased good or service after authorization of said transaction (e.g., “business[]” initiating delivery of the purchased “item[] or service[]” after “message” with “micropayment[]...for purchase[]” is “authorize[d]” by the server).</p> <p><u>E.g., Mgrdechian:</u></p> <p>See [1.d], [12].</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>In addition, based on Mgrdechian’s teachings, a POSITA would have understood that the “business[]” initiates a delivery of a good or service upon receiving the “message” including “micropayments” from the “first wireless device” for a purchase (to complete the transaction) and after the server “authorize[s]” the message to be sent from the customer’s first wireless device to the business’s wireless device. Mgrdechian, 3:45-58, 4:23-26, 6:20-29, 7:28-32, 8:1-4, 11:28-33, 14:49-63, 15:11-15, 21:19-21. At minimum, it would have been obvious to do so to advantageously complete the transaction as explained in §IX.A.1. Williams ¶¶157-159.</p> <ul style="list-style-type: none"> • 3:45-58 (“[T]he method further comprises <u>sending a message...from the first wireless device</u> to the remote computer system.”) • 7:28-32 (“[C]ommunication of any form between devices is initiated by the wireless exchange of one or more IDs that are uploaded to <u>one or more central servers which then enable, authorize or facilitate information to be conveyed between the devices...</u>”) • 8:1-4 (“<u>Users of the device and service (i.e. senders or recipients, or both), may include individuals, businesses,</u> not-for-profit organizations, advertisers, political action groups, or any other organization.”) • 11:28-33 (“<u>Profile information may include a variety of information...images (i.e., electronic pictures of the user),</u> Blogs, links to favorite websites <u>or items or services for sale.</u>”) • 15:11-15 (“[T]he present invention includes the use of the service and/or hardware for the electronic commerce applications including <u>micropayments.</u> Micropayments are prepaid accounts that may be used <u>for</u> low dollar amount <u>purchases.</u>”)

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<ul style="list-style-type: none"> • 21:33-46 (“The steps in FIG. 12 may be executed on a computer system such as a <i>server</i>...<u>Payment authorization for the service occurs at 1203.</u>”) • <i>See also</i> Fig. 12 <p>Williams ¶¶153-159.</p>
[15] The method of claim 1 wherein said first wireless device communicates with said server over a communication channel including wired connections.	<p><i>See</i> [1].</p> <p>Mgrdechian discloses that said first wireless device communicates with said server over a communication channel including wired connections (e.g., “the Internet,” “intermediate Internet-ready relaying computer (e.g., a USB cable, cradle or other physical connection)”).</p> <p><u>E.g., Mgrdechian:</u></p> <p>Mgrdechian discloses that the first wireless device communicates with said “server” over a communications channel that includes a “wireless network” and “the Internet”—which includes wired connections. Mgrdechian, 10:48-56. Indeed, Mgrdechian describes the Internet as not wireless. <i>Id.</i>, 11:16-19. A POSITA would have understood that the infrastructure of the Internet uses wires at least in part, so any communication channel relying on the Internet would include wired connections. Williams ¶163.</p> <ul style="list-style-type: none"> • 10:48-56 (“[T]he 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, for example. Computer system 360 may be an Internet <i>server</i> computer....”) • 11:16-19 (“over the Internet or wirelessly”) • 16:43-45 (“Device A may contact web application 861 through an intermediate Internet-ready relaying computer (e.g., a USB cable, cradle or other physical connection).”)

Claim Element	U.S. Patent No. 7,545,784 (“Mgrdechian”)
	<ul style="list-style-type: none"> Fig. 3A: <p style="text-align: center;">Fig. 3A</p> <i>See also Fig. 8.</i> <p>Williams ¶¶160-163.</p>
<p>[22] The method claim 5 wherein said authentication information is based at least in part upon said identifier not having been previously used.</p>	<p><i>See [5].</i></p> <p>Mgrdechian discloses that said authentication information is based at least in part upon said identifier not having been previously used (e.g., “profile information associated with” business’s “dynamic” “unique ID”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See [1.c].</i></p> <p>In addition, Mgrdechian discloses retrieving the “profile information” (the authentication information) based on the business’s “dynamic” “unique ID”—such that each time the identifier dynamically changes to a new unique number it has never been previously used to retrieve a profile. <i>E.g.</i>, Mgrdechian, 4:56-57, 4:65-5:3, 5:4-10, 6:20-29, 7:28-32, 8:1-4, 12:18-23, 14:49-63. To the extent it is</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>argued that further disclosure is required of dynamically changing the ID after each use, this would have been an obvious implementation choice for additional security, as discussed in §IX.A.1. Williams ¶169.</p> <ul style="list-style-type: none"> • 4:56-57 (“[E]ach device, including Device B broadcasts its <i>unique ID</i> back to Device A.”) • 4:65-5:3 (“In one embodiment, response to the inquiry for an ID may be done via the same wireless protocol as the inquiry. In one embodiment, the response to the inquiry for an ID may be done or via a different wireless protocol as the inquiry. In addition, embodiments of the devices can include cases where the ID’s are static, dynamic or pseudo-random.”) • 7:28-32 (“<i>[C]ommunication of any form between devices is initiated by the wireless exchange of one or more IDs that are uploaded to one or more central servers which then enable, authorize or facilitate information to be conveyed between the devices....</i>”) • 8:1-4 (“<i>Users of the device and service (i.e. senders or recipients, or both), may include individuals, businesses, not-for-profit organizations, advertisers, political action groups, or any other organization.</i>”) • 12:18-23 (“[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), and the profile information (e.g., an image or picture of the target user) may be displayed to the user of the initiating wireless device.”) • 13:40-42 (“[O]ne or more wireless device identifications and associated profile information are stored on a remote computer.”)

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	Williams ¶¶164-169.
[24.pre] A method for a server to exchange information comprising:	<p>Mgrdechian discloses a method for a server to exchange information (e.g., “central server” “authorize[s]...information to be conveyed between the devices...through [the] central server[]”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.pre].</p> <p>In addition, Mgrdechian discloses the “exchange of information between wireless devices” using a “server[].” Mgrdechian, 1:31-34, 5:4-7, 5:16-20, 7:43-45.</p> <p>Williams ¶¶170-171.</p>
[24.a] receiving, from a first wireless device, a second wireless device identifier associated with a second wireless device, said second wireless device identifier having been sent from the second wireless device and received by the first wireless device using a short range wireless connection;	<p>Mgrdechian discloses receiving, from a first wireless device, a second wireless device identifier associated with a second wireless device (e.g., “transmitting...[the business’s] wireless device identification[] from the first wireless device to a remote computer system”), said second wireless device identifier having been sent from the second wireless device and received by the first wireless device using a short range wireless connection (e.g., “receiving in the first wireless device” a “wireless device identification[] associated with” the “business[’s]” “wireless device” via a “local wireless protocol” such as “Bluetooth”).</p> <p><i>See</i> [1.pre], [1.a].</p> <p>Williams ¶172.</p>
[24.b] determining location information associated with the first and second wireless devices;	<p>Mgrdechian discloses determining location information associated with the first and second wireless devices (e.g., server “correlat[es]...location information” for the customer’s and “business[’s]” wireless devices communicating using the “local wireless protocol”; server “retriev[es]” “information associated</p>

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	<p>with” “business[.]” device’s “ID,” including “business[.]’s” “address”; server “determin[es]” both device’s “GPS information”).</p> <p><i>See</i> [1.b].</p> <p>Williams ¶173.</p>
<p>[24.c] authenticating the second wireless device, said authenticating depending upon authentication information transferred between the first wireless device and the server; and</p>	<p>Mgrdechian discloses authenticating the second wireless device (<i>e.g.</i>, “retriev[e]” “profile information associated with” business’s “device ID”), said authenticating depending upon authentication information transferred between the first wireless device and the server (<i>e.g.</i>, business’s ID transferred from the first wireless device to the server and used to retrieve the business’s profile; “server” “send[s]...profile information associated with” business’s “device ID back to the initiating wireless device (<i>e.g.</i>, Device A)” including “items or services for sale”).</p> <p><u>E.g., Mgrdechian:</u></p> <p><i>See</i> [1.c].</p> <p>In addition, Mgrdechian discloses that by retrieving the business device’s profile information (the authenticating information), the server also authenticates the second wireless device. <i>E.g.</i>, Mgrdechian, 12:18-23. In addition, the customer using the first wireless device uses the business’s image in the profile information to confirm that it is the business “with whom [the customer is] attempting to communicate.” <i>E.g., id.</i>, 11:59-64.</p> <ul style="list-style-type: none"> • 11:59-64 (“Once the initiating device has received images of the users associated with the device IDs from the remote computer, the images may be displayed to the user of the initiating device (<i>i.e.</i>, User A). User A can then scroll through the images to uniquely select the person with whom they are attempting to communicate or whose profile they wish to view.”)

Claim Element	<u>U.S. Patent No. 7,545,784 (“Mgrdechian”)</u>
	Williams ¶¶174-175.
[24.d] providing authorization to the first wireless device or the second wireless device depending on (a) the second wireless device identifier; (b) the authentication information and (c) the location information.	<p>Mgrdechian discloses providing authorization to the first wireless device or the second wireless device (e.g., “server” “authorize[s]...information to be conveyed between the devices...through [the] central server[]” including “micropayments” from the customer to the “business[]” for a “purchase[]”) depending on (a) the second wireless device identifier; (b) the authentication information and (c) the location information (e.g., server “filter[s]...messages” directed to business’s device based on “wireless device identification[] associated with” a “business[],” which is used to identify “filter parameters” in the business’s profile, and “allow[s] a user (e.g., User A [the customer]) to...send a message to, another user (e.g., [the business]) if the other user is operating a wireless device in the same area”).</p> <p><i>See [1.d].</i></p> <p>Williams ¶176.</p>

B. Ground 3: Claims 12-14 Are Rendered Obvious By Mgrdechian in view of Swartz

1. Overview of Swartz and Motivation to Apply Swartz’s Teachings in Implementing Mgrdechian

Swartz describes a “consumer interactive shopping and marketing system” using a portable device and enabling “home delivery” and awarding “loyalty points” based on customer purchases. *E.g.*, Swartz, Title, Abstract, 37:20-21, 40:50-60. Williams ¶¶85, 178.

Mgrdechian discloses a customer's wireless device sending a "micro-payment[]" to make a purchase of a good or service from a business's wireless device. *Mgrdechian*, 7:43-45, 8:1-4. **Mgrdechian** does not expressly disclose initiating delivery of a purchased good or service. **Swartz** expressly provides this additional implementation detail. For example, **Swartz** discloses that a customer can use a portable terminal to create a "shopping list" by "selecting from a store's list of available goods" and "place[] the order." *E.g.*, *Swartz*, 40:50-60, 43:59-63. Importantly, **Swartz** discloses a business initiating a "home delivery" after receiving such an "order." *E.g.*, *Swartz*, 40:50-60, 43:59-63. *Williams ¶¶86, 88.*

A POSITA would have been motivated, and would have found it advantageous, to apply **Swartz's** teachings in implementing *Mgrdechian's* system. **Swartz** teaches completing an e-commerce transaction by delivering purchased goods or services. **Mgrdechian's** wireless communication system involved a "purchase" of "items or services for sale" via a customer's wireless device from a business's wireless device. *Williams ¶¶, 88, 178.* Applying **Swartz** would advantageously provide for fulfilling the business's obligations when completing a "sale" of "items or services." *E.g.*, *Mgrdechian*, 7:43-45, 11:28-33, 21:6-8. This would have been nothing more than a simple application of **Swartz's** teaching of delivery in an interactive shopping system in implementing **Mgrdechian's** wireless

electronic commerce system according to known methods to yield predictable results. *E.g.*, Mgrdechian, 7:43-45, 8:1-4, 11:28-33; Williams ¶89.

Mgrdechian discloses a wireless communication system that includes “information about...items or services for sale.” Mgrdechian, 7:43-45, 11:28-33, 21:6-8. **Mgrdechian** does not expressly disclose “crediting an award program for the purchase of said goods or services.” **Swartz** expressly provides this additional implementation detail of allowing “a customer [to] be able to build up ‘loyalty points’ as he shops.” *E.g.*, Swartz, 37:20-21, 37:35-40. Williams ¶87.

A POSITA would have been motivated to apply **Swartz**’s known teachings of providing “loyalty points” in implementing **Mgrdechian**’s “electronic commerce applications.” Such application would advantageously “increase purchases” by customers and “influence their choices.” *E.g.*, Mgrdechian, 7:43-45, 11:28-33; Swartz, 37:20-21, 37:35-40; Williams ¶¶90, 178. In particular, **Swartz** teaches “award[ing]” “loyalty points” to “a customer...as he shops” in a manner that is “proportional to the amount of money spent.” Swartz, 37:20-21, 37:35-40. Applying this teaching to **Mgrdechian**’s system would have been nothing more than a simple application of **Swartz**’s known teaching in implementing **Mgrdechian**’s wireless electronic commerce system to yield the predictable result of an e-commerce system with a loyalty program. *E.g.*, Mgrdechian, 7:43-45, 8:1-4, 11:28-33; Williams ¶90.

It would have been obvious for a POSITA to apply **Swartz's** known teachings described above in implementing **Mgrdechian's** wireless communication system that accomplishes “exchange of information” between wireless devices with the help of a “server.” *E.g.*, Mgrdechian, 1:31-34, 5:4-7, 10:48-56. **Swartz**, like Mgrdechian, is in the same field of art and is analogous art to the '842—all are in the same field related to facilitating communications between wireless devices. *E.g.*, Swartz, Abstract, 2:3-9, 2:23-33; Williams ¶¶91-92. **Swartz** is also pertinent to the alleged problem(s) identified in the '842 of the alleged unmet need for a “third trusted party to help facilitate...electronic transaction[s].” *E.g.*, '842, 2:5-10; Swartz, 5:12-23. For example, **Swartz** discloses the host computer “communicat[ing] with third party servers...to transmit/retrieve data in a secure fashion.” *E.g.*, Swartz, 5:19-23.

Accordingly, a POSITA would have found it routine, straightforward and advantageous to apply **Swartz's** teachings of completing an e-commerce transaction by delivering purchased items or services and providing a loyalty program in implementing **Mgrdechian's** electronic commerce system, and would have known that such a combination (yielding the claimed limitations) would predictably work and provide the expected functionality. Williams ¶93.

2. Claim Chart—Mgrdechian in view of Swartz

Claim Element	<u>Mgrdechian in view of Swartz</u>
<p>[12] The method of claim 9 further including initiating delivery of said purchased good or service after receiving confirmation that said goods or services are to be purchased.</p>	<p><i>See</i> §IX.A.[12].</p> <p>To the extent further disclosure is required, Swartz discloses initiating delivery of said purchased good or service after receiving confirmation that said goods or services are to be purchased (<i>e.g.</i>, initiate “home delivery” after the host “confirm[s] order and payment”).</p> <p><u>E.g., Swartz:</u></p> <p>Swartz discloses a business (<i>e.g.</i>, the “central host” that receives the order) initiating a “home delivery” after the host “confirm[s] order and payment.” Swartz, 40:50-60, 43:59-63, Fig. 10. As discussed in §IX.B.1, a POSITA would have been motivated to apply Swartz’s known teachings of initiating home delivery of goods purchased by a user using a portable device in implementing Mgrdechian’s teachings of a wireless communication system involving a “purchase[]” of “items or services for sale” by a customer’s wireless device from a business’s device such that the server (central host) or the business initiates delivery of the purchased good or service after the server and the business receives the micropayment—confirmation that the goods or services are to be purchased and authorization of the transaction. Mgrdechian, 7:43-45, 11:28-33, 15:11-15, 21:6-8. Williams ¶¶89, 92-93, 178.</p> <ul style="list-style-type: none"> • 40:50-60 (“[S]electing from a store's list of available goods, the list may be used to prompt customers on their next visit to the store the exact location and price of the selected items on the list....The above described <i>shopping list system</i> also <i>permits for home delivery</i> of items because of the assurance of a match between items selected by a customer and items including brand, quantity and price available at the facility.”)

Claim Element	<u>Mgrdechian in view of Swartz</u>
	<ul style="list-style-type: none"> • 43:59-63 (“<i>[T]he customer may have placed the order from a portable terminal, kiosk or home computer. The customer may pick up the order after he receives the notification or <u>the store may track the location of the customer and bring the order directly to the customer.</u></i>”) • Fig. 10: <pre> graph TD A[CONNECT TO CENTRAL HOST] --> B[CREATE LIST] B --> C{HOME DELIVERY} C -- YES --> D[SELECT PAYMENT SCHEME AND DELIVERY DATE AND LOCATION] C -- NO --> E{PICK-UP} E -- NO --> F[STORE LIST IN CUSTOMER FILE] F --> G[PRESENT TO CUSTOMER UPON ISSUANCE OF PORTABLE TERMINAL] D --> H[CONFIRM ORDER AND PAYMENT] H --> I[DELIVER ORDER TO ATTENDANT WITH PORTABLE TERMINAL] I --> J[SCAN ITEMS AND CORRECT IN MARKED CONTAINERS] J --> K[DELIVER CONTAINER TO CUSTOMER SELECTED DELIVERY SITE] K --> D style H stroke:#f96 style K stroke:#f96 </pre> <p style="text-align: center;">FIG.10</p> <p>Williams ¶¶179-181.</p>
<p>[13] The method of claim 1 further including crediting an award program for the purchase of</p>	<p>See §IX.A.[1].</p> <p>Swartz discloses including crediting an award program for the purchase of said goods or services (e.g., “loyalty points awarded may be proportional to the amount of money spent by the customers”).</p> <p><u>E.g., Swartz:</u></p>

Claim Element	<u>Mgrdechian in view of Swartz</u>
said goods or services.	<p>While Mgrdechian does not expressly disclose crediting an award program for the purchase of said goods or services, Swartz teaches the “central host” “award[ing]” “loyalty points” to “a customer...as he shops” in a manner that is “proportional to the amount of money spent.” Swartz, 37:5-7, 37:20-21, 37:35-40. As discussed in §IX.B.1, a POSITA would have been motivated to apply Swartz’s known teachings of awarding loyalty points to a customer’s shopping when implementing Mgrdechian’s wireless communication system that includes “information about...items or services for sale” in order to facilitate “electronic commerce applications” for businesses, such that, e.g., the server (the central host) or the business credits an award program for the purchase of the goods or services. Mgrdechian, 7:43-45, 11:28-33, 21:6-8. Williams ¶¶90-93, 178.</p> <ul style="list-style-type: none"> • 37:5-7 (“[T]he central host prompts the portable terminal to display customer specific data and external advertising messages.”) • 37:20-21 (“[A] customer may be able to <i>build up ‘loyalty points’ as he shops.</i>”) • 37:35-40 (“The <i>loyalty points</i> awarded may be proportional to the amount of money spent by the customers.”) <p>Williams ¶¶182-184.</p>
[14] The method of claim 1 further including initiating delivery of said purchased good or service after authorization of said transaction.	<p>See §IX.A.[14].</p> <p>To the extent further disclosure is required, Swartz discloses initiating delivery of said purchased good or service after authorization of said transaction (e.g., initiate “home delivery” after receiving “order”).</p> <p><u>E.g., Swartz:</u></p> <p>See [12].</p> <p>Williams ¶¶185-186.</p>

C. Ground 4: Claim 22 Is Rendered Obvious by Mgrdechian in view of Kulakowski

1. Overview of Kulakowski and Motivation to Apply Kulakowski's Teachings in Implementing Mgrdechian

While **Mgrdechian** discloses that device “ID’s are...dynamic or pseudo-random” (Mgrdechian, 5:1-3), **Kulakowski** expressly discloses the implementation detail of a “unique identifier” including a “covert identifier generated for the client device” that “may be based on any operational characteristic or event of a client device which changes over time and which can be stored...by the client device and server.” *E.g.*, Kulakowski ¶¶8, 15. **Kulakowski** discloses the covert identifiers enhance security of communications between client devices and between client devices and a server. Kulakowski ¶¶63, 73; Williams ¶94. Specifically, the identifier is “unique to that particular client device” and “may be updated periodically.” *E.g.*, Kulakowski ¶8. **Mgrdechian** does not expressly state that when its dynamic identifiers are changed, the new identifier has not previously been used. **Kulakowski** expressly provides this additional implementation detail: using new, never-used device identifiers that are updated in coordination with the server. *E.g.*, Kulakowski ¶¶8, 48. Williams ¶¶94-95, 188.

A POSITA would have been motivated, and would have found it advantageous, to apply **Kulakowski's** teachings described above in implementing

Mgrdechian's “dynamic” device identifier. Williams ¶96. Like **Mgrdechian**, **Kulakowski** is in the same field of art and is analogous art to the '842—all are in the same field related to wireless communication systems. *E.g.*, Kulakowski ¶¶8, 85; Williams ¶98. **Kulakowski** is also reasonably pertinent to the alleged problem identified in the '842 of preventing fraud and spoofing in client-server communications. *E.g.*, '842, 2:39-51; Kulakowski ¶2; Williams ¶98. A POSITA would have been motivated to apply **Kulakowski's** known teachings of covert, changing identifiers in implementing **Mgrdechian's** “dynamic” device identifiers. Williams ¶97. Such application would advantageously improve security and detect spoofed or “clone” client wireless devices. *E.g.*, Kulakowski ¶¶8, 15, 48; **Mgrdechian**, 4:65-5:3, 5:21-30; Williams ¶97. **Kulakowski** explains that the “covert identifier” of a client device “changes over time” based on coordination with the server, such as by “sending or receiving a predetermined message at the client device or server.” *E.g.*, Kulakowski ¶8. Subsequently, the server compares covert identifiers received in client messages “with the stored covert identifier,” and if “there is no match between any part of the covert identifiers, the server...indicat[es] that a potential clone has been detected.” *E.g.*, Kulakowski ¶48. Moreover, a POSITA would have been motivated to apply **Kulakowski's** known teachings of changing a covert identifier periodically because **Kulakowski** teaches that such changes enable the server to advantageously detect spoofed client devices, as an

outdated covert identifier of a spoofed client device would not match the updated covert identifier of the genuine device, and changing ID periodically makes it more difficult to discover the new covert identifier by hacking. *E.g.*, Kulakowski ¶¶46-48, 88; Williams ¶¶97-98. Indeed, such an application would have been nothing more than applying **Kulakowski**'s known technique of updating a device identifier over time to improve **Mgrdechian**'s similar wireless device that uses a dynamic "ID" in the same way. Williams ¶¶94, 97-98, 188.

In light of the above, a POSITA would have found it routine, straightforward and advantageous to apply **Kulakowski**'s known teachings of periodically changing covert identifiers in implementing **Mgrdechian**'s teachings of "dynamic" device identifiers and would have known that such a combination (yielding the claimed limitations) would predictably work and provide the expected functionality. Williams ¶99.

2. Claim Chart—Mgrdechian in view of Kulakowski

Claim Element	<u>Mgrdechian in view of Kulakowski</u>
[22] The method claim 5 wherein said authentication information is based at least in part upon said identifier not having been previously used.	<p><i>See</i> §IX.A.[22].</p> <p>To the extent it is argued that additional disclosure is required, Kulakowski discloses said identifier not having been previously used (<i>e.g.</i>, "unique" "covert identifier...changes" after "sending...a predetermined message at the client device").</p> <p><u>E.g., Kulakowski:</u></p>

Claim Element	<u>Mgrdechian in view of Kulakowski</u>
	<p>To the extent further disclosure is required beyond Mgrdechian’s “dynamic” IDs, Kulakowski discloses a client-server system wherein client devices authenticate using a “unique identifier” including a “covert identifier” that is “updated periodically” by the server based on an “operational event[]” such as the server “sending a predetermined message to the device.” Kulakowski ¶¶8, 15, 47-49. For example, the unique identifier is updated “at each subsequent communication.” <i>Id.</i> ¶9. As discussed in §IX.C.1, a POSITA would have been motivated to apply Kulakowski’s teachings of using an updated unique covert identifier with Mgrdechian’s “dynamic[ally]” changing “ID” so that clones using outdated identifiers can be detected and the profile information retrieved by the server for authentication purposes is performed using only an identifier that has not previously been used.</p> <p>Mgrdechian, 4:65-5:3, 5:4-10, 6:20-29, 7:28-32, 8:1-4, 12:18-23, 14:49-63, 16:29-32. Williams ¶¶96-99.</p> <ul style="list-style-type: none"> • ¶8 (“The <i>covert identifier</i> generated for the client device may comprise one or more covert data values collected and stored by a client device, or a transformed version of such covert data values, and <i>may be based on any operational characteristic or event of a client device which changes over time</i> and which can be stored by the client device, or by the client device and server....An operational characteristic of a client device as referenced herein is an event which occurs at or in connection with the client device and which is unique to that particular client device, <i>such as a time at which a predetermined operational event occurs, for example sending or receiving a predetermined message at the client device or server....</i>”) • ¶8 (“<i>Covert identifiers may be updated periodically using new operational events</i> to provide the covert

Claim Element	<u>Mgrdechian in view of Kulakowski</u>
	<p>data values, to further reduce the risk of successful hacking.”)</p> <ul style="list-style-type: none"> • ¶9 (“A covert data value may comprise data received in a message from the server and used in a subsequent message to the server. <i>This value may be updated by the server at each subsequent communication.</i> In this way, the server recognizes that there is a potential clone device if a message is received which does not contain the updated covert data value....”) • ¶15 (“<i>The covert data therefore provides a unique identifier for a particular client device</i> which is stored by the client device and subsequently used in messages to a server. ...[T]he unique covert identifier can be provided to the network in <i>a periodic renewal procedure....</i>”) • ¶48 (“In step 40, a client device sends a message to the server containing a covert identifier in covert data field 18....The server...compares the covert identifier with the stored covert identifier <i>The server determines whether there is a match (step 45) based on the comparison,</i> i.e. determines whether there is a match between any part of a stored covert identifier and the covert identifier in the message. <i>If a match is found, the server sends a message reply when appropriate to the client device (step 48), stores the new covert identifier, and the desired service or transaction takes place.</i> If a match is not found, i.e. there is no match between any part of the covert identifiers, the server generates a report to the operator indicating that a potential clone has been detected (step 46), and an optional flag may be set in memory.”) • Fig. 4:

Claim Element	<u>Mgrdechian in view of Kulakowski</u>
	<pre> graph TD 40[Client Device Sends Message to Server Containing Covert Identifier] --> 42[Server Receives Message and Extracts Covert Identifier] 42 --> 44[Server Compares Covert Identifier in Message With Previous Stored Covert Identifier for Same Client Credentials] 44 --> 45{Do covert identifiers match?} 45 -- No --> 46[Server Reports Clone Detected] 45 -- Yes --> 48[Send Reply to Client Device] </pre> <p style="text-align: center;">FIG. 4</p> <p><i>See also ¶¶47, 49.</i> <i>Williams ¶¶189-192.</i></p>

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, 193-194. Indeed, as demonstrated by the prior art referenced herein, any purported problems, solutions or unexpected results in the '842 were already well known. Williams ¶194. For example, the alleged needs 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.” '842, 2:5-12. Nevertheless, to the extent PO argues that any of the claims satisfy unmet needs, the prior art already met these alleged needs for the reasons discussed in §IX. Williams ¶¶73-192. 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 '842. Claims 1, 5, 9, 12, 14, 15, 22, and 24 are anticipated and all Challenged Claims are rendered obvious for the reasons set forth above. Williams ¶¶195-199. There is a reasonable likelihood that Petitioner will prevail as to each of those claims. *Inter Partes* review of claims 1, 5, 9, 12-15, 22, and 24 is accordingly requested.

Dated: May 27, 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 12,690 words as counted by the word processing program used to prepare the paper.

Dated: May 27, 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 '842 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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