

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TARGET CORPORATION,

Petitioner,

v.

PROXICOM WIRELESS, LLC,

Patent Owner.

Case IPR2020-00931

U.S. Patent No. 8,090,359

PETITION FOR *INTER PARTES* REVIEW

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Ex. 1022- Ex.1025	Reserved
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Ex. 1030	Petitioner's Ranking and Explanation of Multiple Petitions

Pursuant to §§311-319 and §42,¹ Target Corporation (“Petitioner”) petitions for *inter partes* review (“IPR”) of claims 1-5, 14-18, 27, 31, 36-37, 42-43, 48-49, and 52-55 (“Challenged Claims”) of U.S. Patent 8,090,359 (“’359”) (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 ’359’s purported invention is the use of a “central server” to “broker the exchange of information between” two entities associated with two wireless devices. ’359, Abstract. “Rather than directly exchanging application data flow between the two devices using [a] short range wireless capability, a second wireless capability allows for one or more of the devices to communicate with a central server via the internet” to perform the exchange. *Id.*; Williams ¶39.

The ’359 admits that, prior to the alleged invention, wireless devices already were configured to use both the short-range and wide-area connections claimed in

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.

the '359. *Id.*, 2:11-23 (admitting “[m]ost mobile phones on the market today support at least two wireless standards; one for the cellular wireless wide area network connection (WWAN) and one for a wireless personal or local area network” such as “Bluetooth”). The '359 also admits that prior art systems already were using wireless devices for e-commerce applications. *Id.*, 1:55-60; Williams ¶¶40-41. And as recognized during prosecution, the prior art already taught using a central server communicating with one or more devices over a wide-area network to broker the exchange of information between such devices communicating via a short-range network. *See* §VI; Williams ¶42.

The only purportedly novel elements of the '359 Challenged Claims are the specific recitations of what “information” is returned to a first wireless device from the server. For example, independent claims 1 and 14 require the “information” to be related to *any one* or more of: (1) “feedback ratings relevant to an entity associated with” either of the device identifiers; (2) “information representing a reward” for “participation in a loyalty program”; or (3) “a current step in a multiple step” electronic commerce transaction. But, as discussed herein, it was already well known to transmit such information over a network, including a network conforming to the claimed arrangement of two wireless devices communicating over a short-range network and a server communicating with one or both devices across a wide-area network. Williams ¶¶43-59.

For example, **Perttila** (Ex. 1006) discloses a known system for a remote server to communicate “service data” to a user in response to “electronic communications between a user communications device and a merchant-media arrangement.” *E.g.*, Perttila ¶[0008]. The merchant-media arrangement is a “billboard or any other...source” conveying promotional content associated with a merchant and communicating with the user communications device over a “short-range communication link,” such as a “Bluetooth” “beacon device.” *Id.*, ¶¶[0009], [0026], [0037]. As further discussed below, a user’s communication device, such as a cellular phone, receives a “merchant-media ID code” over the short-range link from the merchant-media arrangement when the two are in proximity. *Id.*, ¶¶[0015], [0037]. The user’s device generates and sends a message that includes the merchant-media ID code to the server over “a mobile network [] and/or the Internet.” *Id.*, ¶¶[0009], [0015], [0036]-[0038]. The server responds with “merchant based service information,” such as a “personalized” “user-redeemable electronic coupon” relating to the content promoted by the billboard, which can be “validated to facilitate merchant transactions” in an “electronic commerce arrangement.” *Id.*, ¶¶[0009], [0011], [0025], [0028], [0031], [0038], [0040].

Thus, as further explained below, **Perttila** anticipates claims 1-5, 14-18, 27, 31, 36-37, 42-43, 48, 52, and 55 and, at minimum, renders obvious these claims as well as claim 49.

As to claims 53, and 54, **Insolia** further makes explicit implementation details for a server interacting with a consumer's wireless device that render these claims obvious when **Insolia**'s teachings are applied in implementing **Perttila**. **Insolia** teaches a system for a "loyalty server" to "implement[] a loyalty program" for customers on behalf of a "good or service, brand, company, or other entity." *E.g.*, **Insolia**, 2:15-23, 6:32-37, 8:44-60. The server provides "loyalty point[s]" to a user when the user's "personal terminal" comes into proximity with an "interaction terminal...associated with a product or service." *Id.*, 2:15-23, 8:44-60, 9:61-64. And as to claims 27 and 31, to the extent it is argued that further disclosures is required beyond **Perttila**, **Insolia**'s teachings of limiting the rate at which loyalty points are awarded further render these claims obvious when **Insolia**'s teachings are applied in implementing **Perttila**. Thus, as further explained below, **Perttila** in view of **Insolia** renders obvious claims 27, 31, 53, and 54.

Thus, and as explained further below, the prior art anticipates and, at minimum, renders obvious the Challenged Claims. At best, the claims of the '359 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 **Perttila** and, 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 consider **Perttila**, **Insolia**, or any other reference providing analogous disclosures during prosecution of the '359. Had such references been available and 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 '359, 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 '359 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).

Petitioner is challenging the '359 in two petitions due to the length and differences of the claims challenged, and provides a further explanation of these parallel petitions in Ex. 1030:

Patent No.	Challenged Claims
This Petition	1-5, 14-18, 27, 31, 36-37, 42-43, 48-49, and 52-55
IPR2020-00932	9, 22, 28, 35, 38-41

The following table lists matters regarding related patents:

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

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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. 001008-0037-651.

IV. REQUIREMENTS FOR INTER PARTES REVIEW

A. Grounds for Standing

Pursuant to §42.104(a), Petitioner certifies that the '359 is available for IPR. Petitioner is not barred or estopped from requesting IPR challenging the claims of the '359 on the grounds identified herein.

B. Identification of Challenge

Pursuant to §§42.104(b), Petitioner requests IPR of claims 1-5, 14-18, 27, 31, 36-37, 42-43, 48-49, and 52-55, and that the Board cancel the same as unpatentable. The '359 matured from U.S. Application 12/364,828 (filed 02/03/2009), and claims priority 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 ¶¶78-79.

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
Perttila	1006	U.S. 2004/0243519	6/2/2003	12/2/2004	§102(b)
Insolia	1008	U.S. 8,121,917	3/3/2008	2/21/2012	§102(e)

These references were not cited in an Information Disclosure Statement (“IDS”) or otherwise identified by the Examiner, or applied in a rejection of the claims during prosecution of the '359. The Examiner never considered the grounds presented herein or the testimony of Petitioner’s expert David Williams (“Williams,”

² Petitioner takes no position as to the propriety of the priority claims since the art presented herein predates the earliest possible filing of the '359. Petitioner reserves the right to challenge these priority claims.

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 10/0/2019, 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 ’359; PO served its infringement contentions on 02/10/2020 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 second petition concerning this patent (IPR2020-00932) challenges

some claims not asserted in the litigation; (5) the litigation and PTAB parties are the same; and (6) as demonstrated herein, the Challenged Claims are anticipated, and at minimum rendered obvious, by art that the USPTO never considered 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	Perttila	§102	1-5, 14-18, 27, 31, 36-37, 42-43, 48, 52, 55
2		§103	1-5, 14-18, 27, 31, 36-37, 42-43, 48-49, 52, 55
3	Perttila in view of Insolia	§103	27, 31, 53, 54

3. How the Challenged Claims Are Unpatentable

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

V. THE '359 PATENT

The '359 describes techniques for using a server to broker the exchange of information between wireless devices. '359, Abstract. The background section of the '359 concedes that wireless devices, such as mobile phones, already had access to both a “wide area” cellular connection, and local “Bluetooth” connections that permit “peer to peer” communications. '359, 1:26-37, 2:24-35. The '359 combines these two well-known communication methods, describing methods for exchanging

of information using “both a short range and a long range wireless capability.” ’359, 2:53-57. Williams ¶¶60-61.

The ’359’s embodiments are directed to some variant of the same general functionality: (1) send an identifier from a second device to a first device using a short-range connection between the devices; (2) communicate the received identifier from the first device to a server; and (3) determine additional information that the server should communicate back to one or both devices. For example, Figure 1 of the ’359 shows that “a central server 100 is connected to devices 106 and 108” through a combination of the Internet, and a “cellular network 102.” ’359, 5:44-53. The devices are also able to communicate directly with each other via “a short range wireless link 107 such as a Bluetooth.” ’359, 6:33-37.

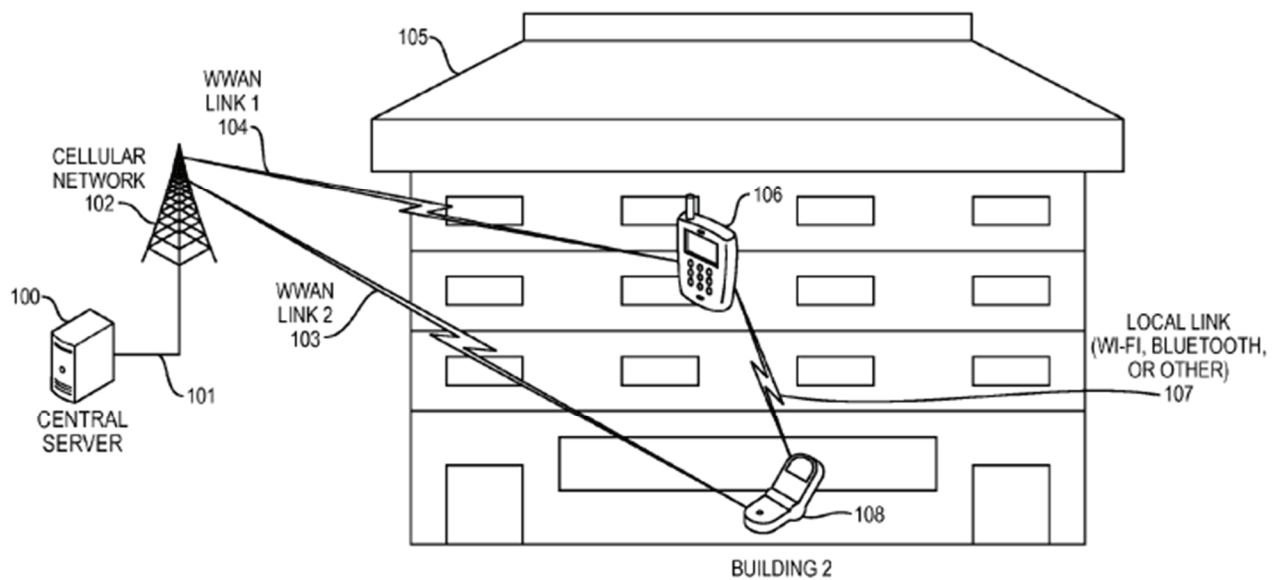


Figure 1

'359 Fig. 1. Williams ¶¶62-63.

Rather than the two devices exchanging information directly, the '359 uses a server to broker the information exchange. The '359 states that a first wireless device performs an identifier search and detects a device identifier from a second wireless device. *E.g.*, '359, 11:31-34, 14:41-52. The first wireless device transmits this received identifying information to a “central server” using a cellular or Internet connection, and the server returns “information associated with that [second] device identifier.” '359, 11:34-39, 14:48-60, 17:26-34. Examples of such information include “an electronic coupon available for download” based on the user’s proximity to a broadcast device, and a “list of items for sale from the merchant” associated with a second device identifier. '359, 14:41-60, 17:55-18:5. The '359 further discloses that the server is operable to facilitate transactions between the wireless devices. *E.g.*, '359, 3:40-54. According to the '359, this arrangement allows the server to be used in “electronic commerce applications” and to “facilitate the purchas[e] of goods or services” between the merchant and customer. *E.g.*, 17:35-18:5. Williams ¶¶64-66.

VI. PROSECUTION HISTORY

U.S. Patent Application 12/364,828, which matured into the '359, was filed 02/03/2009. The originally filed claims were generally directed to using “a central server to exchange information between one or more wireless devices” by “receiving

identifier information...collected by a first wireless device from a second wireless device,” storing the “identifier information,” and delivering “information or a service to the first wireless device.” ’359 FH (Ex. 1002), 55-59; Williams ¶¶67-68.

The Examiner twice rejected pending independent claims 1 and 14 as anticipated by U.S. Patent No. 7,213,742 (“Birch”). *Id.*, 119-123, 165-175. The Applicant cancelled pending independent claims 1 and 14 and added new independent claims 27-58 (issued claims 1, 27-56, and 14, respectively) in a Request for Continued Examination filed on 12/22/2010, following an interview conducted on 11/3/2010. *Id.*, 192-194, 200-213. The new independent claims incorporate an “arrangement where the central server collects device identifier information from a second wireless device via a first wireless device, and then...takes further action to deliver information or a service to the first wireless device based at least in part on that second device identifier.” *Id.*, 214-215. The Examiner issued a Notice of Allowance on 7/1/2011 allowing all pending claims and stating the newly added limitation “in combination with the remaining limitations recited in the claims” is “nowhere disclose[d]” in the reviewed prior art. *Id.*, 238-240. The ’359 patent issued 1/12/2012. Williams ¶¶69-70.

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 ¶¶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). 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.

While the Challenged Claims use terms of degree (e.g., “short range” communication/link, “wide area” link/network/technology, “local [area/wireless] link”), the prior art relied on herein discloses the ’359’s examples of those terms as shown in §IX below. *See e.g.*, ’359 10:58-60 (“WWAN [wireless wide area network] (cellular data link such as GPRS, EDGE, 1xEV-DO, IS-2000, Wi-Max, LTE, or the like)”), 5:61-64 (“[c]ommunications network(s) providing the

connection 101 can typically be part of...a global network (e.g., the *Internet*”), 17:50-52 (“The device detects a broadcast device, and interacts over the *internet* with the server via the WWAN connection...”), 19:46-48 (“a local, or personal area network wireless protocol such as ... *Bluetooth*”). Williams ¶¶71-76.

Likewise, regardless of whether a server can “exchange information between” *just* “one” wireless device, the prior art relied on herein discloses the exchange of information between at least two wireless device as shown in §IX. Williams ¶77.

A district court in another proceeding has construed terms of this patent, but these constructions do not impact the outcome of this IPR as the prior art discussed in §IX meets the limitations under these constructions. *See* Ex. 1021. Williams ¶71.

IX. GROUNDS OF UNPATENTABILITY

The ’359 is directed to a method and system for facilitating communications between two wireless devices through a server. At their core, the claims are directed to (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) the server determining information concerning an entity or object near the second [wireless] device; and (4) delivering information or a service to the first wireless device relating to the received identifier and one or more of “feedback ratings relevant to an entity associated with either the first wireless device or the second device[,]...information representing a reward for an

entity associated with the first device's participation in a loyalty program[, or]...a current step in a multiple step process for an ongoing electronic commerce transaction." The claimed features are anticipated and, at minimum, obvious in view of the prior art, as explained below. Williams ¶¶80-81, 109.

For example, **Perttila** discloses a system for facilitating communications between a user's wireless communications device and a wireless merchant media arrangement through a remote server. **Perttila** discloses all the claimed features of independent claims 1 and 14, including the devices exchanging "identifiers" over a short-range communication link, and the server (i) associating identifiers received from the first wireless device with information concerning a user and/or promotional object near the second wireless device, and (ii) returning "an appropriate electronic commerce application" to the user's device based on the received device identifier[s] and an ongoing electronic commerce transaction. **Perttila** also describes the additional limitations recited in the challenged dependent claims, including the server, e.g.: (i) delivering electronic coupons, advertising information, and information relating to products or services; (ii) facilitating a purchase of goods or services; and (iii) providing information based on a history of past detections of identifier information. Williams ¶¶108-110.

As to claims 53, and 54, **Perttila** in view of **Insolia** renders these claims obvious. **Insolia's** teachings of limiting the number of e-coupons a server sends

based on the customer's history of detections of the "interaction terminal" would have been obvious to apply in implementing **Perttila's** server, which delivers personalized "e-coupons" based on the customer's profile and the customer's device's detection of the merchant-media arrangement (the second wireless device). And to the extent it is argued that further disclosure is required beyond **Perttila** for claims 27 and 31, **Perttila** in view of these teachings of **Insolia** renders obvious these claims as well. Williams ¶¶222-223.

As shown below, the cited prior art renders the Challenged Claims of the '359 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 '359. Williams ¶¶39-240.

A. Grounds 1 and 2: Claims 1-5, 14-18, 27, 31, 36-37, 42-43, 48-49, 52, and 55

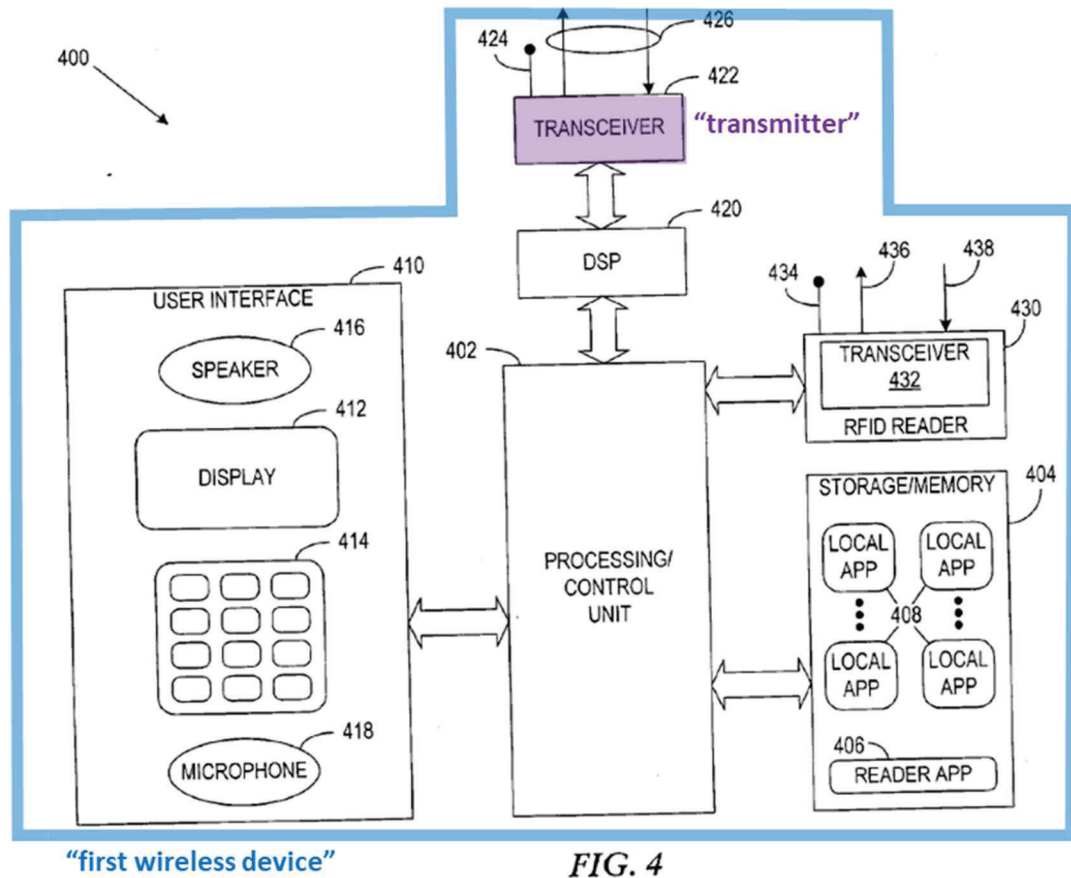
As further set forth below, claims 1-5, 14-18, 27, 31, 36-37, 42-43, 48, 52, and 55 are anticipated by **Perttila**. However, as further described below for particular limitations, to the extent it is argued that further evidence is required for those limitations, a POSITA would have found the limitations, as well as claim 49, obvious over **Perttila**.

1. Overview of Perttila

Perttila teaches a system and method for a remote server to communicate “service data” to a user in response to “electronic communications between a user communications device and a merchant-media arrangement.” *E.g.*, Perttila ¶¶0008]. The merchant-media arrangement is a “billboard...which may be stationary or mobile” conveying promotional content associated with a merchant and communicating with the user communications device over a “short-range communication link.” *Id.*, ¶¶0009], [0026], [0028]. **Perttila** discloses “co-locat[ing]” the merchant-media arrangement with a wireless “Bluetooth” “beacon device” to enable this communication. *Id.*, ¶¶0037]. Additionally, **Perttila** discloses that the merchant-media arrangement can include a wireless device (“a portable add-on media communications arrangement”) in addition to a conventional advertising arrangement. *Id.*, ¶¶0060]. To the extent it is argued that further disclosure of a wireless merchant-media arrangement is required, at minimum, it would have been an obvious implementation choice to use a wireless merchant-media arrangement, such as a mobile battery-powered device, to advantageously enable easy location of the portable device in a store (*e.g.*, without having to plug the device into an outlet). Williams ¶¶82-83.

The user communications device is a “mobile communications device,” which may be “any number of wireless devices,” *e.g.*, a “wireless/cellular telephone[,]”

associated with a user. Perttila ¶[0064]. A POSITA would have understood that the mobile network uses known standards, such as EDGE and LTE, which the '359 admits were known in the field, and in implementing **Perttila**, at minimum, it would have been obvious to advantageously use known and existing networks. *Id.*; '359, 1:26-37; Williams ¶84. An example user communications device is shown in Fig. 4, including its “processing/control unit 402, such as a microprocessor...or other central processing module” and “transceiver 422” for communicating with the server, among other components. *Id.*, ¶[0065], [0072].



Perttila Fig. 4; Williams ¶84.

As illustrated below in Fig. 1a, the “user communications device” (annotated blue) receives a “merchant-media ID code” from the “merchant-media arrangement” (annotated yellow) over the wireless short-range link (annotated green) when it is within range. *Id.*, ¶¶[0015], [0037]. In response to receiving the merchant media ID, **Perttita** teaches that the user communications device generates and sends “a merchant information request signal that includes the merchant-media ID code” to the remote server (annotated purple). *Id.*, ¶¶[0009], [0015]. The user communications device 28a sends the merchant media ID (e.g., “tag ID”) to the server 24 over a link provided by “a mobile network 44 and/or the Internet 48” (annotated red). *Id.*, ¶¶[0026], [0038].

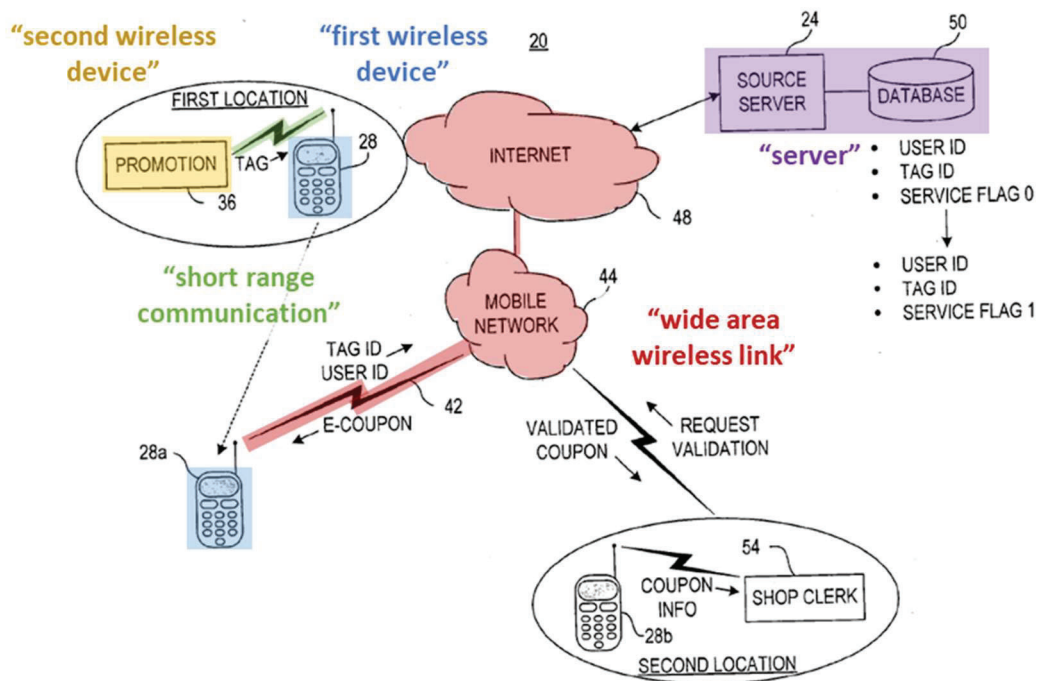


FIG. 1a

Perttola Fig. 1a; Williams ¶85.

Perttola teaches that, after receiving the merchant information request signal, the server “extracts [and stores] the user/terminal ID along with the tag (merchant media) ID from the request” in order to generate “merchant-based service information,” such as “a user-redeemable electronic coupon” and “pricing information for a particular...product, service,” to provide to the user. *Id.*, ¶¶[0011], [0025], [0038], [0040]; Williams ¶86.

Perttola teaches that the server associates the received merchant media ID with a “service information data set” provided to the user visiting the merchant-media arrangement. Perttola ¶¶[0009], [0027]-[0028]. The server uses the merchant ID code to “identify the type of product conveyed by the merchant media arrangement” and “determine the location of the merchant media arrangement.” *Id.*, ¶¶[0029], [0033]. For example, **Perttola** discloses locating the merchant media arrangement “at the store itself.” *Id.*, ¶[0039]. In this way, the server sends to the user communications device an “electronic coupon” that “correspond[s] to the merchant-media’s ID code,” such as “offerings” in the store. *Id.*, ¶¶[0015], [0039]. The e-coupon offering is in the form of “an electronic data set,” or “Java Midlet[...downloadable by the user’s mobile terminal.” *Id.*, ¶¶[0011], [0015], [0034]. Further, the server retrieves and transmits to the user communications device a list of items or services to which the offering may be applied. *Id.*, ¶¶[0026],

[0044]-[0050]. For example, **Perttila** discloses a list of items on “a restaurant menu or a recipe” based on a “billboard...promoting a food product,” or a list of movie showtimes based on a “movie ticket” that was purchased earlier. *Id.*, ¶¶[0026], [0044], [0046]-[0050]. Williams ¶87.

Perttila teaches personalizing the offering based on the requesting “user[’s] profile information,” which is retrieved from a database using the “user/terminal ID” (e.g., MSISDN and BD_ADDR) received from the user communications device. *Id.*, ¶¶[0031], [0038], Fig. 1b. Additionally, the server’s “database” stores “user/terminal ID along with [previously received] tag (merchant-media) ID[s]”—a history of the user’s past behavior that is also used to personalize the coupons. **Perttila** ¶¶[0031], [0038], [0042]-[0043]. At minimum, it would have been obvious to personalize the coupons based on this information, which reflects the past coupons that the user has received and used, to advantageously provide a more targeted advertisement. *Id.*; Williams ¶88. Additionally, **Perttila** discloses the server collecting user responses to questions “regarding user demographics” to further personalize the offering. *E.g.*, **Perttila** ¶[0070]. The server stores “[t]he extracted user/terminal ID and the tag ID” from the merchant information request signal for subsequent validation of the coupon. *Id.*, ¶¶[0038], [0042]. Williams ¶88.

Perttila discloses a consumer redeeming the coupon to facilitate “merchant transactions” involving the purchase of goods or services. *Id.*, ¶¶[0028], [0042],

[0053]. The server initiates coupon redemption in response to receiving a redemption or “void request” from a redemption data-processing station in the store, wherein the request includes the requesting user ID and merchant ID. *Id.*, ¶¶[0041], [0053]. The server first “performs coupon-verification and credit actions” to “ensure that the user has rights to use the...offering.” *Id.*, ¶¶[0042]-[0043]. To see whether the offering is valid and verify the user’s identity and that the user may redeem the coupon, the server checks whether its database has “a file with user ID and tag [merchant] ID” of the request, which correspond to the user’s account and the merchant’s account, respectively, and if so, “records a service flag to indicate that the coupon is valid.” *Id.*, ¶¶[0039], [0041]-[0043], Fig. 1b. A POSITA would have understood that the server has a processor to perform coupon verification. Williams ¶89. It would have been well known to a POSITA that servers make use of a processor, as the ’359 patent admits (’359, 6:1-10), and it would have been an obvious design choice to include such a processor in the server to perform coupon verification to advantageously facilitate a merchant transaction based on these disclosures. Williams ¶89. In this way, the coupon is “redeemed” and “void[ed]” to complete a “merchant transaction[.]” *Id.*, ¶¶[0028], [0042]. Williams ¶89.

Perttila discloses that the server receives customer confirmation of receipt of a good or service from the mobile communications device to complete a transaction when the user redeems the coupon, e.g., a previously purchased movie ticket. *E.g.*,

Perttila ¶¶[0028], [0042], Fig. 1b. For example, when the user's mobile communications device enters the theater and "read[s] the bookmark ID" associated with the theater, the mobile device sends the ID to the server, and causes the server to "determine the right phase of the service process and provide the right support for that phase" by causing "the [e]-ticket to enter next phase (i.e., ticket verification) in order to gain access to enter the movie theatre"—thus confirming the customer has received the service. *E.g.*, Perttila ¶¶[0045], [0053]. Williams ¶90.

Perttila is in the same field and is analogous art to the '359—both are in the same field related to the exchange of information between wireless communication devices in an e-commerce transaction. *E.g.*, '359, Abstract, 1:55-2:10, 2:45-40, 7:30-51, 11:20-30; Perttila Abstract, ¶¶[0001], [0007]-[0008]. **Perttila** is also reasonably pertinent to the alleged problem(s) identified in the '359 of the alleged need for a "third trusted party to help facilitate...electronic transaction[s]." *E.g.*, '359, 2:3-8; Perttila ¶¶[0006]-[0007]. For example, **Perttila** is directed to a system for information exchange for "electronic commerce" facilitated by a "remote server" "that is convenient and inexpensive" wherein communication with a "particular device or address" is "directed by a predetermined program or data stored at the server." *E.g.*, Perttila ¶¶[0007], [0025], [0035]. The '359 further identifies a need for e-commerce services that "cross validate the identities of the individuals engaged in the transaction," and "work in indoors locations." *E.g.*, '359, 2:8-10. **Perttila**

explicitly discloses “coupon verification” methods to “ensure that the user has rights to use the...offering,” and “short-range communication link[s]” that work indoors “for transmitting service-related information to requesting...[user] devices.” Perttila ¶¶[0016], [0026], [0042]-[0043]. Williams ¶¶91-92.

2. Claim Chart—Perttila

Claim Element	<u>Perttila</u>
<p>[1.pre] A method for a central server to exchange information between one or more wireless devices comprising the steps of:</p>	<p>Perttila discloses a method for a central server (e.g., “server”) to exchange information (e.g., “system for the communication”) between one or more wireless devices (e.g., “communications between a [wireless] user communications device and a merchant-media arrangement”).</p> <p><u>E.g., Perttila:</u></p> <p>Perttila discloses an “interactive communications system” for a remote server to communicate “service information...that corresponds to [a] merchant media” arrangement “in response to electronic communications between a [wireless] user communications device and [the] merchant-media arrangement.” <i>E.g.</i>, Perttila ¶¶[0008]-[0009]. As discussed above in §IX.A.1, a POSITA would have understood that Perttila discloses the portable merchant-media arrangement is wireless, and at minimum it would have been obvious to use a wireless merchant-media arrangement, such as a mobile battery-powered device that communicates wirelessly, to advantageously enable easy location in a store (e.g., without having to plug the device into an outlet). <i>Id.</i>, ¶[0060] (discussing “a portable add-on media communications arrangement”); Williams ¶113.</p> <ul style="list-style-type: none"> • [0019] (“FIG. 1a is <i>a system for the communication of an electronic coupon to a user via a link established with a source server by a mobile</i>”)

Claim Element	<u>Perttila</u>
	<p><i>communications device</i>, according to an example embodiment of the present invention.”)</p> <ul style="list-style-type: none"> <p>[0008] (“The present invention is directed to a system, apparatus, and method for <i>sending service data in response to electronic communications between a user communications device and a merchant-media arrangement</i> (e.g., audio and/or visual advertisements).”)</p> <p>Fig. 1a</p> <p style="text-align: center;">FIG. 1a</p> <p>[0009] (“...<i>an interactive communications system conveys service information to a user-communications device by way of a merchant-media arrangement.</i>”)</p> <p>[0012] (“...<i>[T]he user-communications device may be, for example, a wireless telephone....,</i>”)</p> <p>[0025] (“[T]he present invention is directed to use of local communication technology, to initiate electronic commerce, such as <i>retrieval of coupon-based information from a remote source server....</i> [L]ocal communication can be implemented in</p>

Claim Element	<u>Perttila</u>
	<p>various forms, such as using short-range RF communication technologies, to provide interaction between <i>a user's mobile communications device</i> (e.g., <i>mobile telephone or PDA</i>) and a communication-enhanced <i>merchant-media arrangement</i> that is adapted to convey necessary information for allowing the mobile communications device to request electronic commerce applications from the remote server.”)</p> <p><i>See also Perttila ¶¶[0011]-[0015], [0025]-[0027], [0037], [0041], [0060].</i></p> <p>Williams ¶¶111-113.</p>
<p>[1.a] the central server receiving second device identifier information from a first wireless device, the second device identifier information having been collected by the first wireless device from a second device and wherein said second device provides the second device identifier information to the first wireless device using short range communication without the use of wires from the second device to the</p>	<p>Perttila discloses the central server receiving second device identifier information from a first wireless device (e.g. “user-communications device” is a “wireless telephone” and “sends the ID signal [from the merchant-media arrangement] (along with the user's ID code in some implementations) to the remote source server”), the second device identifier information having been collected by the first wireless device from a second device and wherein said second device provides the second device identifier information to the first wireless device using short range communication without the use of wires from the second device to the first wireless device (e.g., “user-communications device picking up a short-range ID code from the merchant-media arrangement” wirelessly using “Bluetooth”).</p> <p><u>E.g., Perttila:</u></p> <p>Perttila discloses that the user communications device receives a “merchant-media ID code” from the “merchant-media arrangement” over a “short-range communication link such as a Bluetooth link” and transmits to the server “a merchant-information request signal that includes the merchant-media ID code.”</p>

Claim Element	<u>Perttita</u>
first wireless device;	<ul style="list-style-type: none"> <li data-bbox="587 310 1398 821">• [0009] (“<u>The merchant-media arrangement has a merchant-media ID code and is adapted to communicate service initiation information, including the merchant-media ID code, to requesting devices over a short-range communication link. The user-communications device is adapted to receive the service initiation information, including at least the merchant-media ID code, and in response to receiving the service initiation information, is adapted to send a merchant-information-request signal that includes the merchant-media ID code.</u>”) <li data-bbox="587 842 1419 1266">• [0015] (“In response to <u>the user-communications device picking up a short-range ID code from the merchant-media arrangement</u>, merchant-information-request signal representative of the merchant-media ID code and <u>the user-communications device establishes a link with a remote source server and sends the ID signal (along with the user's ID code in some implementations) to the remote source server</u> where an electronic coupon is generated.”) <li data-bbox="587 1287 1403 1371">• [0012]-[0014] (“...<u>the user-communications device may be, for example, a wireless telephone.</u>”) <li data-bbox="587 1392 1408 1894">• [0037]-[0038] (“An <u>RFID tag 38 is co-located at the merchant-media arrangement</u> at the first location (e.g., attached to the merchant promotional article 36), and is used to communicate a merchant ID code.... <u>As an alternative to using of the RFID tag 38, the merchant ID code can be communicated through an alternative short-range communication link such as a Bluetooth link...provided through a local short-range wireless access point or beacon device at said first location.... After receiving the merchant ID code and the link information at the first location, the telephone 28a establishes the link</u>”)

Claim Element	<u>Perttila</u>
	<p><i>42 with the source server 24</i> through a mobile network 44 and/or the Internet 48 with the received link information, depicted at block 74 of FIG. 1b.”)</p> <p>See also Perttila ¶¶[0012], [0016], [0020], [0025], [0027], [0029]-[0030], [0054]-[0055].</p> <p>Williams ¶¶114-116.</p>
<p>[1.b] said central server using the second device identifier information to determine one or more of an identity or related information concerning an entity or object located in proximity to the second device; and</p>	<p>Perttila discloses said central server using the second device identifier information to determine one or more of an identity or related information concerning an entity or object located in proximity to the second device (“remote source server” generates “an electronic coupon” “in the form of an electronic data set corresponding to the merchant-media's ID code,” “electronic coupon that corresponds to the content promoted by the billboard”).</p> <p><u>E.g., Perttila:</u></p> <p>Perttila discloses that the remote source server uses the “merchant-media ID” to “associate the promotional information with an e-coupon...linked to this particular location.” <i>E.g.</i>, Perttila, ¶¶[0027]-[0029], [0037], [0039]. The remote server uses the ID “to determine the location of the merchant media arrangement,” which is “located at the store itself,” and deliver relevant electronic coupon offerings for the store to the user’s mobile communications device indicating the presence of the “offerings” in the store. <i>Id.</i> The server generates an electronic coupon “in the form of an electronic data set corresponding to the merchant-media's ID code.” Perttila, ¶[0015].</p> <ul style="list-style-type: none"> • [0037] (“An RFID <i>tag 38 is co-located at the merchant-media arrangement at the first location (e.g., attached to the merchant promotional article 36), and is used to communicate a merchant ID code</i> (and, optionally, link information for connecting to the source server 24) to associate the

Claim Element	<u>Perttila</u>
	<p>merchant promotional article 36 with a particular coupon to be provided to the user 28. As an alternative to using of the RFID tag 38, <u>the merchant ID code can be communicated through an alternative short-range communication link such as a Bluetooth link</u>...provided through a local short-range wireless access point or beacon device <u>at said first location</u>. ... In any case, to receive the coupon information, the user physically visits the first location, and the mobile communications device receives <u>the merchant ID code which is ultimately received and processed by the source server 24</u> for generating the electronic coupon.”)</p> <ul style="list-style-type: none"> • [0039] (“For such electronic coupons, the user's terminal visits a second location such as a merchant-purchase center.... It should be noted that <u>the second location may also be the same as the first location</u>, for example, in cases where the <u>coupon offerings are provided to mobile users through tag or beacons located at the store itself</u>.”) • [0015] (“... <u>the user-communications device</u> establishes a link with a remote source server and <u>sends the ID signal</u> (along with the user's ID code in some implementations) <u>to the remote source server where an electronic coupon is generated</u>. <u>The electronic coupon is</u> sent to the user in the form of <u>an electronic data set corresponding to the merchant-media's ID code</u>.”) • [0027]-[0028] (“[T]he remote processing arrangement to provide the user with...a downloadable electronic coupon that corresponds to the content promoted by the billboard. <u>The merchant-media ID code is used to associate the promotional information with an e-coupon to be provided to the user visiting this billboard location</u>, which may be stationary or mobile (such as an

Claim Element	<u>Perttila</u>
	<p>advertising banner in a train or bus). In this manner, the <i>promotion information is linked to this particular location</i>, and the user visits and views the promotional information in order to receive the coupon offering.”)</p> <p><i>See also Perttila ¶¶0029</i>, Fig. 1b.</p> <p>Williams ¶¶117-118.</p>
<p>[1.c] subsequent to the step of the central server receiving the second device identifier information from the first wireless device, the central server taking further action to deliver information or a service to the first wireless device based at least in part upon (a) the second device identifier and (b) at least one of the following: ... (iii) a current step in a multiple step process for an ongoing electronic commerce transaction.</p>	<p>Perttila discloses subsequent to the step of the central server receiving the second device identifier information from the first wireless device, the central server taking further action to deliver information or a service to the first wireless device based at least in part upon (a) the second device identifier and (b) ... (iii) a current step in a multiple step process for an ongoing electronic commerce transaction (e.g., “remote server ... generate[s] and return[s] an appropriate electronic commerce application, such as an electronic coupon by relying on the merchant ID code to identify the type of product conveyed by the merchant media arrangement”; see Fig. 1b).</p> <p><u>E.g., Perttila:</u></p> <p>Perttila discloses that the remote server provides the mobile communications device with an “electronic commerce application, such as, an electronic coupon,” which corresponds to the received “merchant ID code,” and which can be “validated to facilitate merchant transactions” in an “electronic commerce arrangement.”</p> <ul style="list-style-type: none"> • [0009] (“<i>An electronic commerce arrangement adapted to generate</i>, in response to receiving the merchant-information-request, <i>a service information data set</i> that corresponds to the merchant-media ID code.”) • [0033] (“<i>The remote server can generate and return an appropriate electronic commerce application,</i>

Claim Element	<u>Perttila</u>
	<p><i>such as an electronic coupon by relying on the merchant ID code to identify the type of product conveyed by the merchant media-arrangement.”)</i></p> <ul style="list-style-type: none"><li data-bbox="589 457 1425 583">• [0015] (“<i>The electronic coupon is sent to the user in the form of an electronic data set corresponding to the merchant-media’s ID code.</i>”)<li data-bbox="589 604 1425 772">• [0028] (“<i>This electronic coupon can then be brought to a specific location where the coupon is validated to facilitate merchant transactions, e.g., discounts for the promoted merchant offerings.</i>”)<li data-bbox="589 793 760 835">• Fig. 1b:

Claim Element	<u>Perttila</u>
	<pre> graph TD 72[72: USER RECEIVES LINK INFORMATION VIA SHORT-RANGE COMMUNICATION] --> 74[74: USER ASSOCIATES LINK INFORMATION AND TRANSMITS TAG ID AND PERSONAL ID TO SOURCE SERVER; DOWNLOADS JAVA MIDLET INCLUDING E-COUPON] 74 --> 76[76: USER ACTIVATES THE JAVA MIDLET AND PROVIDES THE COUPON INFORMATION TO SHOP CLERK] 76 --> 78[78: SHOP CLERK (OR MOBILE TERMINAL) CONTACTS THE SOURCE SERVER FOR COUPON VALIDATION] 78 --> 80[80: SOURCE SERVER CHECKS/UPDATES DATABASE] 80 --> 82[82: COUPON IS VALIDATED AND THE OFFERING MAY BE REDEEMED] </pre> <p style="text-align: center;">FIG. 1b</p> <p><i>See also Perttila ¶¶</i>[0010], [0015], [0020], [0025]-[0027], [0029], [0031], [0034]-[0040], [0042], [0044]-[0045], [0051]-[0053], [0056]-[0058]. Williams ¶¶119-120.</p>
[2] The method of claim 1 wherein the information or	<p>See [1].</p> <p>Perttila discloses that the information or service delivered to the first wireless device is associated with</p>

Claim Element	<u>Perttila</u>
<p>service delivered to the first wireless device is associated with the entity or object that is located in proximity to the second device.</p>	<p>the entity or object that is located in proximity to the second device (e.g., see [1.b]-[1.c], “coupon offerings are provided to mobile users through ... beacons located at the store itself,” “electronic coupon that corresponds to the content promoted by the billboard”).</p> <p><u>E.g., Perttila:</u> See [1.b]-[1.c].</p> <p>In addition, Perttila discloses that the remote server uses information from the wireless beacons “to determine the location of the merchant media arrangement,” which is “located at the store itself,” and deliver relevant electronic coupon offerings for the store to the user’s mobile communications device indicating the presence of the “offerings” in the store.</p> <ul style="list-style-type: none"> • [0029] (“<i>The remote server can also use the merchant ID code to determine the location of the merchant media arrangement</i>; this determination is advantageous for coupons having location-dependent price and/or expiration periods restrictions.”) • [0037] (“<i>An RFID tag 38 is co-located at the merchant-media arrangement at the first location ...</i>, and is used to... associate the merchant promotional article 36 with a particular coupon to be provided to the user 28.”) • [0039] (“...It should be noted that <i>the second location may also be the same as the first location</i>, for example, in cases where the <i>coupon offerings are provided to mobile users through tag or beacons located at the store itself.</i>”) • [0027] (“<i>The link to the remote source server is obtainable by visiting this particular billboard location</i>...[A] link with the remote processing arrangement to <i>provide the user with electronic</i>

Claim Element	<u>Perttila</u>
	<p><i>commerce application, such as, a downloadable electronic coupon that corresponds to the content promoted by the billboard.”)</i></p> <p>See also Perttila ¶¶[0012], [0031]-[0032], Fig. 2. Williams ¶¶121-123.</p>
<p>[3] The method of claim 1 wherein the information delivered from the central server to the first wireless device includes at least one of</p> <p>advertising information;</p> <p>information relating to products or services; and/or</p> <p>information related to e-coupons.</p>	<p>See [1].</p> <p>Perttila discloses that the information delivered from the central server to the first wireless device includes at least one of advertising information; information relating to products or services; and/or information related to e-coupons (e.g., “the coupon-based information may ... involve a pricing information for a particular manufacturer, product, service, event, etc.”).</p> <p><u>E.g., Perttila:</u></p> <p>See [1.c].</p> <p>In addition, Perttila discloses that the mobile communications device receives “electronic coupon information,” such as “pricing information for a particular manufacturer, product, service, event, etc.” from the remote source server.</p> <ul style="list-style-type: none"> • [0025] (“Generally, the present invention is directed to use of local communication technology, to initiate electronic commerce, such as <u>retrieval of coupon-based information from a remote source server where the coupon-based information may or may not involve a pricing information for a particular manufacturer, product, service, event, etc.</u>”) • [0034] (“In more specific embodiments, <u>the electronic coupons (“e-coupons”)</u> are Java Midlets that <u>are downloadable by the user's mobile terminal</u> <u>The remote source server is adapted to provide</u>

Claim Element	<u>Perttila</u>
	<p><i>the electronic coupon information</i> in this Java Midlet form.”)</p> <p>See also Perttila ¶¶[0011]-[0013], [0021], [0031], [0035]-[0037], [0046]-[0050], [0056], [0069].</p> <p>Williams ¶¶124-126.</p>
<p>[4] The method of claim 3 wherein the information delivered from the central server to the first wireless device is information relating to e-coupons, and content of the e-coupons is customized based on at least one of:</p> <p>an identity of the requesting first device or associated account holder;</p> <p>other information accessible to the server related to the account holder;</p> <p>and/or</p> <p>past purchasing practices or previous requests of an account holder.</p>	<p>See [3].</p> <p>Perttila discloses that the information delivered from the central server to the first wireless device is information relating to e-coupons, and content of the e-coupons is customized based on at least one of: an identity of the requesting first device or associated account holder; other information accessible to the server related to the account holder; and/or past purchasing practices or previous requests of an account holder (e.g., see [1.c], “MSISDN and BD ADDR data may also be used to fetch user profile information from the remote server or from another entity in order to provide more personalized offering to the user”).</p> <p><u>E.g., Perttila:</u></p> <p>See [1.c], [3].</p> <p>In addition, Perttila discloses the server providing a “more personalized” electronic coupon offering based on “user profile information” associated with a “user/terminal ID” (e.g., MSISDN and BD ADDR) received from the user communications device and user responses to a questionnaire sent to the mobile communications device “regarding user demographics.”</p> <ul style="list-style-type: none"> • [0031] (“In another embodiment, <i>MSISDN and BD ADDR data may also be used to fetch user profile information from the remote server</i> or from another entity in order <i>to provide more personalized offering to the user.</i>”) • [0038] (“In various embodiments of the present invention, <i>the user/terminal ID may affect the</i>

Claim Element	<u>Perttila</u>
	<p><i>Midlet contents, so the offerings may be mobile-ized [sic] to the user</i> if there is a database 50 with user profile information already stored and accessible to the source server 24.”)</p> <ul style="list-style-type: none"> • [0070] (“In this example implementation, the remote server is an electronic commerce arrangement that <i>responds to the request by sending one or more electronic coupon information sets, each of which includes a group of questions, for example, as in an entertaining quiz or a profile regarding user demographics...</i> The answers are validated by the remote server and, <i>in response to a threshold number of correct answers, the electronic commerce arrangement sends an electronic coupon providing a validate-able discount for the particular product or event.</i>”) <p>See also Perttila ¶¶[0015], [0042], [0069]. Williams ¶¶127-130.</p>
<p>[5.pre] The method of claim 1 additionally wherein the first wireless device, upon detecting proximity of a second wireless device, further performs the steps of:</p>	<p>See [1].</p> <p>Perttila discloses the first wireless device detecting proximity of a second wireless device (e.g., “user-communications device picking up a short-range ID code from the merchant-media arrangement”).</p> <p><u>E.g., Perttila:</u></p> <p>See [1.pre].</p> <p>In addition, Perttila discloses that the mobile communications device picks up “a short-range ID code from” another “merchant-media arrangement” when visiting a location where the “merchant-media arrangement is featured.”</p> <ul style="list-style-type: none"> • [0037] (“[A] merchant promotional article 36, or <i>merchant-media arrangement is featured</i> by way of a poster or the like <i>at a first location</i>. An RFID tag 38 is co-located at the merchant-media

Claim Element	<u>Perttila</u>
	<p><i>arrangement at the first location... and is used to communicate a merchant ID code...</i> [T]he merchant ID code can be communicated through an alternative short-range communication link such as a Bluetooth link or an IrDa link provided through a local short-range wireless access point or beacon device at said first location....”)</p> <ul style="list-style-type: none"> • [0030] (“<i>The user's mobile communications device is equipped with an RFID reader adapted to emit RF activation waves, and transponders or “tags” brought within the range of the RFID reader are activated by the RF activation.</i>”) • [0015]-[0016] (“In response to <i>the user-communications device picking up a short-range ID code from the merchant-media arrangement...</i> The user-communications device, such as <i>a mobile phone...</i>”) <p>See also Perttila ¶[0072], Fig. 1a. Williams ¶¶131-133.</p>
<p>[5.a] reporting an identifier of the second wireless device to the central server over a second wireless link, the second wireless link being a wide area wireless link, and</p>	<p>Perttila discloses the first wireless device, upon detecting proximity of a second wireless device, further performs the step of reporting an identifier of the second wireless device to the central server over a second wireless link (e.g., “the user-communications device establishes a link with a remote source server and sends the ID signal [from the merchant-media arrangement] (along with the user's ID code in some implementations) to the remote source server”), the second wireless link being a wide area wireless link (e.g., “mobile network 44 and/or the Internet 48”).</p> <p><u>E.g., Perttila:</u> See [5.pre].</p> <p>In addition, Perttila discloses that “[i]n response to the user-communications device picking up a short-range ID</p>

Claim Element	<u>Perttila</u>
	<p>code from the merchant-media arrangement” the mobile communications device “sends the ID signal (along with the user's ID code in some implementations) to the remote source server” (“merchant-information-request signal”) over “link 42,” which can be “a mobile network 44 and/or the Internet 48.”</p> <ul style="list-style-type: none"> • [0015] (“<u>In response to the user-communications device picking up a short-range ID code from the merchant-media arrangement, merchant-information-request signal representative of the merchant-media ID code and the user-communications device establishes a link with a remote source server and sends the ID signal (along with the user's ID code in some implementations) to the remote source server</u> where an electronic coupon is generated.”) • [0036]-[0038] (“System 20 provides an electronic coupon in response to a link is established with a source server 24 by a user 28 having a mobile communications device; <u>in this example, the mobile communications device is a wireless telephone 28 (shown as telephone 28a while the link is being established)....</u> After receiving the merchant ID code and the link information at the first location, <u>the telephone 28a establishes the link 42 with the source server 24 through a mobile network 44 and/or the Internet 48</u>”) • Fig. 1a:

Claim Element	<u>Perttila</u>
	<p style="text-align: center;">FIG. 1a</p> <p>See also Perttila ¶¶ [0026], [0030]. Williams ¶¶ 134-135.</p>
<p>[5.b] retrieving current content from the central server associated with that device.</p>	<p>Perttila discloses that the first wireless device, upon detecting proximity of a second wireless device, further performs the step of retrieving current content from the central server associated with that device (e.g., the “user terminal” sends the “merchant-information-request signal” to the “remote source server,” which returns an “electronic coupon” to the “user terminal” “in the form of an electronic data set corresponding to the merchant-media's ID code”).</p> <p><u>E.g., Perttila:</u></p> <p>Perttila discloses that the mobile communications device generates and sends a “signal that includes...a merchant-media ID code for the merchant-media arrangement” to retrieve from the server current “coupon-based information” and an “electronic coupon that corresponds to the information conveyed by the merchant-media arrangement.”</p> <ul style="list-style-type: none"> • [0025]-[0026] (“Generally, the present invention is directed to use of local communication technology,

Claim Element	<u>Perttila</u>
	<p>to initiate electronic commerce, such as <u>retrieval of coupon-based information from a remote source server</u> where the coupon-based information may or may not involve a pricing information for a particular manufacturer, product, service, event, etc.... <u>for receiving electronic coupon information including various offerings.</u>")</p> <ul style="list-style-type: none"> • [0011] (“In response, the user-communications device cooperates with the merchant-media arrangement to generate <u>a merchant-information-request signal that includes at least a merchant-media ID code for the merchant-media arrangement. The merchant-information-request signal is then used to generate a user-redeemable electronic coupon that corresponds to the information conveyed by the merchant-media arrangement</u> (via the merchant-media ID code). In certain applications, <u>the electronic coupon is generated by and sent from a remote server in a Java Midlet that is downloaded for access and activation by the user.</u>”) • [0038] (“<u>When receiving the request from the terminal... the source server provides the user terminal with an option to download for example a Java Midlet that corresponds to the request.</u>”) • [0015] (“<u>The electronic coupon is sent to the user in the form of an electronic data set corresponding to the merchant-media's ID code.</u>”) <p>See also Perttila ¶¶[0012], [0029], [0037], [0053], [0069]. Williams ¶¶136-137.</p>
[14.pre] A server for exchanging information between one or more wireless	<p>See [1.pre]. Williams ¶¶142-143.</p>

Claim Element	<u>Perttala</u>
<p>devices, the server comprising:</p>	
<p>[14.a] a receiver, for receiving second device identifier information from a first wireless device, the second device identifier information having been collected by the first wireless device from a second device, and wherein said second device provides the second device identifier information to the first wireless device using a short range link from the second device to the first wireless device;</p>	<p>Perttala discloses the server comprising a receiver (e.g., server “receive[r]”) for receiving second device identifier information from a first wireless device (e.g., see [1.a]), the second device identifier information having been collected by the first wireless device from a second device, and wherein said second device provides the second device identifier information to the first wireless device using a short range link from the second device to the first wireless device (e.g., see [1.a]).</p> <p><u>E.g., Perttala:</u></p> <p><i>See [1.a]</i></p> <p>In addition, Perttala discloses that “the merchant ID code...is ultimately received and processed by the source server.” <i>E.g.</i>, Perttala ¶¶[0037]-[0038]. A POSITA would have understood that the server thus has a “receiver” in order to “receive” the second device identifier information from a first wireless device as expressly taught in Perttala (see [1.a]), and at minimum it would have been obvious to use the well-known component of a receiver to do so in order to advantageously receive the information. Williams ¶147.</p> <ul style="list-style-type: none"> • [0037]-[0038] (“...<i>the mobile communications device receives the merchant ID code which is ultimately received and processed by the source server 24</i> for generating the electronic coupon.... <i>When receiving the request from the terminal, the source server 24 extracts the user/terminal ID along with the tag (merchant-media) ID from the request...</i>”) <p><i>See also Perttala</i> ¶¶[0031]-[0032].</p> <p>Williams ¶¶144-147.</p>

Claim Element	<u>Perttila</u>
<p>[14.b] a storage device, for storing the second device identifier information and one or more of an identity or related information concerning an entity or object located in proximity to the second device; and</p>	<p>Perttila discloses the server comprising a storage device (e.g., “coupon-database,” “database 50”), for storing the second device identifier information and one or more of an identity or related information concerning an entity or object located in proximity to the second device (e.g., storing “electronic coupon,” which is later “sent to the user in the form of an electronic data set corresponding to the merchant-media's ID code,” “electronic coupon that corresponds to the content promoted by the billboard”).</p> <p><u>E.g., Perttila:</u> See [1.b], [2].</p> <p>In addition, Perttila discloses that the server stores coupons in “the database 50” according to “the user/terminal ID along with the tag (merchant media) ID,” which can later be used to look up and void the coupon in the database.</p> <ul style="list-style-type: none"> • [0038] (“When receiving the request from the terminal, the source server 24 extracts the user/terminal ID along with the tag (merchant-media) ID from the request.... The extracted user/terminal ID and <u>the tag ID are stored by the source server....</u>”) • [0027]-[0028] (“... <u>The merchant-media ID code is used to associate the promotional information with an e-coupon to be provided to the user visiting this billboard location,</u> which may be stationary or mobile (such as an advertising banner in a train or bus).”) • [0042] (“[T]he source server 24 performs coupon-verification and credit actions and updates its <u>coupon-database</u> accordingly. As a more specific example depicted at block 80 of FIG. 1b, <u>the source server 24</u> receives the void request, and then <u>checks the database 50 to determine whether the coupon is</u>

Claim Element	<u>Perttila</u>
	<p><i>valid. This validity check can be performed by searching the database for a file with user ID and tag ID of the void request.”)</i></p> <ul style="list-style-type: none"> Fig. 1a: <p style="text-align: center;">FIG. 1a</p> <ul style="list-style-type: none"> [0015] (“<i>The electronic coupon is sent to the user in the form of an electronic data set corresponding to the merchant-media's ID code.</i>”) <p>See also Perttila ¶¶[0029], [0035], [0075]-[0076], Fig. 1b. Williams ¶¶148-150.</p>
<p>[14.c] a transmitter, for subsequent to the step of receiving the second device identifier information from the first wireless device, delivering information or a service to the first wireless device based at least in part upon (a) the second</p>	<p>Perttila discloses the server comprising a transmitter (e.g., server transmitter), for subsequent to the step of receiving the second device identifier information from the first wireless device, delivering information or a service to the first wireless device based at least in part upon (a) the second device identifier and (b) ... (iii) a current step in a multiple step process for an ongoing electronic commerce transaction (e.g., see [1.c]).</p> <p><u>E.g., Perttila:</u></p> <p>See [1.c].</p>

Claim Element	<u>Perttila</u>
<p>device identifier and (b) at least one of ... (iii) a current step in a multiple step process for an ongoing electronic commerce transaction.</p>	<p>In addition, Perttila discloses that the electronic commerce application and e-coupon are provided to the mobile communications device from the server by a “[m]idlet transmission...over...communications link 42.” E.g., Perttila ¶¶[0033]-[0034], [0038]. A POSITA would have understood that the server thus has a “transmitter” in order to transmit the application and coupon to the mobile communications device as expressly taught in Perttila (see [1.c]), and at minimum it would have been obvious to use the well-known component of a transmitter to do so in order to advantageously send the information. Williams ¶153.</p> <ul style="list-style-type: none"> • [0033]-[0034] (“<i>The remote server can generate and return an appropriate electronic commerce application, such as an electronic coupon.... In more specific embodiments, the electronic coupons (“e-coupons”) are Java Midlets that are downloadable by the user's mobile terminal in response to the communications link to the remote source server, or by the equipment that establishes the link....</i>”) • [0038] (“The extracted user/terminal ID and the tag ID are stored by <i>the source server and the source server provides the user terminal with an option to download for example a Java Midlet that corresponds to the request. This Midlet transmission can occur over the same communications link 42 or over another subsequently-established link....</i>”) <p>See also Perttila ¶¶[0031], [0035]-[0036], [0056], [0075]. Williams ¶¶151-153.</p>
<p>[15] The server of claim 14 wherein the information or service delivered to the first wireless</p>	<p>See [14], [2]. Williams ¶¶154-155.</p>

Claim Element	<u>Perttita</u>
device is associated with the entity or object that is located in proximity to the second device.	
[16] The server of claim 14 wherein the information delivered from the server to the first wireless device includes at least one of advertising information; information relating to products or services; and/or information related to e-coupons.	<i>See</i> [14], [3]. Williams ¶¶156-157.
[17] The server of claim 16 wherein the information delivered from the central server to the first wireless device is information relating to e-coupons and the content of the e-coupons is customized based on at least one of: an identity of the requesting first	<i>See</i> [16], [4]. Williams ¶¶158-159.

Claim Element	<u>Perttila</u>
device or associated account holder; other information accessible to the server related to the account holder; and/or past purchasing practices or previous requests of an account holder.	
[18] The server of claim 14 additionally wherein the first wireless device comprises a transmitter for, upon detecting proximity of a second wireless device, reporting an identifier of the second wireless device to the server over a second wireless link, the second wireless link being a wide area wireless link, and receiving current content from the server associated with that device.	<p><i>See</i> [14].</p> <p>Perttila discloses the server of claim 14 additionally wherein the first wireless device comprises a transmitter (e.g., “transceiver 422”) for, upon detecting proximity of a second wireless device (e.g., see [5.pre]), reporting an identifier of the second wireless device to the server over a second wireless link, the second wireless link being a wide area wireless link (e.g., see [5.a]), and receiving current content from the server associated with that device (e.g., see [5.b]).</p> <p><u>E.g., Perttila</u></p> <p><i>See</i> [5.pre]-[5.b].</p> <p>In addition, Perttila discloses that the mobile communications device includes “transceiver 422” to “transmit[] and receive[] the radio signals 426 between the wireless device and the network.”</p> <ul style="list-style-type: none"> • [0064] (“<i>The mobile communications devices (or mobile terminals) described in connection with the present invention may be any number of wireless devices, such as wireless/cellular telephones, PDAs.... An example of a representative mobile terminal computing system capable of carrying out</i>

Claim Element	<u>Perttila</u>
	<p>operations in accordance with the invention <i>is illustrated in FIG. 4.</i>")</p> <ul style="list-style-type: none"> Fig. 4: <p style="text-align: center;">FIG. 4</p> <ul style="list-style-type: none"> [0071] (“<i>The transceiver 422, generally coupled to an antenna 424, transmits and receives the radio signals 426 between the wireless device and the network.</i>”) [0009] (“<i>The user-communications device is adapted to...send a merchant-information-request signal that includes the merchant-media ID code.</i>”) <p>See also Perttila ¶¶[0012], [0016], [0031]. Williams ¶¶160-162.</p>
<p>[27] The method of claim 1 wherein the further action is additionally based on a history of past</p>	<p>See [1].</p> <p>Perttila discloses the further action is additionally based on a history of past detections of device identifier information previously sent to the central server by the first wireless device (e.g., “MSISDN and BD ADDR data</p>

Claim Element	<u>Perttila</u>
<p>detections of device identifier information previously sent to the central server by the first wireless device.</p>	<p>may also be used to fetch user profile information from the remote server or from another entity in order to provide more personalized offering to the user,” server “database” stores “user/terminal ID along with [previously received] tag (merchant media) ID[s]”).</p> <p><u>E.g., Perttila:</u></p> <p><i>See [1.c].</i></p> <p>In addition, Perttila discloses that the server associates the mobile communications device ID received from the first device with stored “user profile information...to provide more personalized” electronic coupon offerings to the user. <i>E.g.</i>, Perttila, [0031], [0034], [0038]. The server’s “database” stores “user/terminal ID along with the [previously received] tag (merchant media) ID[s]” that can be used to personalize the coupons, and, at minimum, it would have been obvious to personalize the coupons based on this information as discussed above in §IX.A.1. Perttila ¶¶[0038], [0042]-[0043]; Williams ¶170.</p> <ul style="list-style-type: none"> • [0026] (“The transmitted information allows <i>the mobile communications device to initiate an electronic commerce application, for example by sending a request over cellular network to a remote server for receiving electronic coupon information including various offerings.</i>”) • [0034] (“In more specific embodiments, <i>the electronic coupons (“e-coupons”) are Java Midlets that are downloadable by the user's mobile terminal in response to the communications link to the remote source server...</i>”) • [0038] (“<i>When receiving the request from the terminal, the source server 24 extracts the user/terminal ID along with the tag (merchant-media) ID from the request.... The extracted user/terminal ID and the tag ID are stored by the source server and the source server provides the</i>

Claim Element	<u>Perttila</u>
	<p><i>user terminal with an option to download for example a Java Midlet that corresponds to the request.... In various embodiments of the present invention, <u>the user/terminal ID may affect the Midlet contents</u>, so the offerings may be mobile-ized to the user <u>if there is a database 50 with user profile information already stored and accessible to the source server 24.</u>”)</i></p> <ul style="list-style-type: none"> • [0031] (“...<u>MSISDN and BD_ADDR data may also be used to fetch user profile information from the remote server or from another entity in order to provide more personalized offering to the user.</u>”) • [0039] (“...<u>certain example types of electronic coupons (e.g., product offering with price discounts) may require validation and/or redemption.</u>”) • [0042]-[0043] (“...<u>the source server 24 receives the void request, and then checks the database 50 to determine whether the coupon is valid. This validity check can be performed by searching the database for a file with user ID and tag ID of the void request.</u> If such a file is found, the source server records a service flag to indicate that the coupon is valid (flag is set to “0”).... In this manner, <u>the coupon is validated and the offering can be redeemed</u> (Block 82 of FIG. 1b).... [A] <u>confirmation is typically received before providing the user with the coupon offering</u> to ensure that the user has rights to use the coupon offering.”) <p>See also Perttila ¶¶[0035], [0041]. Williams ¶¶167-170.</p>
<p>[31] The method of claim 27 wherein the history of past detections of a device identifier</p>	<p>See [27]. Perttila discloses that the history of past detections of a device identifier further comprises: inclusion of the second device identifier information, or an identifier</p>

Claim Element	<u>Perttila</u>
<p>further comprises: inclusion of the second device identifier information, or an identifier derived from the second device identifier information, on a list associated with an account associated with the first wireless device.</p>	<p>derived from the second device identifier information, on a list associated with an account associated with the first wireless device (e.g., “user/terminal ID along with [previously received] tag (merchant media) ID[s]”).</p> <p><u>E.g., Perttila:</u></p> <p>See [27].</p> <p>In addition, Perttila discloses that the previously received “tag (merchant-media) ID[s]” include previously received IDs for the same merchant media arrangement relied on in claim 1. <i>E.g.</i>, Perttila, ¶¶[0031], [0034], [0041]-[0043], [0038]. Thus, the past detections of the merchant-media IDs are kept on a list associated with the user’s communications device ID—the account of the user’s communication device—and at minimum it would have been obvious to do so when storing the IDs as disclosed by Perttila. <i>See id.</i></p> <p><i>See also Perttila</i> Fig. 1a, 1b.</p> <p>Williams ¶¶171-172.</p>
<p>[36] The method of claim 1 wherein the further action taken by the central server comprises: providing an electronic coupon to the first wireless device from the central server.</p>	<p>See [1].</p> <p>Perttila discloses the method of claim 1 wherein the further action taken by the central server comprises: providing an electronic coupon to the first wireless device from the central server (e.g., “remote server ... generate[s] and return[s] an appropriate electronic commerce application, such as an electronic coupon” to the “mobile communications device”).</p> <p>See [1.c], [3].</p> <p>Williams ¶¶173-174.</p>
<p>[37] The method of claim 1 wherein the further action taken by the central</p>	<p>See [1].</p> <p>Perttila discloses that the further action taken by the central server comprises: delivering a list of goods to</p>

Claim Element	<u>Perttila</u>
<p>server comprises: delivering a list of goods to the first wireless device as a step in a process for an electronic commerce transaction.</p>	<p>the first wireless device as a step in a process for an electronic commerce transaction (e.g., “remote server ... generate[s] and return[s] an appropriate electronic commerce application, such as an electronic coupon” to the “mobile communications device”; “electronic coupon information including various offerings”).</p> <p><u>E.g., Perttila:</u></p> <p>See [1.c].</p> <p>In addition, Perttila discloses the electronic coupon information provided to the mobile communications device including “various offerings” of goods for selection from the business in which the merchant-media device is “located.”</p> <ul style="list-style-type: none"> • [0039] (“...It should be noted that the second location may also be the same as the first location, for example, in cases where the <i>coupon offerings are provided to mobile users through tag or beacons located at the store itself.</i>”) • [0026] (“The transmitted information allows <i>the mobile communications device to initiate an electronic commerce application</i>, for example by sending a <i>request over cellular network to a remote server for receiving electronic coupon information including various offerings....</i> In another application, the billboard may be promoting a food product, and <i>the request to the remote server corresponds to a request for receiving electronic coupon information including, for example, a restaurant menu</i> or a recipe involving that particular food or food type.”) • [0044]-[0050] (“In some applications, <i>the electronic coupon may be a movie ticket or like....</i> [] In an example application, the user employs a displayed menu to activate the c-coupon offering and thereby initiate the mobile-phone's display to read, “Show

Claim Element	<u>Perttila</u>
	<p>this to the cashier.” <i>The user then presents the e-coupon by way of the mobile-phone's display to the cashier at the ticket counter.</i> Under the text "Show this to the cashier," <i>the mobile-phone's display shows</i> the date when the c-coupon offering was downloaded to the mobile phone and also <i>the following text (for the example e-coupon ticket):</i></p> <p>“Monday to Thursday acts”</p> <p>“two tickets”</p> <p>“only with single price”</p> <p>“effective only after <date of premiere showing>”.</p> <p><i>See also Perttila ¶¶0069.</i></p> <p><i>Williams ¶¶175-177.</i></p>
<p>[42] The method of claim 1 wherein the further action taken by the central server comprises: performing a verification of authenticity or identity of one more of the entities associated with the first wireless device or the second device as part of a step in an electronic commerce transaction.</p>	<p><i>See [1].</i></p> <p>Perttila discloses the further action taken by the central server comprises: performing a verification of authenticity or identity of one more of the entities associated with the first wireless device or the second device as part of a step in an electronic commerce transaction (e.g., “source server 24 performs coupon-verification” “by searching the database for a file with user ID and tag ID” “to ensure that the user has rights to use the coupon offering”).</p> <p><u>E.g. Perttila:</u></p> <p><i>See [1.c].</i></p> <p>In addition, Perttila discloses that, “[i]n connection with the coupon being redeemed” in a transaction, the source server first verifies the user’s identity by searching its database for “a file with [the associated] user ID and tag ID” of the redemption request.</p>

Claim Element	<u>Perttila</u>
	<ul style="list-style-type: none"> • [0039] (“<u>[C]ertain example types of electronic coupons (e.g., product offering with price discounts) may require validation and/or redemption.</u>”) • [0041]-[0043] (“<u>In connection with the coupon being redeemed, first validation occurs.... With such a communication, a void request is transmitted to the source server 24, which marks the coupon as “used”.... [W]here such a coupon is valid for only the user to whom it is issued..., [this] prevents a second use and/or use after an attempt to by unauthorized holder of the coupon.... Upon receiving this request from the redemption data-processing station 54, the source server 24 performs coupon-verification and credit actions and updates its coupon-database accordingly.... [T]he source server 24 receives the void request, and then checks the database 50 to determine whether the coupon is valid. This validity check can be performed by searching the database for a file with user ID and tag ID of the void request. If such a file is found, the source server records a service flag to indicate that the coupon is valid (flag is set to “0”).... In this manner, the coupon is validated and the offering can be redeemed.... a confirmation is typically received before providing the user with the coupon offering to ensure that the user has rights to use the coupon offering.</u>”) <p>See also Perttila ¶¶[0015], [0029], [0031], [0038], [0052]-[0053]. Williams ¶¶178-180.</p>
[43] The method of claim 1 wherein the information delivered to the first wireless device	<p>See [1].</p> <p>Perttila discloses that the information delivered to the first wireless device comprises: a list of goods or services available for selection from an entity associated with the second device identifier</p>

Claim Element	<u>Perttila</u>
<p>comprises: a list of goods or services available for selection from an entity associated with the second device identifier information as part of a step in an electronic commerce transaction.</p>	<p>information as part of a step in an electronic commerce transaction (e.g., see [1.c], [37], “coupon offerings are provided to mobile users through tag or beacons located at the store itself”).</p> <p><i>See</i> [1.c], [37].</p> <p>Williams ¶¶181-182.</p>
<p>[48] The method of claim 1 wherein the further action taken by the central server comprises: notifying the first wireless device of the presence of an entity or object associated with or in proximity to the second device.</p>	<p><i>See</i> [1].</p> <p>Perttila discloses the further action taken by the central server comprises: notifying the first wireless device of the presence of an entity or object associated with or in proximity to the second device (e.g., see [1.c], [2], “coupon offerings are provided to mobile users through ... beacons located at the store itself,” “electronic coupon that corresponds to the content promoted by the billboard”).</p> <p><i>See</i> [1.c], [2].</p> <p>Williams ¶¶183-184.</p>
<p>[49] The method of claim 1 wherein the first wireless device sends the second wireless device identifier to the central server using a wide area cellular technology selected from the group consisting of IS-2000, WCDMA,</p>	<p><i>See</i> [1].</p> <p>Perttila renders obvious the method of claim 1 wherein the first wireless device sends the second wireless device identifier to the central server using a wide area cellular technology (e.g., “mobile network 44”) selected from the group consisting of IS-2000, WCDMA, GPRS, EdGE, LTE, and Wi-Max.</p> <p><u><i>E.g., Perttila:</i></u></p> <p><i>See</i> [1.a].</p> <p>As discussed in §IX.A.1, Perttila discloses the mobile communications device sending the request signal “over</p>

Claim Element	<u>Perttila</u>
GPRS, EdGE, LTE, and Wi-Max.	<p>cellular network to a remote server,” such that it would have been obvious to use one of the known protocols for the cellular network including EdGE and LTE. Williams ¶187</p> <ul style="list-style-type: none"> • [0026] (“The transmitted information allows <i>the mobile communications device to</i> initiate an electronic commerce application, for example by <i>sending a request over cellular network to a remote server....</i>”) <p>Williams ¶¶185-187.</p>
[52] The method of claim 1 wherein the second wireless device is a broadcast only device.	<p><i>See</i> [1].</p> <p>Perttila discloses the second wireless device is a broadcast only device (e.g., “Bluetooth” “beacon”).</p> <p><u><i>E.g., Perttila:</i></u></p> <p><i>See</i> [1.a].</p> <p>In addition, Perttila discloses a “beacon device,” which is broadcast only, “co-located at the merchant-media arrangement” communicating over “a Bluetooth link.”</p> <ul style="list-style-type: none"> • [0037] (“An RFID <i>tag 38 is co-located at the merchant-media arrangement</i> at the first location (e.g., <i>attached to the merchant promotional article 36</i>), and is used to communicate a merchant ID code.... <i>As an alternative to using of the RFID tag 38, the merchant ID code can be communicated through an alternative short-range communication link such as a Bluetooth link...provided through a local short-range...beacon device</i> at said first location.”) <p><i>See also</i> Perttila ¶¶[0030], [0039], [0060].</p> <p>Williams ¶¶191-193.</p>
[55] The method of claim 1 wherein the further action is	<p><i>See</i> [1].</p>

Claim Element	<u>Perttila</u>
based at least in part upon both (a) the second device identifier and (b) the an identifier associated with the first wireless device or an identifier associated with a user of the first wireless device.	<p>Perttila discloses that the further action is based at least in part upon both (a) the second device identifier (e.g., see [1.c]) and (b) the an identifier associated with the first wireless device or an identifier associated with a user of the first wireless device (e.g., “MSISDN and BD ADDR data may also be used to fetch user profile information from the remote server or from another entity in order to provide more personalized offering to the user”).</p> <p><i>See [1.c], [4].</i></p> <p>Williams ¶¶194-195.</p>

B. Ground 3: Claims 27, 31, 53, 54

1. Overview of Insolia and Motivation to Apply Its Teachings to Perttila

Insolia teaches a system for a “loyalty server” to “implement[] a loyalty program” for customers on behalf of a “good or service, brand, company, or other entity.” *E.g.*, *Insolia*, 2:15-23, 6:32-37, 8:44-60. The server provides a benefit to a user when the user’s “personal terminal” comes into proximity with an “interaction terminal...associated with a product or service.” *Id.*, 2:15-23, 8:44-60. The benefit can be in the form of a “loyalty point, a monetary value, a credit toward at least a portion of a product or service.” *Id.*, 9:61-64; Williams ¶102.

Insolia’s interaction terminal is associated with a “promotional object,” such as a poster, and communicates with a personal terminal brought in proximity with

the interaction terminal. *Id.*, 2:32-35, 6:32-37. The personal terminal, in turn, establishes communication with the loyalty server, a “Data Processing Resource,” by way of a “network 3510, such as the internet.” *Id.*, 30:33-37, Fig. 35:

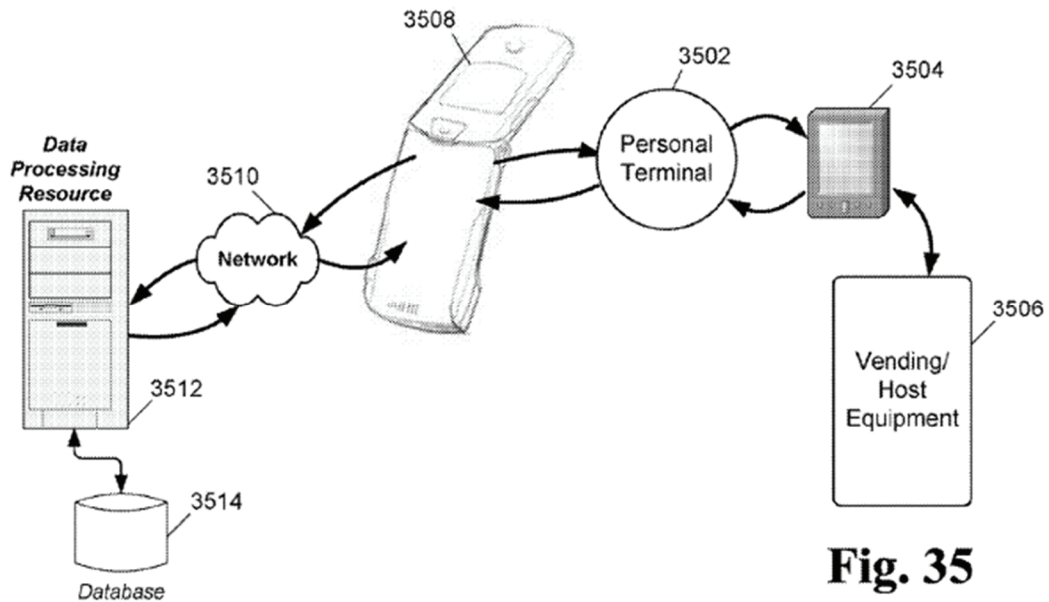


Fig. 35

Williams ¶103.

Insolia’s loyalty server includes “a loyalty management...module 66” to “process the interaction” between the two terminals and “determine the benefit” to be provided to the personal terminal. *Id.*, 8:44-60, 11:8-30. **Insolia** teaches that the server analyzes past purchasing behavior of a user, including “product[s]...purchased...[and] cost of the product” for “trends or other relevant information,” and “provide[s] the user 16 with a benefit as a result of the analysis...” *Id.*, 16:40-58. In addition, **Insolia** teaches “limit[ing] the accrual of loyalty rewards” by basing the benefit “on a pre-defined criteria” such as “frequency” so the user is

“prevented from...repeatedly interacting with the same...promotional object.” *Id.*, 2:44-47, 13:18-34, 36:19-26; Williams ¶104. As such, **Insolia** demonstrates it was well known and obvious to track how frequently a user interacted with the same terminal. Williams ¶104.

A POSITA would have been motivated, and would have found it advantageous, to apply **Insolia**'s teachings of utilizing a user's past behavior in implementing **Perttila**'s e-coupon system. Like **Perttila**, **Insolia** is in the same field and is analogous art to the '359, namely communications with a user's personal terminal for e-commerce purposes. *E.g.*, **Insolia**, Abstract; Williams ¶105. **Insolia** is also pertinent to the alleged problem(s) identified in the '359 of the alleged need for a “third trusted party to help facilitate...electronic transaction[s].” *E.g.*, '359, 2:3-8; **Insolia**, 11:8-30. For example, **Insolia** discloses that a “loyalty server...may be configured to process the interaction” between a user's mobile device and the interaction terminal, “and the processor 60 of the loyalty server 24 may...determine and store the benefit.” *E.g.*, **Insolia**, 11:8-14; Williams ¶¶105-106.

A POSITA would have recognized that **Insolia**'s teachings of utilizing past consumer behavior would have improved **Perttila**'s e-coupon system because this improves consumer confidence in the system and ensures that businesses are maximizing the impact of the offered promotions. *E.g.*, **Insolia**, 1:56-60, 1:66-2:3. Indeed, **Insolia** recognizes the benefits of “consumer confidence” and the need to

offer promotions that “breed consumer loyalty” (*id.*), and **Perttila** likewise recognizes the benefits of offering a “more personalized offering to the user” (Perttila ¶[0031]). A POSITA would have recognized that **Insolia’s** teachings provide known implementation details for these personalized offerings. Williams ¶¶105-106.

In light of the foregoing, a POSITA would have found it obvious and straightforward to apply **Insolia’s** teachings of utilizing past consumer behavior in implementing **Perttila’s** e-coupon system, and would have known that such a combination (yielding the claimed limitations) would predictably work and provide the expected functionality. Williams ¶¶107, 222-223.

2. Claim Chart—Perttila in view of Insolia

Claim Element	<u>Perttila in view of Insolia</u>
[27] The method of claim 1 wherein the further action is additionally based on a history of past detections of device identifier information previously sent to the central server by the first wireless device.	<p><i>See</i> §IX.A.2.[1]; §IX.A.2.[27].</p> <p>To the extent further disclosure is required, Insolia discloses that the further action is additionally based on a history of past detections of devices by the first wireless device (e.g., “the consumer may obtain loyalty rewards from the interaction terminal at a rate that is no faster than the predefined rate”).</p> <p><u>E.g., Insolia:</u></p> <p>To the extent further disclosure of generating e-coupons based on a history of past detections is required beyond Perttila, Insolia discloses limiting the number of e-coupons or rewards sent from a “loyalty server” to the consumer device to a “predefined rate” based on past detections of the “interaction terminal” by the consumer’s</p>

device, which are stored by the server. *E.g.*, Insolia, 11:10-30, 36:19-22. As discussed in §IX.B.1, a POSITA would have been motivated to apply **Insolia’s** teachings of limiting the number of e-coupons a server sends based on the customer’s history of detections of the “interaction terminal” in implementing **Perttila’s** server, which delivers personalized “e-coupons” based on the customer’s profile and the customer’s device’s detection of the merchant-media arrangement (the second wireless device). Williams ¶227.

- **5:47-64** (“Embodiments of a system, such as 10, also known as a loyalty program management system, may include at least one personal terminal, such as 12, and at least one interaction terminal, such as 14. The personal terminal may be associated with a user, such as 16, and the interaction terminal may be associated with a product, such as 18, a piece of equipment, such as 20, or with a promotional object, such as 22. When an interaction occurs between the user 16 and the product 18, equipment 20, or promotional object 22, the personal terminal 12 and the interaction terminal 14 may communicate with each other. In embodiments, for example, the personal terminal 12 and the interaction terminal 14 may communicate via radio-frequency signals.... A benefit may be provided to the user 16, such as a loyalty point that rewards the user 16 for interacting with the product 18 or the equipment 20.”)
- **10:50-63** (“When the interaction terminal 14 is operable to communicate with the equipment 20, the personal terminal 12 may be operable to obtain benefits, redeem benefits, and perform cashless transactions at the equipment 20.... Thus, the user 16 may be able to obtain benefits from a broad range of products 18, equipment 20, and promotional objects 22, and the user 16 may be able to redeem benefits or perform cashless transactions

	<p>at equipment 20 that is integrated with an interaction terminal 14.”)</p> <ul style="list-style-type: none">• 8:44-60 (“The <i>system 10 may also include a loyalty server 24.... The loyalty server 24 also may communicate with</i> the network 42, and one or more of <i>the personal terminal 12 and/or the interaction terminal 14.</i>”)• 2:36-37 (“The loyalty server may include an account associated with the user.”)• 11:10-30 (“<i>The loyalty management engine or module 66 stored in the memory 62 of the loyalty server 24 may be configured to process the interaction, and the processor 60 of the loyalty server 24 may execute the loyalty management engine or module to determine and store the benefit....</i> Alternatively, the personal terminal 12 may be configured to process a portion of the interaction, and the loyalty server 24 may be configured to process a portion of the interaction.... For example, the personal terminal 12 may receive the signal 70 and store information about the transaction in the memory 38. <i>Subsequently, the information may be uploaded to the loyalty server 24, where the loyalty management engine or module 66 may further process and filter the information to determine the benefit.</i>”)• 12:42-44 (“The signal 70 also may indicate an identifier that uniquely identifies the equipment 20, among other information.”)• 36:19-25 (“In block 4106, <i>the loyalty reward is filtered to limit the accrual of loyalty rewards to a predefined rate.</i> Therefore, the consumer may obtain loyalty rewards from the interaction terminal at a rate that is no faster than the predefined rate. Such a predefined rate can be daily, although any rate is possible. Such a configuration <i>reduces</i>
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	<p><i>repeated visits to the same vending or host equipment too frequently.”)</i></p> <p>See also Insolia, 2:15-24, 3:35-38, Fig. 1.</p> <p>Williams ¶¶224-227.</p>
<p>[31] The method of claim 27 wherein the history of past detections of a device identifier further comprises: inclusion of the second device identifier information, or an identifier derived from the second device identifier information, on a list associated with an account associated with the first wireless device.</p>	<p>See §IX.B.2.[27]; §IX.A.2.[31].</p> <p>To the extent further disclosure is required, Insolia discloses inclusion of the second device identifier information, or an identifier derived from the second device identifier information, (e.g., “identifier that uniquely identifies the equipment”) on a list associated with an account associated with the first wireless device (“account associated with the user”).<u>E.g., Insolia:</u></p> <p>To the extent further disclosure of including an identifier for the second wireless device on a list associated with the account for the first wireless device is required beyond Perttila, Insolia discloses that the “loyalty server” stores and processes information about each “transaction,” which includes an “identifier” for the equipment, and uses this information to “determine the benefit,” such as limiting loyalty rewards to a user based on how frequently they visit the same equipment. See §IX.B.2.[27]. As discussed for [27], a POSITA would have been motivated to apply these teachings in implementing Perttila. See <i>id.</i> As discussed in §IX.B.1, a POSITA would have found it obvious to store a user’s record of past transactions with the same equipment using a list of identifiers for that equipment.</p> <p>Williams ¶¶228-229.</p>
<p>[53] The method of claim 1 wherein the further action by the central server to deliver information or a service to the first wireless device is prevented from</p>	<p>See §IX.A.2.[1].</p> <p>Perttila discloses the further action by the central server to deliver information or a service to the first wireless device and a previous reception of the second wireless device identifier by the first wireless device (e.g., see §§IX.A.2.[1.a], [1.c]).</p> <p><u>E.g., Perttila:</u></p>

<p>being taken based at least in part upon a previous reception of the second wireless device identifier by the first wireless device.</p>	<p><i>See</i> §§IX.A.2.[1.c], [5.pre], [27].</p> <p>Insolia discloses the further action is prevented from being taken based at least in part upon a previous reception of the second wireless device identifier by the first wireless device (e.g., “the consumer may obtain loyalty rewards from the interaction terminal at a rate that is no faster than the predefined rate”).</p> <p><u>E.g., Insolia:</u></p> <p><i>See</i> §IX.B.2.[27].</p> <p>Williams ¶¶230-231.</p>
<p>[54] The method of claim 53 wherein the first wireless device sends the second wireless device identifier to the central server using a wide area cellular technology and wherein the second wireless device is a broadcast only device.</p>	<p><i>See</i> §IX.B.2.[53].</p> <p>Perttila discloses that the first wireless device sends the second wireless device identifier to the central server using a wide area cellular technology (e.g., see §IX.A.2.[49]) and wherein the second wireless device is a broadcast only device (e.g., see §IX.A.2.[52]).</p> <p><i>See</i> §§IX.A.2.[49], [52].</p> <p>Williams ¶¶232-233.</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 ¶¶234-235. Indeed, as demonstrated by the prior art referenced herein, any purported problems, solutions or unexpected results in the '359 were already well known. Williams ¶¶234-235. 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.” '359, 2:3-10. 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 ¶¶234-235. 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 '359. Claims 1-5, 14-18, 27, 31, 36-37, 42-43, 48, 52, and 55 are anticipated and all Challenged Claims are rendered obvious for the reasons set forth above. Williams ¶¶236-239. There is a reasonable likelihood that Petitioner will prevail as to each of those claims. *Inter Partes* review of Challenged Claims 1-5, 14-18, 27, 31, 36-37, 42-43, 48-49, and 52-55 is accordingly requested.

Dated: May 15, 2020

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

CERTIFICATE OF COMPLIANCE

Pursuant to 37 CFR §42.24(a) and (d), the undersigned hereby certifies that this Petition for Inter Partes Review complies with the type-volume limitation of 37 CFR §42.24(a)(i) because, exclusive of the exempted portions, it contains 13,940 words as counted by the word processing program used to prepare the paper.

Dated: May 15, 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 '359 patent:

VLP Law Group LLP
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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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