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Paper 11
Entered: April 8, 2014

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE INC.
Petitioner

v.

UNWIRED PLANET, LLC
Patent Owner

Case CBM2014-00006
Patent 7,203,752

Before MICHAEL W. KIM, JENNIFER S. BISK, and GEORGE R. HOSKINS, *Administrative Patent Judges.*

HOSKINS, *Administrative Patent Judge*.

DECISION
Institution of Covered Business Method Patent Review
37 C.F.R. § 42.208

I. INTRODUCTION

Google Inc. ("Petitioner") filed a petition (Paper 1, "Pet.") on October 9, 2013, requesting review of U.S. Patent No. 7,203,752 (Ex. 1001, "the '752 patent") under the transitional program for covered business method patents. Unwired Planet, LLC ("Patent Owner") filed a preliminary response (Paper 8, "Prelim. Resp.") on January 15, 2014. We have jurisdiction under AIA § 18(a)[1] and 37 C.F.R. § 42.300(a) (2013).

The standard for instituting a covered business method patent review is set forth in 35 U.S.C. § 324(a), which provides:

> THRESHOLD.—The Director may not authorize a post-grant review to be instituted unless the Director determines that the information presented in the petition filed under section 321, if such information is not rebutted, would demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.

See AIA § 18(a)(1). Petitioner contends claims 25–29 of the '752 patent are unpatentable under 35 U.S.C. §§ 101, 103, and 112, first paragraph. *See* Pet. 25–27. For the following reasons, and taking into account Patent Owner's preliminary response, we determine the information presented in the petition demonstrates it is more likely than not that claims 25–29 of the '752 patent are unpatentable. Therefore, pursuant to 35 U.S.C. § 324, we authorize a covered business method patent review to be instituted as to claims 25–29 of the '752 patent.

A. The '752 Patent

The '752 patent discloses a method and system for managing wireless communications device location information. *See* Ex. 1001, title. Figure 1 of the '752 patent is reproduced below:

[1] *See* section 18(a) of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 329–31 (2011) ("AIA").

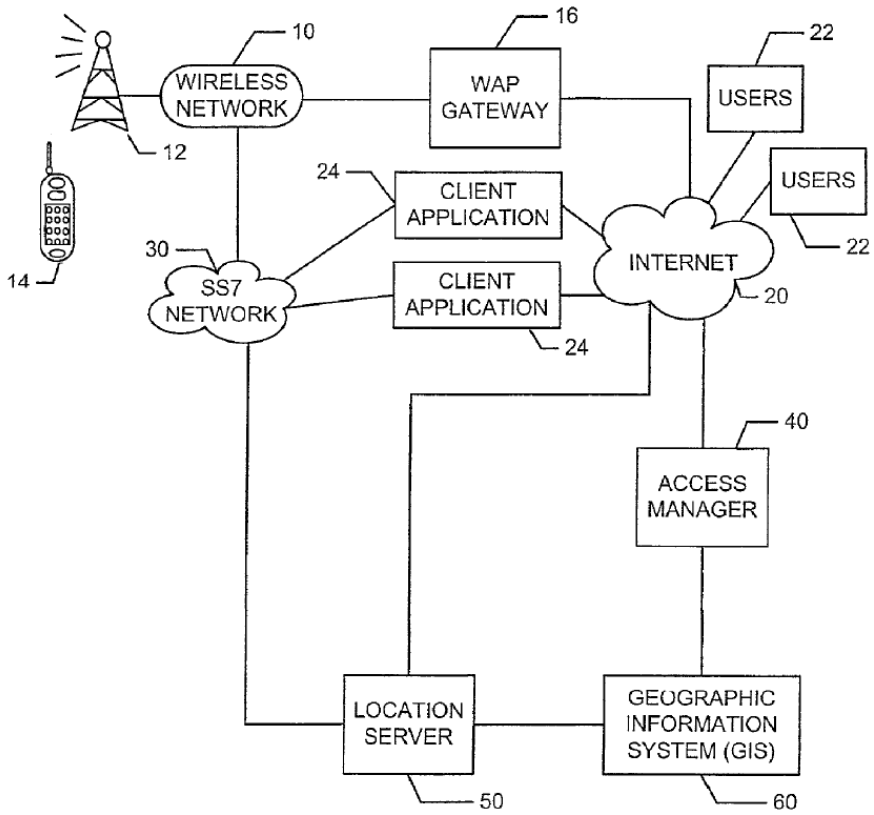


Figure 1 discloses a communications architecture within which an access system operates.

As shown in Figure 1, wireless device 14 communicates over wireless network 10 to access Internet 20. *See id.* at 4:28–50. Location server 50 also is connected to wireless network 10 and Internet 20. *See id.* at 4:51–52. Location server 50 collects and records data reflecting a location of wireless device 14. *See id.* at 4:52–5:4. Client application 24 communicates with access manager 40 to request location information relating to wireless device 14. *See id.* at 5:25–46. Access manager 40 then performs a test to determine if client application 24 is authorized to make the request. *See id.* at 7:31–34; 11:21–26. The test may include accessing a subscriber profile stored in a memory of access manager 40 to analyze whether and to what degree criteria specified in the subscriber profile are met by the request for location information. *See id.* at 7:40–45.

A subscriber profile is illustrated in Figure 3 of the ’752 patent. *See id.* at 8:60–66. Figure 3 is reproduced below:

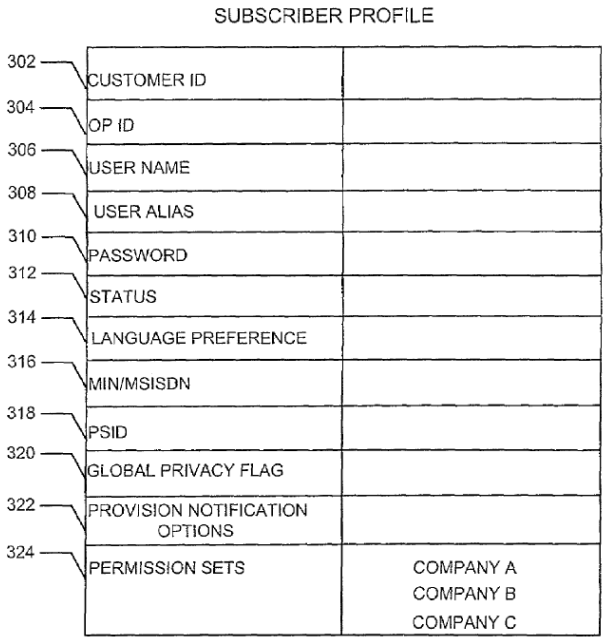


Figure 3 discloses an example profile for a subscriber.

As illustrated in Figure 3, the subscriber profile may include a permission set 324 for each client application 24 authorized to access location information for wireless device 14. *See id.* at 9:36–39. Each permission set 324 “may include a temporal permission set which identifies the time of day / day of week a particular authorized client [24] may access the location information” as well as a “spatial permission set [which] provides a listing of the enabled geographic areas (for example city / county / state), for providing the location information” to client application 24. *Id.* at 9:39–45.

B. Related Matters

Petitioner and Patent Owner have identified one related district court proceeding involving the ’752 patent: *Unwired Planet LLC v. Google Inc.*,

No. 3:12-cv-00504 (D. Nev.). *See* Pet. 79; Paper 7, at 2. Petitioner also has requested *inter partes* review of the '752 patent (IPR2014-00037).

Moreover, U.S. Patent No. 7,024,205 ("the '205 patent") and U.S. Patent No. 7,463,151 ("the '151 patent") are owned by Patent Owner, are involved in the same district court proceeding, and also concern location-based mobile service technology. The '205 patent and the '151 patent are not, however, in the same patent family as the '752 patent. Petitioner has requested Office review of the '205 patent (CBM2014-00005 and IPR2014-00036) and the '151 patent (CBM2014-00004 and IPR2014-00027).

C. Illustrative Claims

Of the challenged claims 25–29, only claim 25 is an independent claim. Claim 26 depends from claim 25, claims 27 and 28 each depend from claim 26, and claim 29 depends from claim 28. Claims 25 and 26 are reproduced here:

> 25. A method of controlling access to location information for wireless communications devices operating in a wireless communications network, the method comprising:
>
> receiving a request from a client application for location information for a wireless device;
>
> retrieving a subscriber profile from a memory, the subscriber profile including a list of authorized client applications and a permission set for each of the authorized client applications, wherein the permission set includes at least one of a spatial limitation on access to the location information or a temporal limitation on access to the location information;
>
> querying the subscribe profile to determine whether the client application is an authorized client application;
>
> querying the subscriber profile to determine whether the permission set for the client application authorizes the client application to receive the location information for the wireless device;
>
> determining that the client application is either not an authorized client application or not authorized to receive the location information; and

denying the client application access to the location information.

26. The method of claim 25 further comprising:

notifying the wireless device that the client application is not authorized to receive the location information; and

updating the subscriber profile to authorize the client application to receive the location information during subsequent requests.

D. Prior Art Relied Upon

Havinis '931	U.S. Patent No. 6,104,931	Aug. 15, 2000	Ex. 1004
Landgren	U.S. Patent No. 6,115,754	Sep. 5, 2000	Ex. 1005
Kingdon	U.S. Patent No. 6,138,003	Oct. 24, 2000	Ex. 1006
Piccionelli	U.S. Patent No. 6,154,172	Nov. 28, 2000	Ex. 1007
Leonhardt[2]		1996	Ex. 1008

E. Alleged Grounds of Unpatentability

Petitioner contends claims 25–29 of the '752 patent are unpatentable based on the following grounds. *See* Pet. 25–27.

Basis	Reference(s)	Claim(s) Challenged
§ 101	None	25–29
§ 112, first paragraph	None	26
§ 103	Havinis '931 and Piccionelli	25–29
§ 103	Havinis '931 and Leonhardt	25–29
§ 103	Landgren and Piccionelli	25–29

[2] Ulf Leonhardt & Jeff Magee, *Towards a General Location Service for Mobile Environments*, Proceedings of the Third Int'l Workshop on Servs. in Distributed & Networked Env'ts 43–50 (1996).

Basis	Reference(s)	Claim(s) Challenged
§ 103	Landgren and Leonhardt	25–29
§ 103	Kingdon and Piccionelli	25–29

II. ANALYSIS

A. Claim Construction

As a step in our analysis, we determine the meaning of the claims for purposes of this decision. In a covered business method patent review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. *See* 37 C.F.R. § 42.300(b) (2013). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). We must be careful not to read a particular embodiment appearing in the written description into the claim if the claim language is broader than the embodiment. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993). We construe the terms below in accordance with these principles.

1. "Spatial Limitation on Access to the Location Information"

Petitioner contends we should construe "spatial limitation on access to the location information" in claim 25 to mean "limitation on access to location information that depends on the mobile device's current location at the time the request for location information is made." Pet. 22–23. Upon our review of the '752 patent specification, however, we conclude the meaning of "spatial limitation" is not so limited. In particular, in addition to the mobile device's

location at the time the request is made, the specification indicates location information may be stored with corresponding time information, and then retrieved from memory at the time of the request. *See* Ex. 1001, 4:56–5:16. We find Patent Owner's proposed construction, "a limitation on access to location information that is spatial in nature" (Prelim. Resp. 18–19), to be unhelpful. We therefore construe "spatial limitation on access to the location information" in claim 25 to mean "limitation on access to location information that depends on the mobile device's location."

2. "Temporal Limitation on Access to the Location Information"

Petitioner and Patent Owner disagree concerning the meaning of "temporal limitation on access to the location information" in claim 25. *See* Pet. 23; Prelim. Resp. 19–20. However, we need not construe this limitation because it does not affect our analysis in this case.

3. "At Least One of"

Petitioner contends we should construe "at least one of" in claim 25 to mean "one or more." Pet. 23–24. Patent Owner does not comment on the meaning of this claim limitation. We decline to adopt Petitioner's proposal, because the meaning of "at least one of" is sufficiently plain without further construction.

4. "Subscriber Profile"

We additionally find it necessary to construe "subscriber profile" in claim 25 because this claim term plays a large role in Patent Owner's preliminary response. The '752 patent specification indicates a "subscriber" is an operator or user of the wireless device identified in claim 25. *See* Ex. 1001, abs.; 1:41–46; 1:63–2:7. Also, the '752 patent specification indicates a "profile" is a set of limitations on the provision of location information corresponding to the wireless device, based upon

subscriber privacy preferences. *See id.* at abs.; 1:14–20; 2:12–20; 6:20–28; 8:60–66. Thus, we construe "subscriber profile" as a set of limitations on the provision of location information corresponding to the wireless device, based upon the privacy preferences of the wireless device user.

B. Covered Business Method Patent Review

AIA § 18(a) provides for post-grant review of covered business method patents. A "covered business method patent" is one that "claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions." AIA § 18(d); *see also* 37 C.F.R. § 42.301 (2013). For the following reasons, we conclude the '752 patent is eligible for covered business method patent review.

1. Financial Product or Service

The parties disagree regarding whether the '752 patent meets the financial product or service requirement. For purposes of determining whether a patent is eligible for covered business method patent review, we focus on the claims. *See* Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention, 77 Fed. Reg. 48,734, 48,736 (Aug. 14, 2012) (responses to comments 4 and 8). A patent need have only one claim directed to a covered business method to be eligible for covered business method patent review. *See id.* In this case, the parties focus their arguments on claim 25 of the '752 patent.

In promulgating rules for covered business method reviews, the Office considered the legislative intent and history behind the AIA's definition of a covered business method patent. *See id.* at 48,735–36 (responses to comments 1–

7). The "legislative history explains that the definition of covered business method patent was drafted to encompass patents 'claiming activities that are financial in nature, incidental to a financial activity or complementary to a financial activity.'" *Id*. at 48,735 (response to comment 1, citing 157 CONG. REC. S5432 (daily ed. Sept. 8, 2011) (statement of Sen. Schumer)). The legislative history also indicates "financial product or service" should be interpreted broadly. *Id*. Thus, the term is not limited to products or services of the financial services industry. *See* 77 Fed. Reg. 48,734, 48,735–36 (responses to comments 2–3); *see also LinkedIn Corp. v. AvMarkets Inc.*, CBM2013-00025, Paper 13 (Institution of CBM Patent Review) 9–10 (PTAB Nov. 12, 2013).

Claim 25 of the '752 patent recites a method of controlling access to location information for wireless communications devices, wherein a "client application" requests such location information. Ex. 1001, 16:18–22. Petitioner, relying on the '752 patent disclosure at column 11, lines 12–13, contends the '752 patent specification discloses such client applications may be "used in business applications incidental or complimentary to financial products or services." Pet. 8. The cited disclosure provides:

> Other *client applications* may be service or goods providers *whose business is geographically oriented*. For example, if a wireless communications device is in the area of a particular hotel, restaurant, and/or store, the business may want to know that, so relevant advertising may be transmitted to the wireless communications device.

Ex. 1001, 11:12–17 (emphases added). Petitioner points to the first sentence of this disclosure, and contends the '752 patent is a covered business method patent because "banks and other financial service companies" are "geographically oriented" businesses. Pet. 8. Patent Owner responds that if we were to accept

Petitioner's contention in this regard, then "any patent even remotely related to an application that might be utilized in a financial nature would be eligible for CBM review." Prelim. Resp. 13–14. We conclude neither party has presented a relevant analysis because, as we indicated above, the "financial product or service" requirement for covered business method patent review is not limited to products or services of the financial services industry. *See* 77 Fed. Reg. 48,734, 48,735–36 (responses to comments 2–3).

The proper inquiry, instead, is whether the patent claims activities that are financial in nature, incidental to a financial activity, or complementary to a financial activity.[3] We, therefore, consider Petitioner's citations to the '752 patent's disclosure relating to the "client application" of claim 25 in light of this standard. The '752 patent disclosure indicates the "client application" may be associated with a service provider or a goods provider, such as a hotel, restaurant, or store, that wants to know a wireless device is in its area so relevant advertising may be transmitted to the wireless device. *See* Ex. 1001, 11:12–17. Thus, the subject matter recited in claim 25 of the '752 patent is incidental or complementary to the financial activity of service or product sales. Therefore, claim 25 is directed to a method for performing data processing or other operations used in the practice, administration, or management of a financial product or service.

2. Exclusion for Technological Inventions

The definition of "covered business method patent" expressly excludes "patents for technological inventions." AIA § 18(d)(1); *see also* 37 C.F.R.

[3] *See, e.g.*, *Salesforce.com, Inc. v. VirtualAgility, Inc.*, CBM2013-00024, Paper 16 (Institution of CBM Patent Review) 10–11 (PTAB Nov. 19, 2013); *LinkedIn Corp. v. AvMarkets Inc.*, CBM2013-00025, Paper 13 (Institution of CBM Patent Review) 9–10 (PTAB Nov. 12, 2013); *Apple Inc. v. Sightsound Techs., LLC*, CBM2013-00023, Paper 12 (Institution of CBM Patent Review) 12–13 (PTAB Oct. 8, 2013).

§ 42.301(a) (2013). To determine whether a patent is for a technological invention, we consider on a case-by-case basis "whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution." 37 C.F.R. § 42.301(b) (2013). The parties disagree regarding whether claim 25 meets the technological invention exclusion.

We are persuaded by Petitioner's argument that claim 25 is not a "technological invention" excluded from covered business method patent review. In particular, the Office has indicated the following claim drafting techniques "would not typically render a patent a technological invention":

> (a) Mere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer-readable storage medium, scanners, display devices or databases, or specialized machines, such as an ATM or point of sale device.
>
> (b) Reciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and non-obvious.
>
> (c) Combining prior art structures to achieve the normal, expected, or predictable result of that combination.

Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,763–64 (Aug. 14, 2012). On the record presently before us, we determine the hardware components of claim 25 (i.e., wireless communication devices, a wireless communication network, a client application, and a memory) were known prior art technologies before the filing of the '752 patent in 2001. *See, e.g.*, Ex. 1004; Ex. 1005; Ex. 1006. The data manipulations recited in claim 25 are, thus, a process or method that is not "typically" a technological invention, even if the process or method is novel and non-obvious, under example (b) of the Office Patent Trial

Practice Guide. Patent Owner's arguments do not persuade us that the present case is an atypical case in this regard.

In conclusion, based on the present record, claim 25 of the '752 patent does not recite a "technological invention" excluded from covered business method patent review.

C. Non-Statutory Subject Matter

Petitioner contends claims 25–29 of the '752 patent fail to recite patentable subject matter under 35 U.S.C. § 101, because they fall under the judicially created exception encompassing "abstract ideas." *See* Pet. 27–43. Specifically, Petitioner contends a person could perform every step of claim 25 without using a computer, by using a pen and paper or even the person's own mind, which impermissibly enters the realm of unpatentable abstract ideas and mental processes. *See* Pet. 30–34. On this record, we agree.

Patent Owner contends that recitations directed to a wireless device, a client application, a memory, and a wireless communication network, in claims 25–29, are adequate references to "material objects" to render claims 25–29 sufficiently "concrete," as opposed to "abstract," under the rubric set forth in *Ultramercial v. Hulu*, 722 F.3d 1335, 1343 (Fed. Cir. 2013). *See* Prelim. Resp. 20–28. For purposes of this decision, we disagree. As an example, while independent claim 25 does recite "receiving a request from a *client application* for location information for a *wireless device*" (emphases added), the "receiving" step is written such that the receipt of the request from the client application does not exclude receiving the request in the mind of a user. Such breadth in claim wording to encompass mental processes indicates that the recitation of "wireless device" and "client application" are ancillary to the abstract idea set forth in the "receiving" step, and thus insufficient to confer subject matter eligibility. The same analysis is

applicable to the other steps of independent claim 25. For similar reasons, the recitation of "wireless communications" in the preamble is not determinative. Accordingly, due to the breadth of the claim language, claims 25–29 cover mental processes, and contrary to Patent Owner's assertions, we are hard pressed to envision a scenario where covering mental processes is not effectively a preemption of all practical applications and implementations of an abstract idea.

Therefore, we conclude Petitioner has demonstrated it is more likely than not that claims 25–29 of the '752 patent are unpatentable under § 101.

D. Lack of Written Description Support for Claim 26

Petitioner contends claim 26 of the '752 patent is unpatentable under 35 U.S.C. § 112, first paragraph, because the specification does not contain a written description of the subject matter recited in that claim. *See* Pet. 43–46. On the record before us, we are persuaded by this contention.

1. Notifying Wireless Device of Lack of Authorization

Petitioner first contends the '752 patent specification fails to describe "notifying the wireless device that the client application is not authorized to receive the location information" ("the 'notifying' step"), as recited in claim 26. *See* Pet. 43–45. Petitioner acknowledges the '752 patent describes notifying the *client application* when a request for location information is denied, but contends there is no description of notifying the *wireless device*. *See id.*

Patent Owner contends, and we agree, that the '752 patent specification repeatedly discloses notifying the wireless device. *See* Prelim. Resp. 29–30 (citing Ex. 1001, 2:64–65; 9:26–35; 9:49–51; 10:31–45; 12:44–45; 13:7–13). Each of those references, however, discloses notifying the wireless device *when a request for location information is made*, and not when it is denied, as recited in claim 26.

Patent Owner nonetheless contends: "It naturally follows, that these notifications would include information regarding whether the request was authorized or denied authorization." *Id.* at 30. That contention, however, does not address the standard for compliance with the written description requirement of 35 U.S.C. § 112, first paragraph. That standard is whether the patent specification reasonably conveys to those skilled in the art that the inventor(s) had possession of the claimed subject matter as of the filing date. *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The disclosure in the '752 patent specification of notifying a wireless device when a request for location information is made does not necessarily convey that the inventors of the '752 patent had possession of notifying the wireless device that a client application is *not* authorized to receive the location information.

Patent Owner also contends the '752 patent specification discloses a logging function whereby denying a client application authorization is recorded in memory, and further discloses that such logs may be provided to the wireless device. *See* Prelim. Resp. 30–31 (citing Ex. 1001, figs. 5, 6A, 6B; 11:53–55; 13:13–16). We agree with Patent Owner that the cited portions of the '752 patent specification disclose logging at least some instances when a request for location information is denied. *See* Ex. 1001, 11:53–55. However, we do not agree that the cited portions of the '752 patent specification disclose such logs may be provided to the wireless device. In particular, while the final step of Figure 6B indicates a log is sent "to all parties who wish to receive" the log, that step is executed only *after* location information is transmitted to the client application. *See* Ex. 1001, fig. 6B; 13:13–17. In that situation, access to location information was granted, not denied, so the log would not reflect a lack of authorization, as required by claim 26. We are not persuaded that one of ordinary skill in the art would understand that the sending of

a log as disclosed in Figure 6B would include the denial information disclosed at column 11, lines 53–55.

Patent Owner finally relies on the disclosure of U.S. Provisional Patent Application 60/269,506, which the '752 patent incorporates by reference. *See* Prelim. Resp. 31 (citing Ex. 1020, at 22; 42). The cited portions of the provisional application pertinently indicate only that a location gateway may initiate a dialogue with the subscriber "regarding permission for a location request" (Ex. 1020, at 22), and SMS messaging may be used for "notification of request for permissions" and "notification of event/trigger (e.g. proximity or calendar event)" (Ex. 1020, at 42). Patent Owner's reliance is inapposite, however, as none of these cited portions disclose a denial of authorization as recited in claim 26.

For all the foregoing reasons, we conclude it is more likely than not that notification of the wireless device as recited in claim 26 of the '752 patent is not described in the '752 patent specification as required by 35 U.S.C. § 112, first paragraph.

2. Combination of Steps

Petitioner also contends the '752 patent specification fails to describe the two steps of claim 26 in combination. *See* Pet. 45. As just discussed above, Petitioner has presented information that demonstrates it is more likely than not that the "notifying" step of claim 26 is not described in the '752 patent specification. It necessarily follows that it is more likely than not that the '752 patent specification fails to describe the two steps of claim 26, the "notifying" step and the "updating" step, in combination.

Nonetheless, we further address Patent Owner's contention that claim 26 does not require the "notifying" step to be performed prior to the "updating" step. *See* Prelim. Resp. 28–29; 32–33. According to Patent Owner, the '752 patent

specification need only describe the two steps of claim 26 in isolation from each other to satisfy 35 U.S.C. § 112, first paragraph. *See id.*

We disagree with Patent Owner's construction of claim 26, because the "updating" step in claim 26 authorizes the client application to receive the location information "during subsequent requests." *See* Ex. 1001, 16:41–46. The term "subsequent" indicates the "updating" step follows the "notifying" step in time. That is, the "updating" step authorizes the client application to receive location information "subsequent" to the notification recited in the "notifying" step of claim 26. Patent Owner's citations to the '752 patent's disclosure relating to the "updating" step do not disclose such a temporal requirement relative to the "notifying" step, as required by claim 26. *See* Prelim. Resp. 32–33 (citing Ex. 1001, 2:42–45; 6:20–32).

For all the foregoing reasons, we determine it is more likely than not that the '752 patent specification does not describe the two-step combination recited in claim 26 as required by 35 U.S.C. § 112, first paragraph.

E. Obviousness Over Havinis '931 and Leonhardt

Petitioner contends claims 25–29 of the '752 patent are unpatentable under 35 U.S.C. § 103 as obvious over Havinis '931 and Leonhardt. *See* Pet. 56–61. On the record before us, we are persuaded by this contention as to claim 25, but not claims 26–29.

1. Havinis '931

Havinis '931 discloses a system and method for defining location services. *See* Ex. 1004, title; abs. Figure 3 of Havinis '931 is reproduced here:

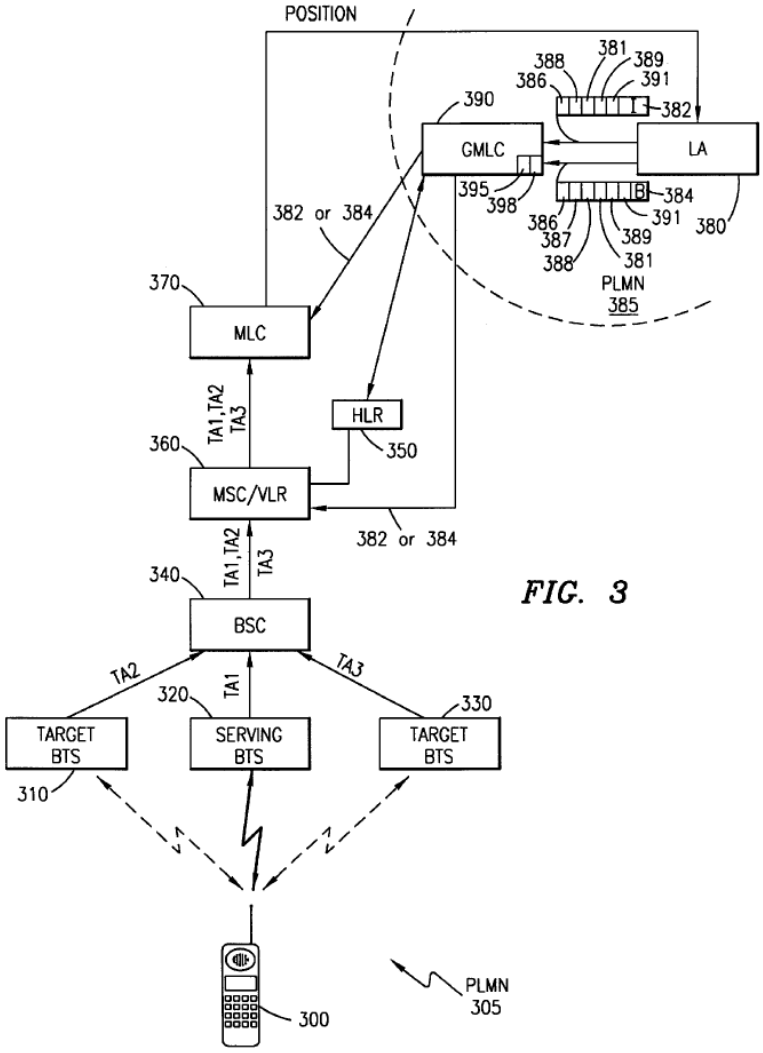


FIG. 3

Figure 3 discloses positioning of mobile terminal 300 by location application 380.

As illustrated in Figure 3, location application 380 may be permitted to determine a location of mobile terminal 300 operating in Public Land Mobile Network ("PLMN") 305. *See id.* at 4:35–55; 1:34–35.

Location application 380 must register first with Gateway Mobile Location Center ("GMLC") 390 to define "its location services profile" 398, which is stored within a database of GMLC 390. *Id.* at 4:35–41. Location services profile 398 specifies "all of the relevant service parameters specific to" location application 380. *Id.* at 4:41–43. Profile 398 defines groups of mobile terminal subscribers

which that location application 380 may locate by the Mobile Station International Subscriber Directory Number ("MSISDN") of each mobile terminal in the group. *See id.* at 4:50–55. GMLC 390 assigns a Location Application Identifier Number ("LAIN") 386 identifying location application 380 and its location services profile 398. *See id.* at 4:56–60.

When location application 380 sends interactive positioning request 382 to GMLC 390, request 382 includes LAIN 386 and identifies mobile terminal(s) to be positioned by MSISDN(s) or by group ID. *See id.* at 4:60–66; 5:5–15. GMLC 390 then cross-references the MSISDN(s) or group ID with LAIN 386 to verify location application 380 has the authority to position the mobile terminal(s) identified in request 382. *See id.* at 5:5–15. If no authority is found, GMLC 390 rejects request 382 and sends a rejection message to location application 380. *See id.* at fig. 5; 7:28–33.

GMLC 390 also verifies the mobile terminal(s) to be positioned allow positioning to be performed. *See id.* at 7:46–53. That is, GMLC 390 checks the "positioning subscription information, e.g., privacy indication" of each mobile terminal, as maintained by components of PLMN 305. *See id.* If a mobile terminal does not allow positioning, request 382 is rejected and a rejection message is sent to location application 380. *See id.* at 7:66–8:2.

2. Leonhardt

Leonhardt describes "how to meet the need for location-dependent information by introducing a general-purpose location service for mobile environments." Ex. 1008, at 43, col. 1. Leonhardt discloses "location domains as a powerful framework for presenting and protecting location information," and "investigates mechanisms to exactly specify and supervise the level of access to

location data that is wanted." *Id.* at 43, abs.; 43, col. 2. Such security issues are discussed in Section 5 of Leonhardt. *See id.* at 43, col. 2.

Figures 2 and 3 of Leonhardt are reproduced here:

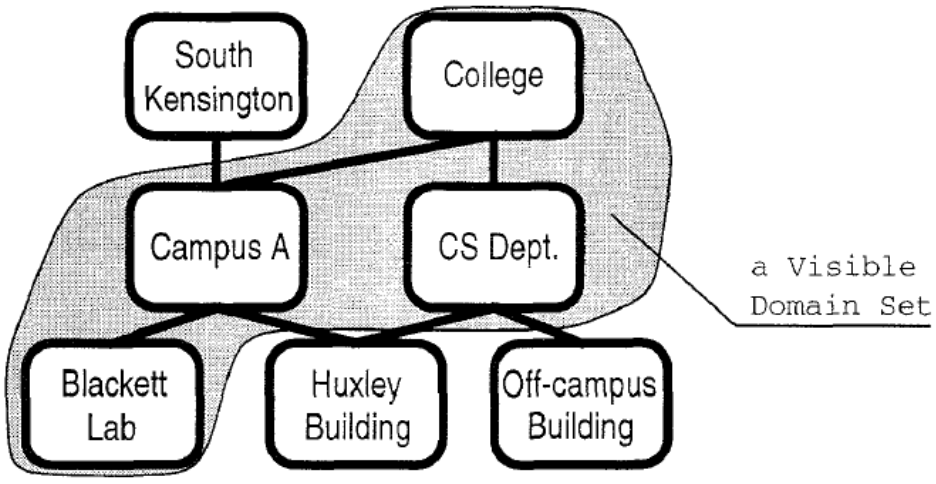
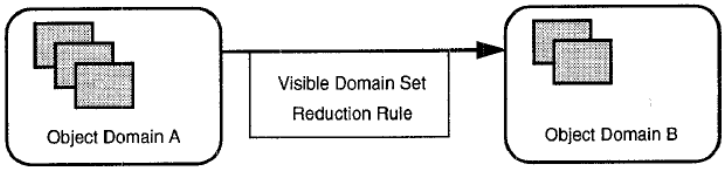


Figure 2. A location domain hierarchy, shown with a shaded *visible domain set* for access control

Figure 2 discloses a location domain hierarchy.

Location Access Control Rule:



Example:

Source Domain	Visible Domain Set	Reduction Rule	Target Domain
<STUDENTS>	{Blackett Lab, Campus A, College, CS Department}	{Huxley, Off-C.} ->College * ->Nowhere	<STAFF>

Figure 3. Location access control rules express authorisation policies

Figure 3 discloses location access control rules express authorization policies.

Leonhardt discloses "visible domain sets (VDS) in access rules to specify authorisation to 'see' a located-object in certain domains," including reduction rules to prevent disclosure of a location outside a VDS. *Id.* at 47, cols. 1–2. In this

way, location access policies may be applied to a pair of querying and target objects, where those objects typically are defined using domains. *See id.* at 47, col. 2. "[C]onstraints on the time of the query, the location, and the policy set of the querying objects may be used to modify the scope of the policy." *Id.* In one example illustrated in Figure 3, a source domain may be "students" and a target domain may be "staff." Then students' level of access to location information for a particular staff member may depend on a location of the staff member. *See id.* at 47, col. 2.

3. Independent Claim 25

Petitioner argues Havinis '931 discloses the preamble of claim 25, which recites "[a] method of controlling access to location information for wireless communications devices operating in a wireless communications network." Patent Owner contends Petitioner does not establish Havinis '931 discloses such a method. *See* Prelim Resp. 35. We, however, agree with Petitioner, because Havinis '931 discloses that the GMLC receives an interactive positioning request from a location application for location information for a mobile terminal, and provides such information only if authorized by the LAIN and permitted by the mobile terminal's privacy indication.

The method of claim 25 further includes "retrieving a subscriber profile from a memory, the subscriber profile including a list of authorized client applications and a permission set for each of the authorized client applications." Petitioner contends the register of location services profiles maintained by the GMLC database of Havinis '931 constitutes the claimed subscriber profile. *See* Pet. 49. Patent Owner contends the location services profiles of Havinis '931 do not constitute a "subscriber profile." *See* Prelim. Resp. 35–36; 38–39. Specifically, Patent Owner asserts the location services profiles of Havinis '931

"relate[] to a particular *location application*, rather than being related to a *subscriber (or wireless device)*." *Id.* at 36 (emphases added). Patent Owner also asserts the location services profiles of Havinis '931 do not include a list of authorized client applications and a permission set for each authorized client application.

We are persuaded by Petitioner's contention that the location services profiles maintained by the GMLC database of Havinis '931 constitute a subscriber profile. In particular, Havinis '931 indicates the profile of a given location application defines the mobile terminal(s) that the location application is authorized to locate. Thus, we are not persuaded by Patent Owner's contention that the location services profiles in Havinis '931 do not relate to particular subscribers or wireless devices. While the record before us suggests the location services profiles are defined and controlled by location applications and not by individual mobile terminal subscribers, that does not distinguish the location services profiles from the "subscriber profile" recited in claim 25. Those profiles still include limitations on the provision of location information corresponding to wireless devices, based upon the privacy preferences of the wireless device user (i.e., the mobile terminal user must provide the mobile terminal's MSISDN to the location application to be included in the location services profile).

We also are persuaded by Petitioner's contention that the subscriber profile of Havinis '931 includes a list of authorized client applications and a permission set for each such application. The GMLC database of Havinis '931 maintains a list of location applications having LAINs, which correspond to the claimed authorized client applications. Moreover, each LAIN identifies a location services profile including all relevant service parameters, which corresponds to the claimed

permission set. Thus, we are not persuaded by Patent Owner's contention that Havinis '931 fails to disclose these claimed features.

Claim 25 further requires that the subscriber profile "permission set includes at least one of a spatial limitation on access to the location information or a temporal limitation on access to the location information." Petitioner contends Leonhardt discloses the "spatial limitation" component of that requirement. *See* Pet. 57–59. On this record, we agree with Petitioner, because Leonhardt discloses requests for location information from querying objects may be constrained depending on the location of the target objects to be located.

Patent Owner disputes Petitioner's reliance on Leonhardt. *See* Prelim. Resp. 39–41. Patent Owner faults Petitioner for failing to identify how Leonhardt discloses a requesting client application, a subscriber profile, a list of authorized client applications, or a permission set. *See id*. We do not find these contentions persuasive, however, because Patent Owner's contentions are inapposite. Havinis '931, and not Leonhardt, is cited for disclosing the requesting client application, the subscriber profile, the list of authorized client applications, and the permission set as recited in claim 25. The record presently before us indicates the only portion of the "retrieving" limitation in claim 25 that is missing from Havinis '931 is "a spatial limitation on access to the location information," and Leonhardt discloses such a feature.

As to the remaining limitation of claim 25, Petitioner contends, and Patent Owner does not dispute in its preliminary response, that it is more likely than not that Havinis '931 discloses them. We are persuaded by Petitioner's contentions in this regard, based on the present record.

Regarding the ultimate conclusion of obviousness, Petitioner has submitted the Declaration of Dr. Donald Cox stating:

> I believe that claims 25-29 of the '752 patent are obvious over Havinis '931 in view of Leonhardt. I believe that a POSA would have found it obvious to modify the system of Havinis '931 to include Leonhardt's location access policies, in order to further Havinis '931's goals of managing positioning requests sent by Location Applications such that location services can be tailored individually to meet the needs of the mobile device user. (See [Ex.] 1004, 3:33-40.) Doing so would have been nothing more than the application of a known method of privacy management to achieve a predictable result.

Ex. 1002 ¶ 76; *see also* Pet. 59. Patent Owner describes Dr. Cox's analysis as presenting a "flawed motivation" that "overstates the focus of Havinis '931, which is solely focused on how location applications gain access to location information." Prelim. Resp. 41–42.

However, "the [§ 103] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Also, "any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* at 420. Under those standards, even if the cited portions of Havinis '931 do not support directly Petitioner's proposition, we are persuaded the

rationale set forth in the Cox Declaration is sufficient to establish a prima case of obviousness.

Accordingly, we conclude Petitioner has demonstrated it is more likely than not that claim 25 of the '752 patent is unpatentable as obvious over Havinis '931 and Leonhardt.

4. Dependent Claims 26–29

Claim 26 depends from claim 25, and recites "notifying the wireless device that the client application is not authorized to receive the location information." Ex. 1001, 16:41–46. Petitioner contends that this limitation is met by the disclosure in Havinis '931 that if a location request of a location application is denied, then a rejection message is sent to the *location application*. *See* Pet. 60 (citing Ex. 1004, 7:47–8:1). This disclosure, however, does not correspond to notifying the *wireless device* as required by claim 26. Indeed, according to Petitioner, claim 26 is unpatentable under 35 U.S.C. § 112, first paragraph, because the '752 patent specification discloses notifying only the client application that the location information was denied, not the wireless device. *See* Pet. 44–45.

Petitioner does not rely on Leonhardt in regard to the "notifying" step of claim 26, and does not contend this step would have been obvious even if not explicitly disclosed. *See* Pet. 60. Claims 27–29 each ultimately depend from claim 26. Therefore, the petition does not demonstrate it is more likely than not that claims 26–29 are unpatentable as obvious over Havinis '931 and Leonhardt.

F. Obviousness Over Landgren and Leonhardt

Petitioner contends claims 25–29 of the '752 patent are unpatentable under 35 U.S.C. § 103 as obvious over Landgren and Leonhardt. *See* Pet. 69–72. On the

record before us, we are persuaded by this contention as to claim 25, but not claims 26–29.

1. Landgren

Landgren discloses a system and method for appending location information concerning a mobile unit onto communications of the mobile unit with the Internet. *See* Ex. 1005, abs. Figure 1A of Landgren is reproduced here:

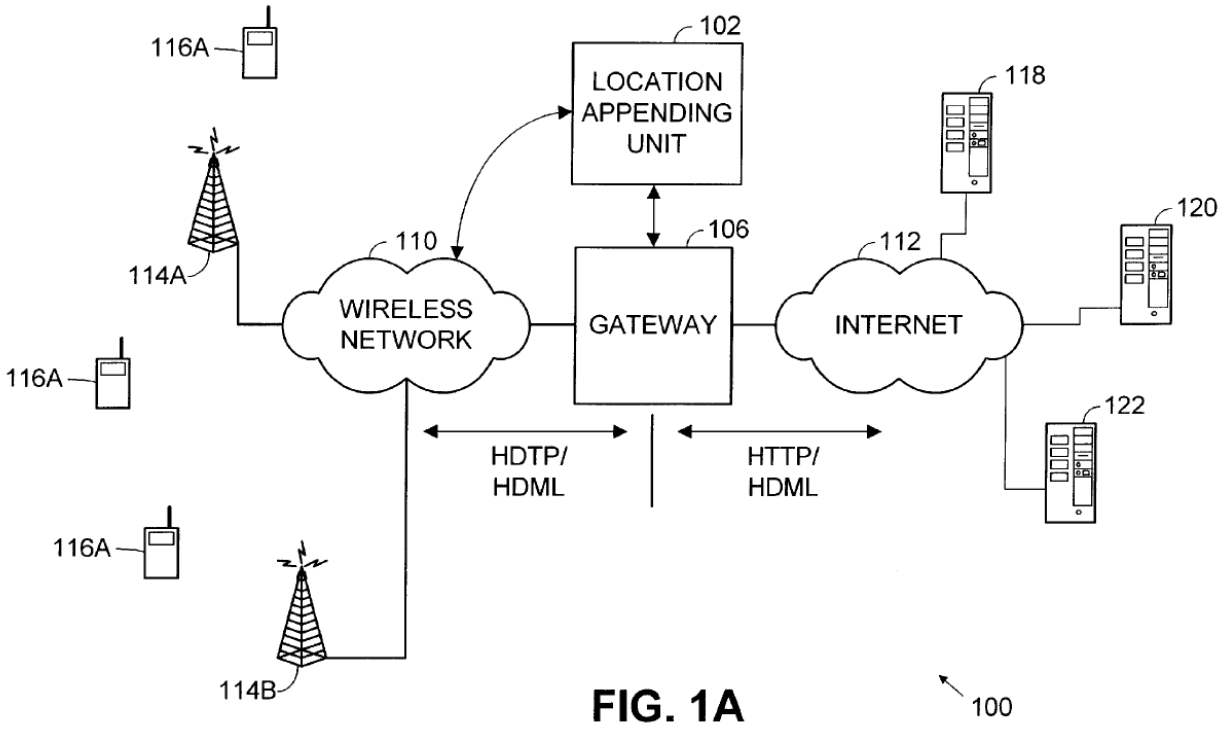


Figure 1A discloses an installation of location appending unit 102.

As illustrated in Figure 1A, location appending unit 102 is coupled to gateway 106 between wireless network 110 and Internet 112. *See id.* at 4:49–53. Gateway 106 permits communication between mobile units 116A and Internet web servers, such as server 118. *See id.* at 4:60–67. Location appending unit 102 monitors communications passing through gateway 106 and when such communications require location information corresponding to mobile unit 116A, unit 102

determines the location information and appends it to the communications. *See id.* at 5:28–41.

Before location appending unit 102 appends the location information, however, it accesses a subscriber profile of the mobile unit 116A. *See id.* at fig. 3; 8:56–59. If the subscriber profile allows location information to be appended, then it is appended. *See id.* at fig. 3; 8:59–62. If the subscriber profile does not allow location information to be appended, then it is not appended. *See id.* at fig. 3; 8:62–65.

2. Independent Claim 25

Petitioner contends Landgren discloses each and every limitation of claim 25, including a "subscriber profile," except that the subscriber profile of Landgren does not include "a list of authorized client applications and a permission set for each of the authorized client applications, wherein the permission set includes at least one of a spatial limitation on access to the location information or a temporal limitation on access to the location information." *See* Pet. 61–66; 69–70. We are persuaded by this contention, for the following reasons.

We first address Patent Owner's objection to Petitioner's analysis of Landgren. The method of claim 25 includes "receiving a request from a client application for location information for a wireless device." Petitioner contends this limitation is met in Landgren when an application residing on a web server registers with the location appendage unit. *See* Pet. 62 (citing Ex. 1005, 8:21–26; abs.). Patent Owner contends Landgren does not disclose this limitation, because "the request for information is generated by the mobile unit" and not the application on the web server. Prelim. Resp. 43–44; 45; 47–48. We agree with Petitioner, as Landgren discloses the web server application registers with the location appending unit, thereby "requesting" that unit to append mobile unit

location information to communications from mobile units to the web server application. Ex. 1001, 5:52–65; 8:21–42.

Turning to Leonhardt, Petitioner relies on Leonhardt as disclosing the subscriber profile requirements not disclosed by Landgren. *See* Pet. 63 (stating only that Landgren includes a "subscriber profile"); 69–70 (discussing Leonhardt). According to Petitioner, the location access policies of Leonhardt correspond to the claimed subscriber profile. *See id.* at 57 (citing Ex. 1002 (Cox Decl.) ¶ 69). Petitioner contends the reduction rules of Leonhardt correspond to the claimed permission set, and the reduction rules include spatial limitations on access to location information. *See id.* at 59 (citing Ex. 1002 (Cox Decl.) ¶¶ 68–69). Patent Owner, by contrast, contends Leonhardt does not disclose a subscriber profile, does not disclose a list of authorized client applications, and does not disclose a permission set for each authorized client application. *See* Prelim. Resp. 39–41; 47–48.

We are persuaded by Petitioner's contentions that Leonhardt discloses the "subscriber profile" requirements of claim 25. The location access policies of Leonhardt constitute a subscriber profile, in that they identify subscribers or target objects (e.g., staff members) that may be located by querying objects (e.g., students). As to the recited authorized client applications, the querying objects (students) operate through applications to request location data, and given that such location data may be provided, the applications used by the querying objects (students) are authorized. Even one such authorized application is enough to satisfy claim 25's "list," despite Patent Owner's suggestion that claim 25 requires multiple authorized applications. *See* Prelim. Resp. 40. Finally, the reduction rules of Leonhardt correspond to the recited "permission set includ[ing] . . . spatial limitations on access to location information," in that they constrain requests for

location information from querying objects (students) depending on the location of the target objects (staff members) to be located.

Next regarding the ultimate conclusion of obviousness, Petitioner has submitted the Cox Declaration, stating:

> I believe that claims 25-29 of the '752 patent are obvious over Landgren in view of Leonhardt. I believe that a POSA would have found it obvious to modify the system of Landgren to include Leonhardt's location access policies and reduction rules, in order to further Landgren's goals of managing positioning requests sent by applications such that location services can be tailored individually to meet the needs of the mobile device user. Doing so would have been nothing more than the application of a known method of privacy management to achieve a predictable result.

Ex. 1002 ¶ 78; *see also* Pet. 70. We conclude, on this record, the Cox Declaration thereby provides a sufficient rationale to combine the two references. *See KSR Int'l*, 550 U.S. at 418, 420. Patent Owner contends the combination of Landgren and Leonhardt would not result in the claimed invention, because neither reference discloses the subject matter for which it is cited by Petitioner. *See* Prelim. Resp. 48–49. For the reasons provided above, however, we are persuaded Landgren and Leonhardt disclose the subject matter for which they are cited by Petitioner.

Accordingly, we conclude Petitioner has demonstrated it is more likely than not that claim 25 of the '752 patent is unpatentable as obvious over Landgren and Leonhardt.

3. Dependent Claims 26–29

Claim 26 depends from claim 25, and recites "notifying the wireless device that the client application is not authorized to receive the location information." Ex. 1001, 16:41–46. Petitioner contends that limitation is met by the disclosure in

Landgren at column 8, lines 21–42. *See* Pet. 71. We do not see anything in the cited disclosure that corresponds to notifying the wireless device that the client application is not authorized to receive the location information.

Petitioner does not rely on Leonhardt in regard to the "notifying" step of claim 26, and does not contend this step would have been obvious even if not explicitly disclosed. *See id.* Claims 27–29 each ultimately depend from claim 26. Therefore, we conclude the petition does not demonstrate it is more likely than not that claims 26–29 are unpatentable as obvious over Landgren and Leonhardt.

G. Obviousness Over Havinis '931 and Piccionelli, or Landgren and Piccionelli

Petitioner contends claims 25–29 of the '752 patent are unpatentable under 35 U.S.C. § 103 as obvious over Havinis '931 and Piccionelli (*see* Pet. 46–56), and as obvious over Landgren and Piccionelli (*see* Pet. 61–69). In both cases, Petitioner relies on Piccionelli as disclosing the requirement in claim 25 for the subscriber profile to include "at least one of a spatial limitation on access to the location information or a temporal limitation on access to the location information." *See* Pet. 49–51; 63. In particular, Petitioner views Piccionelli as having a subscriber profile with a spatial limitation on access to location information. *See id.* On the record before us, we are not persuaded by these contentions.

1. Piccionelli

Piccionelli discloses a system and process for limiting distribution of information to potential recipient processors, based on a geographic location of potential recipient processors. *See* Ex. 1007, title; abs. Figure 1 of Piccionelli is reproduced below:

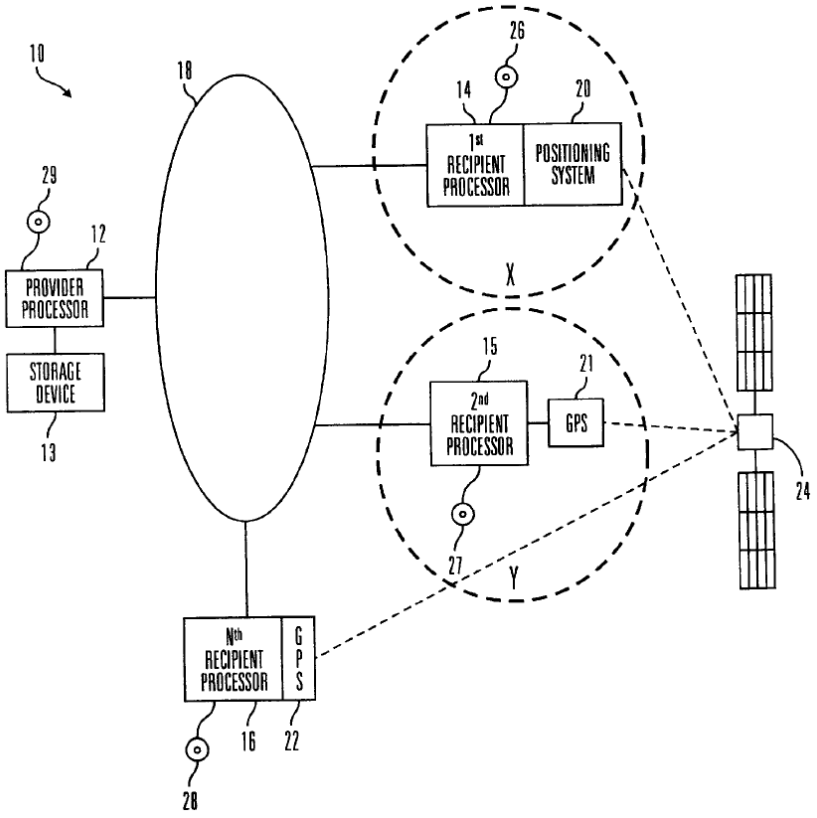


Figure 1 is a generalized schematic view of system 10.

Piccionelli's system 10 includes provider processor 12 and three exemplary recipient processors 14–16 disposed at mutually different geographic locations X, Y, etc. *See id.* at 3:58–64; 5:15–22. Each recipient processor 14–16 has an associated means 20–22 to provide a position signal indicating a geographic location of the means and, thereby, associated processor 14–16. *See id.* at 5:33–35; 6:12–17. Recipient processor 14 sends a request to provider processor 12 for a product or service, and includes information identifying a geographic location X of recipient processor 14 with the request. *See id.* at 6:66–7:10.

Provider processor 12 compares that geographic location information "with a table or list of non-restricted (or restricted or limited) regions" to determine whether recipient processor 14 "is within a restricted, limited or non-restricted access region." *Id.* at 11:60–66. If the geographic location information falls

within a restricted region, provider processor 12 does not provide the requested product or service. *See id.* at 2:42–61. If the geographic location information falls within a non-restricted region, provider processor 12 provides the requested product or service. *See id.*

2. Claims 25–29

According to Petitioner, Piccionelli discloses the "subscriber profile" of independent claim 25, as the pre-stored table or list of products or services having geographic limitations or restrictions. *See* Pet. 50 (citing Ex. 1002 (Cox Decl.) ¶¶ 63–65). Petitioner urges Piccionelli thereby provides a "spatial limitation *on access to the location information*" as recited in claim 25. *See id.* (emphasis added).

We conclude Petitioner's analysis of Piccionelli is flawed. In Piccionelli, the location information of the recipient processor is provided freely — without any limitation — in order to obtain access to a product or service controlled by the provider processor. In Piccionelli, it is access to the product or service of the provider processor that is limited, not access to information identifying the location of the recipient processor. Thus, we are not persuaded by Petitioner's contention that Piccionelli discloses claim 25's requirement that access to the location information is limited by a spatial limitation. Petitioner does not rely on Havinis '931 or Landgren in this regard, and Petitioner moreover does not contend this limitation would have been obvious even if not disclosed explicitly. Therefore, we determine Petitioner has not demonstrated it is more likely than not that claim 25 and its dependent claims 26–29 are unpatentable as obvious over Havinis '931 and Piccionelli, or Landgren and Piccionelli.

H. Obviousness Over Kingdon and Piccionelli

Petitioner contends claims 25–29 of the '752 patent are unpatentable under 35 U.S.C. § 103 as obvious over Kingdon and Piccionelli. *See* Pet. 72–79. On the record before us, we are not persuaded by this contention.

Petitioner's various comparisons of the Kingdon disclosure with the limitations of independent claim 25 indicate Petitioner's view is that Kingdon discloses each and every limitation of claim 25. *See id.* at 72–77. That is, for each limitation of claim 25, Petitioner provides a citation to Kingdon as disclosing the limitation. *See id.* Nonetheless, Petitioner does not contend claim 25 is unpatentable as anticipated by Kingdon, but rather contends claim 25 is unpatentable as obvious over Kingdon and Piccionelli. *See id.* To the extent Petitioner seeks Office review of claim 25 on the ground of being unpatentable as obvious over Kingdon alone, Petitioner does not identify any reason(s) to combine the elements allegedly disclosed in Kingdon in the fashion recited in claim 25. *See* Pet. 75–77; *see also KSR Int'l*, 550 U.S. at 418. Thus, Petitioner has not demonstrated it is more likely than not that claim 25 is unpatentable as obvious over Kingdon alone.

Petitioner's obviousness analysis relies on Piccionelli solely for its alleged disclosure of a subscriber profile with a spatial limitation on access to location information. *See* Pet. 75–77. For the reasons already set forth above, however, Petitioner has not established Piccionelli contains such a disclosure.

Thus, we conclude Petitioner has not demonstrated it is more likely than not that claim 25 and its dependent claims 26–29 are unpatentable as obvious over Kingdon and Piccionelli.

III. CONCLUSION

On the present record, we determine the information presented in the petition demonstrates it is more likely than not that claims 25–29 of the '752 patent are unpatentable. The Board, however, has not made a final determination under 35 U.S.C. § 328(a) with respect to the patentability of the challenged claims.

IV. ORDER

For the foregoing reasons, it is

ORDERED that pursuant to 35 U.S.C. § 324(a), a covered business method patent review is hereby instituted as to claims 25–29 of the '752 patent on the following grounds:

A. Claims 25–29 under 35 U.S.C. § 101, as being directed to non-statutory subject matter;

B. Claim 26 under 35 U.S.C. § 112, first paragraph, as failing to have written description support in the specification;

C. Claim 25 under 35 U.S.C. § 103 as being unpatentable as obvious over Havinis '931 and Leonhardt; and

D. Claim 25 under 35 U.S.C. § 103 as being unpatentable as obvious over Landgren and Leonhardt.

FURTHER ORDERED that all other grounds raised in the petition are denied because they are deficient for reasons discussed above.

FURTHER ORDERED that pursuant to 35 U.S.C. § 324(d) and 37 C.F.R. § 42.4 (2013), notice is hereby given of the institution of a trial; the trial commencing on the entry date of this Order.

FURTHER ORDERED that an initial conference call with the Board is scheduled for Tuesday, May 6, 2014 at 2:00 pm Eastern time; the parties are directed to the Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,765–66, for

guidance in preparing for the initial conference call, and should be prepared to discuss any proposed changes to the Scheduling Order entered herewith and any motions the parties anticipate filing during the trial.

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