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Paper 31
Entered: April 6, 2015

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 B2

Before MICHAEL W. KIM, JENNIFER S. BISK, and BARBARA A. PARVIS, *Administrative Patent Judges.*

BISK, *Administrative Patent Judge*.

FINAL WRITTEN DECISION

35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

Petitioner, Google Inc., filed a Petition pursuant to § 18 of the Leahy-Smith America Invents Act ("AIA").[1] Paper 1 ("Pet."). The Petition challenged claims 25–29 ("the challenged claims") of U.S. Patent No. 7,203,752 B2 ("the '752 patent"). On April 8, 2014, we instituted a transitional covered business method patent review (Paper 11, "Decision to Institute" or "Dec.") based upon Petitioner's assertion that the challenged claims are unpatentable based on the following grounds:

Reference[s][2]	**Basis**	**Claims Challenged**
Not Applicable	§ 101	25–29
Not Applicable	§ 112, ¶ 1	26
Havinis '931 and Leonhardt	§ 103	25
Landgren and Leonhardt	§ 103	25

A consolidated hearing for CBM2014-00004, CBM2014-00005, CBM2014-000006, IPR2014-00027, IPR2014-00036, IPR2013-00037, involving the same parties, was held January 13, 2015. Paper 30 (hearing transcript).

This is a Final Written Decision under 35 U.S.C. § 328(a). Based on the record presented, we are persuaded that Petitioner has shown by a preponderance of the evidence that the challenged claims are unpatentable.

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[1] Pub. L. No. 112-29, 125 Stat. 284, 296–07 (2011).

[2] U.S. Patent No. 6,104,931 (Ex. 1004) ("Havinis '931"); U.S. Patent No. 6,115,754 (Ex. 1005) ("Landgren"); 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) (Ex. 1008) ("Leonhardt").

B. The '752 Patent

The '752 patent relates to using location-based services over mobile wireless networks. Ex. 1001, 1:14–19. According to the '752 patent, at the time of the invention, services related to the provision of wireless communications, including those provided to mobile subscribers based on their geographic location, were common. *Id.* at 1:33–46. These so-called "location-based services" track the mobile subscriber as they move throughout the network so that the service may provide location-based information to either the subscriber (e.g., the closest gas station) or an entity monitoring the subscriber (e.g., an employer monitoring the location of its employees). *Id.* at 1:47–56.

Of course, location tracking raises privacy concerns. *Id.* at 1:60–63. To protect his or her privacy, a mobile subscriber may wish to limit access to their location information based upon many factors, including: (1) the time of the request; (2) the mobile subscriber's location at the time of the request; or (3) the party who is seeking the information. *Id.* at 1:63–2:1. The '752 patent addresses this need for controlled access to potentially sensitive location information by storing a "subscriber profile." *Id.* at 2:8–14. A subscriber profile includes a description of the services ("client applications") that may receive location information and the conditions under which that information may be provided to the services. *Id.* at 2:8–20. Figure 1 of the '752 patent is reproduced below.

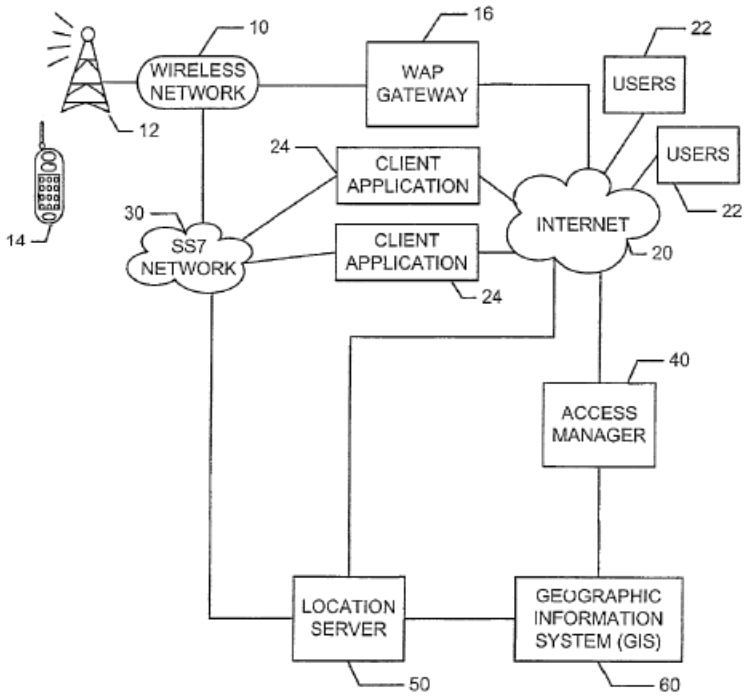


Figure 1 discloses the overall system architecture in which the invention described by the '752 patent operates. *Id.* at 4:12–13. Wireless communications device 14 communicates via tower 12 over wireless network 10. *Id.* at 4:28–32. Location server 50 periodically collects location data for wireless communication device 14. *Id.* at 4:51–56. Client application 24 communicates with access manager 40 to request wireless communication device 14's current location. *Id.* at 5:25–46. Access manager 40 determines if client application 24 is authorized to make the request under the current conditions by authenticating client application 24 and inspecting the contents of wireless communication device 14's subscriber profile. *Id.* at 5:38–46. Figure 3 of the '752 patent is reproduced below.

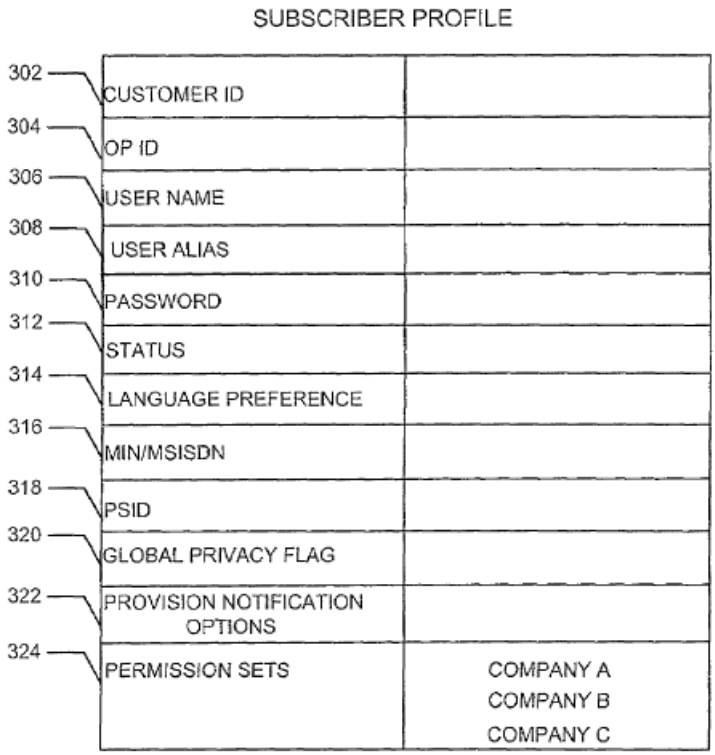


Figure 3 discloses an example subscriber profile. *Id.* at 4:17–18. In this example, the subscriber profile includes permission set 324 for each client application 24 (each of Company A, B, and C) authorized to access this subscriber's location information. *Id.* at 9:36–39. Each permission set 324 "may include a temporal permission set which identifies the time of day/day of week a particular authorized client 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 the requesting client application. *Id.* at 9:39–45.

C. Related Matters

Petitioner states that the '752 patent has been asserted against Petitioner in a related district court proceeding in the District of Nevada.

Pet. 79. Additionally, Petitioner filed a petition for an *inter partes* review in the following proceeding before the Board involving the '752 patent: IPR2014-00037. A final written decision in IPR2014-00037 is entered concurrently with this decision.

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

D. The Challenged Claims

Petitioner challenges claims 25–29 of the '752 patent. Of the challenged claims, only claim 25 is independent. 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.

Ex. 1001, 16:18–40.

> 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.

Ex. 1001, 16:41–46.

II. ANALYSIS

A. Claim Construction

We construe all terms, whether or not expressly discussed here, using the broadest reasonable construction in light of the '742 patent specification. *In re Cuozzo Speed Techs., LLC*, No. 2014-1301, 2015 WL 448667 at *7 (Fed. Cir. Feb. 4, 2015) ("We conclude that Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA."); 37 C.F.R. § 42.300(b). In the Decision to Institute, we expressly construed the following terms: (1) "spatial limitation on access to the location information" as "limitation on access to location information that depends on the mobile device's location"; and (2) "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." Dec. 7–9. Neither party has expressed disagreement with these constructions, and we see no reason to modify these constructions based on the evidence introduced during trial. For purposes of this Decision, we continue to apply these constructions for the same reasons as set forth in the Decision to Institute.

B. Obviousness Grounds—Claim 25

The Petition challenges the patentability of claims 25–29 of the '752 patent under 35 U.S.C. §§ 102 and 103. Pet. 46–79. After considering the arguments and evidence presented in the Petition and the Preliminary Response (Paper 8), we instituted trial with respect to claim 25, concluding that Petitioner was likely to prevail in showing unpatentability over combinations of (1) Havinis '931 and Leonhardt, and (2) Landgren and Leonhardt. Dec. 34.

1. Patent Owner's Arguments

Patent Owner was then afforded the opportunity to file a Patent Owner Response to address "any ground for unpatentability not already denied" by our Decision to Institute. 37 C.F.R. § 42.220. In its Patent Owner Response, Patent Owner does not address the grounds of unpatentability under § 103 for claim 25. Paper 22 ("PO Resp."), 3 ("The present response does not address the alleged grounds of unpatentability under §§ 102 and 103 for independent claim 25."). Thus, Patent Owner provides no substantive arguments beyond those previously asserted in its Preliminary Response (Paper 8). We previously considered those arguments, but did not find them persuasive. Dec. 17–29.

Thus, for these grounds we are left to consider only the evidence of record as presented in the Petition. *See* Pet. 56–59, 69–70. After

considering Petitioner's evidence with respect to claim 25, as explained in more detail below, we determine that the preponderance weighs in favor of unpatentability.

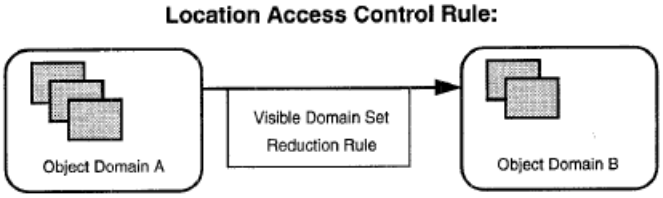
2. Overview of Havinis '931

Havinis '931 discloses a method requesting location services within a mobile communications system. Ex. 1004, 1:8–14. Specifically, Havinis '931 describes a "Location Application (LA)" that may request the location of a mobile station after registering with at least one "Gateway Mobile Location Center (GMLC"). *Id.* at 2:24–35, 3:43–51. This information is stored in a database called the "Home Location Register (HLR)" along with subscriber information including privacy preferences. *Id.* at 1:55–2:9, 7:16–29. Upon a request from a particular LA, the GMLC verifies the authenticity of the LA. *Id.* at 4:66–5:4. Once the GMLC determines that the LA is legitimate, it requests the mobile station's location from the HLR (*id.* at 7:16–45) and checks the privacy indications of the mobile station (*id.* at 7:46–65). If the mobile station's privacy settings allow location information to be sent to the LA under the current conditions, the information is forwarded. *Id.* at 8:1–9. Otherwise, a rejection message is sent. *Id.* at 7:66–8:1.

3. Overview of Leonhardt

Leonhardt describes "how to meet the need for location-dependent information by introducing a general-purpose location service for mobile environments" and "investigates mechanisms to exactly specify and supervise the level of access to location data that is wanted." Ex. 1008, 43. The mechanism Leonhardt proposes is a "flexible yet powerful access control mechanism[ ]" using a hierarchical structure of location information.

Id. at 47. Specifically, Leonhardt's mechanism includes a set of location access rules that define boundaries within which an object allows access to its location information. *Id.* These boundaries are defined using a "visible domain set[ ] (VDS)." *Id.* Only objects positioned in a location listed in the VDS of an access rule may be queried for their location. *Id.* To allow for personalized privacy preferences, "a user can specify his or her private location access authorisation policies in his or her personal user representation domain." *Id.* Figure 3 of Leonhardt is reproduced below.



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 of Leonhardt illustrates an example location access control rule "that specifies a policy which restricts the level of access for students to the location of members of staff." *Id.* Specifically, the VDS of Figure 3 includes, "Blackett Lab, Campus A, College, [and] CS Department." *Id.* If a student queries the location of staff located anywhere other than those four listed locations, their query will be unsuccessful. *Id.*

4. Overview of Landgren

Landgren discloses appending location information of a mobile unit onto its communications. Ex. 1005, 1:9–15. Specifically, Landgren describes an entity called a "location appending unit," which monitors communications passing between a gateway between a wireless network and

the Internet. *Id.* at 4:49–67, 5:28–41. When the location appending unit detects a requirement for location information on any communications, it determines the location of the mobile unit. *Id.* at 5:28–41. Part of this determination includes accessing a subscriber profile of the mobile unit. *Id.* at 8:56–59. The subscriber profile indicates whether the location appending unit is allowed to append its location information to a communication. *Id.* at 8:59–65. If allowed, the location appending unit appends the mobile unit's location information to the communication for delivery to the final destination. *Id.*

5. *Obviousness Over Havinis '931 and Leonhardt*

Petitioner asserts that Havinis '931 discloses all the features of claim 25, but acknowledges that Leonhardt expressly teaches the limitation "the subscriber profile including . . . 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" ("the permission set constraint limitation"). Pet. 56–57.

We have reviewed Petitioner's obviousness contentions and supporting evidence, including the Declaration of Dr. Donald Cox (Ex. 1002 ¶¶ 39–50, 68–70, 76), which read all elements of claim 25 of the '752 Patent onto the combined teachings of Havinis '931 and Leonhardt. Pet. 46–49, 51–53, 56–59 (citing Ex. 1004, 2:10–14, 23–26, 3:33–40, 4:37–45, 5:5–36, 7:47–66; Ex. 1008, Abs., 43, 47, Fig. 3). We are persuaded that Petitioner has shown claim 25 unpatentable over this combination. For instance, we are persuaded that Havinis '931 discloses "[a] method of controlling access to location information for wireless communications devices operating in a

wireless communications network" as recited by claim 25. Specifically, Havinis '931 discloses that the GMLC receives a positioning request for a mobile station from a location application and provides the requested information only if the location application is authorized and such access is permitted by the subscriber's privacy indication.

Moreover, we are persuaded that Havinis '931 discloses the recited "subscriber profile including a list of authorized client applications and a permission set for each of the authorized client applications." Specifically, we are persuaded that the location services profiles maintained by the GMLC database of Havinis '931 constitute a subscriber profile. Ex. 1004, 5:5–36; Ex. 1002 ¶¶ 41–44. As stated in our Decision to Institute, we are persuaded that these profiles "include limitations on the provision of location information corresponding to wireless devices, based on the privacy preferences of the wireless device user." Dec. 22. Moreover, the GMLC maintains a list of location applications (in the form of Location Application Identifier Numbers) corresponding to the claimed authorized client applications and identifies a location services profile corresponding to the claimed permission set. *See, e.g.*, Ex. 1004, 2:56–66.

Finally, we are persuaded that the remaining limitations recited by claim 25 are disclosed by the combination of Havinis '931 and Leonhardt. *See* Pet. 46–49, 51–53, 56–59; Dec. 21–25. For example, we are persuaded that Leonhardt discloses the "spatial limitation" component of the permission set constraint limitation. Leonhardt discloses requests for location information from querying objects may be constrained depending on the location of the target objects to be located. Ex. 1008, 47, Fig. 3; Ex. 1002 ¶¶ 68–70; *see* Pet. 57–59.

Furthermore, Petitioner has set forth a showing of articulated reasoning with rational underpinning to combine Havinis '931 and Leonhardt. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). For instance, Petitioner states:

> [a] person of ordinary skill 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.

Pet. 59 (citing Ex. 1004, 3:33–40). Relying on Dr. Cox, Petitioner adds that this modification "would have been nothing more than the application of a known method of privacy management to achieve a predictable result." Ex. 1002 ¶ 76. As explained in our Decision to Institute, we are persuaded the rationale set forth by Petitioner and Dr. Cox is reasonable. *See* Dec. 24–25. Subsequent to our preliminary finding, Patent Owner has provided no evidence or argument to the contrary. Thus, after once again evaluating Petitioner's arguments and supporting evidence, we conclude that Petitioner has shown by a preponderance of the evidence that it would have been obvious to combine the relied upon teachings of Havinis '931 and Leonhardt.

We conclude that Petitioner has shown by a preponderance of the evidence that claim 25 of the '752 Patent would have been obvious over Havinis '931 and Leonhardt.

6. Obviousness Over Landgren and Leonhardt

Petitioner asserts that Landgren discloses all the features 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." Pet. 61–66, 69–70. Petitioner relies on Leonhardt to make up this deficiency. *Id.* at 60–70.

We have reviewed Petitioner's obviousness contentions and supporting evidence, including the Declaration of Dr. Donald Cox (Ex. 1002 ¶¶ 52–55, 78), which read all elements of claim 25 of the '752 Patent onto the combined teachings of Landgren and Leonhardt. Pet. 61–66, 69–70 (citing Ex. 1005, Abs., 8:2126, 62–65; Ex. 1008, 43, 47). We are persuaded that Petitioner has shown claim 25 unpatentable over this combination. For instance, we are persuaded that Landgren discloses "receiving a request from a client application for location information for a wireless device" as recited by claim 25. Landgren discloses "an application operating on [a] web server . . . requesting the location appending unit . . . to intercept all communications." Ex. 1001, 5:52–58; *see id.* 8:21–42.

We are also persuaded that the remaining limitations recited by claim 25 are disclosed by the combination of Landgren and Leonhardt. *See* Pet. 61–66, 69–70; Dec. 27–29. For example, we are persuaded that 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). Ex. 1008, 47, Fig. 3; Ex. 1002 ¶¶ 68–70; *see* Pet. 61–66, 69–70. In addition, the querying objects (students) operate through applications to request location data. *Id.* Moreover, given that such location data may be provided, the applications used by the querying objects are authorized. *Id.* 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. *Id.*

Furthermore, Petitioner has set forth a showing of articulated reasoning with rational underpinning to combine Landgren and Leonhardt. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). For instance, Petitioner states:

> [a] person of ordinary skill 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.

Pet. 70. Relying on Dr. Cox, Petitioner adds that this modification "would have been nothing more than the application of a known method of privacy management to achieve a predictable result." Ex. 1002 ¶ 78. As explained in our Decision to Institute, we are persuaded the rationale set forth by Petitioner and Dr. Cox is reasonable. *See* Dec. 29. Subsequent to our preliminary finding, Patent Owner has provided no evidence or argument to the contrary. Thus, after once again evaluating Petitioner's arguments and supporting evidence, we conclude that Petitioner has shown by a preponderance of the evidence that it would have been obvious to combine the relied upon teachings of Landgren and Leonhardt.

We conclude that Petitioner has shown by a preponderance of the evidence that claim 25 of the '752 Patent would have been obvious over Landgren and Leonhardt.

C. Written Description—Claim 26

Petitioner contends that claim 26 lacks written description support under 35 U.S.C. § 112, ¶ 1.[3] Pet. 43–46. Specifically, Petitioner asserts that the limitations "notifying the wireless device that the client application is not authorized to receive the location information" ("the notifying limitation") and "updating the subscriber profile to authorize the client application to receive the location information during subsequent requests" ("the updating limitation") were added during prosecution and are not supported by the language of the originally filed application. *Id.* at 43 (citing Ex. 1003, 43).

In the Decision to Institute we instituted trial on this ground, concluding that Petitioner was likely to prevail in showing that the '752 patent fails to describe notifying the wireless device as required by the notifying limitation. Dec. 14–16. In addition, we concluded that Petitioner was likely to prevail in showing that the '752 patent fails to describe the combination of the notifying limitation and the updating limitation. *Id*. at 16–17.

1. Order of the Steps

As a preliminary matter, Patent Owner argues that the Decision to Institute erred in requiring a certain order to the steps of claim 26. PO Resp. 6–13. This argument centers on four limitations of claim 26: "determining that the client application is either not an authorized client application or not authorized to receive the location information" ("the determining limitation"); (2) "denying the client application access to the location

[3] Section 4(c) of the AIA re-designated 35 U.S.C. § 112 ¶ 1 as 35 U.S.C. § 112(a). Because the '752 patent has a filing date before September 16, 2012 (effective date of § 4(c)), we will refer to the pre-AIA version of 35 U.S.C. § 112.

information" ("the denying limitation"); (3) the notifying limitation; and (4) the updating limitation. The determining and denying limitations are recited sequentially in claim 25 and the notifying and updating limitations are recited sequentially in claim 26. *Id.* We agree with Patent Owner that "unless the steps of a method actually recite an order, the steps are not ordinarily construed to require one." *Altiris, Inc. v. Synantec Corp.*, 318 F.3d 1363, 1369 (Fed. Cir. 2003) (internal quotation marks omitted); PO Resp. 7.

Patent Owner argues that between these four limitations, the only potential temporal requirement is that the determining limitation may be required to take place before the notifying limitation. PO Resp. 8–13. We agree that this particular temporal requirement is required by the claim language, because "notifying the wireless device that the client application is not authorized" requires there first to have been a "determin[ation] that the client application is . . . not authorized."

According to Patent Owner, however, the order of the *denying* and notifying limitations are not related, and thus do not indicate a particular temporal requirement. *Id.* at 8–10. In particular, Patent Owner asserts that although listed later in the claim than the denying limitation (because the notifying limitation is recited in claim 26 while the denying limitation is recited in claim 25), the notifying limitation is not tied to the result of the denying limitation. *Id.* In other words, Patent Owner asserts that nothing in the claim language or the specification restricts the wireless device from being notified that a client application is not authorized to receive the location information *before* the client application is denied access to the location information. Petitioner does not appear to disagree with this

argument. *See* Paper 24 ("Reply") 1–5. We agree with Patent Owner that the denying and notifying limitations do not have to occur in any particular order in relation to each other.

Patent Owner also argues that nothing in the claim language or the specification requires a particular order of the notifying and updating limitations—"updating the subscriber profile to authorize the client application to receive the location information during subsequent requests." PO Resp. 10–13. In the Decision to Institute, we stated that "because the 'updating' step in claim 26 authorizes the client application to receive the location information 'during subsequent requests'" the updating limitation must follow the notifying step in time. Dec. 17. Patent Owner objects to this logic because although "during subsequent requests" expresses a timing element, that element is not tied to anything in the notifying limitation. *Id.* Petitioner agrees with the Decision to Institute, arguing that the updating limitation has to occur after the notifying limitation. Reply 6–7 (citing Ex. 2001 ¶¶ 20, 22 (Patent Owner's declarant testimony)).

We agree with Patent Owner that neither the claims nor the specification requires that the notifying limitation occur before the updating limitation. Instead, "during subsequent requests" logically refers to requests that occur after the subscriber profile has been updated. We agree that "subsequent" is not related to the immediately preceding claim limitation and we see no reason that a subscriber profile cannot be updated *before* the wireless device is notified that the client application is not authorized to receive the location information. Beginning with the claim language, "it neither grammatically nor logically indicates" that the notifying step must occur prior to the updating step. *Altiris*, 318 F.3d at 1370.

Although it is true that being notified that a client application is not authorized may prompt a subscriber to update their profile, nothing in the claim ties the updating limitation to such a reaction. In fact, claim 26 does not specify who or what does the updating of the profile. *See* Ex. 1001, 16:47–48 (claim 28 "[t]he method of claim 26 wherein the updating the subscriber profile is performed by the subscriber"). Thus, it is unclear why the updating limitation would be tied to the notification of the wireless device. Looking at the specification, we also see no requirement that the updating limitation occur after the notifying limitation and Petitioner does not point us to language supporting such a requirement. *See* Pet. 45–46; Reply 5–7. In fact, Petitioner acknowledges that the specification does not describe any embodiments in which the limitations occur in this order. Pet. 45 ("[a]lthough the '752 specification describes the subscriber profile can be modified . . . , it does not describe any embodiments in which the wireless device is notified that the client application is not authorized to receive the location information *and* the subscriber profile is then updated to authorize the client application in subsequent requests") (citing Ex. 1001, 8:60–9:25, Figs. 5, 6A, 6B; Ex. 1002 ¶¶ 37–38).

For these reasons, we conclude that, in claim 26, the denying and notifying limitations do not have to occur in any particular order in relation to each other.

2. Written Description Support for the Notifying Limitation

Petitioner contends that "the closest disclosure in the '752 specification" to the notifying limitation—"notifying the wireless device that the client application is not authorized to receive the location information"—is the following language: "If the information does not match, a 'denied

access' message will be presented to the requesting application." Pet. 44 (quoting Ex. 1001, 11:40–42). According to Petitioner, this language only describes notifying *the client application* of a denial of access and not notifying the wireless device as claimed and thus does not support the notifying limitation. *Id.* Petitioner points to other portions of the '752 patent that describe notifying the wireless device, but according to Petitioner, these sections only support notifications that occur after a client application has been cleared to receive location information, and therefore do not support notifying the wireless device of the correct information—in other words, Petitioner asserts that the notifying limitation requires notification that the client application is *not* authorized to receive the information. *Id.* at 44–45 (citing Ex. 1002 ¶¶ 34–36).

We are not persuaded that Petitioner has shown by a preponderance of the evidence that the '752 patent fails to provide sufficient written description support for the notifying limitation. Petitioner's only evidence that the notifying limitation is not sufficiently supported is its argument that the '752 patent fails to explicitly describe notifying *the wireless device* that access to the location information *was denied.* Pet. 44–45. Petitioner proffers testimony from Dr. Cox parroting, almost word for word, the argument in Petitioner's brief. Ex. 1002 ¶¶ 24–36. This argument and testimony, however, does not speak to the correct standard—whether the '752 specification "reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Moreover, "the disclosure as originally filed does not . . . have to provide *in haec verba* support for the claimed subject matter at

issue," nor must it describe "every conceivable and possible future embodiment of [the] invention." *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1365 (Fed. Cir. 2003) (internal quotation marks omitted).

We agree with Patent Owner, that the '752 patent broadly describes notifying the wireless device at any time during the described process. *See, e.g.*, Ex. 1001, 9:26–29 ("the system described herein is for a subscriber to receive a notification on their wireless communications device whenever a location request is made by any client application"). Moreover, as pointed out by Petitioner, the '752 patent describes sending "denied access" messages to client applications. *See* Pet. 44 (citing Ex. 1001, 11:40–42). Based on these disclosures, we are persuaded that the '752 patent provides broad support for providing notifications of various messages to different elements of the system at multiple points in the described process.

Petitioner has not pointed to anything in the '752 patent specification that clearly limits what messages can be sent to the various elements or when they can be sent. In fact, as Patent Owner points out, the Provisional Application explicitly contemplates "initiat[ing] a dialogue with the subscriber regarding permission for a location request." Ex. 1020, 22. Although Petitioner complains that this disclosure does not describe how a dialogue would occur or how messages are relayed (Reply 5), we are not persuaded that a person of ordinary skill in the art would disbelieve, based on the entirety of the '752 patent disclosure, that the inventor had possession of sending an access denied message to the wireless device at the appropriate time during the process.

Thus, we are persuaded that the '752 patent "provides ample support for the breadth" of the notifying limitation and does not "unambiguously

limit" its meaning to a narrower embodiment (e.g., notifying the wireless device only when a request has been made). *Cordis*, 339 F.3d at 1365. Petitioner has not shown by a preponderance of the evidence that the '752 patent fails to support the notifying limitation.

3. Written Description Support for the Updating Limitation

Petitioner also contends that, "[a]lthough the '752 specification describes that the subscriber profile can be modified," the '752 patent fails to provide sufficient written description support for the updating limitation—"updating the subscriber profile to authorize the client application to receive the location information during subsequent requests." Pet. 45. Petitioner bases this assertion on Figures 5, 6A, and 6B of the '752 patent, which are flow charts describing the steps performed in the authentication process. *Id.* According to Petitioner, because these figures show that "anytime the process reaches a 'deny access' step, the process flow terminates and there are no further steps," the updating limitation is not supported by the specification. *Id.* (citing Ex. 1002 ¶¶ 37–38).

Patent Owner responds that Petitioner's entire argument and all of its evidence rests on the flawed premise that the updating limitation must be performed *after* the notifying limitation. PO Resp. 20–24. As discussed above, we agree with Patent Owner that there is no requirement in the claims or the specification that the notifying limitation precede the updating limitation. Moreover, we are persuaded that because no such order is required, the '752 patent adequately supports updating the subscriber profile as claimed. *See, e.g.*, Ex. 1001, 9:12–25, 36–51. Thus, we agree with Patent Owner that Petitioner has not shown by a preponderance of the evidence that the '752 patent fails to support the updating limitation.

D. Non-Statutory Subject Matter

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. Supreme Court precedent provides three specific exceptions to the broad categories of § 101: laws of nature, physical phenomena, and abstract ideas. *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). "The 'abstract ideas' category embodies the longstanding rule that '[a]n idea of itself is not patentable.'" *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S.Ct. 2347, 2355 (2014) (citing *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (quotations omitted)).

In *Alice*, the Supreme Court referred to the framework set forth in *Mayo Collaboration Services v. Prometheus Laboratories, Inc.*, 132 S.Ct. 1289 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S.Ct. at 2355. In the first step, "we determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Id.* "If so, we then ask, '[w]hat else is there in the claims before us?'" *Id.* (quoting *Mayo*, 132 S.Ct. at 1297). In the second step, we consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application. *Id*. Step two of the analysis may be described as a search for an "inventive concept"—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself. *Id.* (citing *Mayo*, 132 S.Ct. at 1294).

1. Abstract Idea

Petitioner submits that the claimed invention is directed to the abstract idea of controlling access to location information using a subscriber profile. Reply 10; *see also* Pet. 37–43 (asserting that the challenged claims are at most abstract concepts being performed using general-purpose computer equipment). Patent Owner, to the contrary, asserts that the challenged claims are not abstract, but instead recite "a method to control whether a client application operating within a wireless communication network is allowed access to location information generated by wireless communications devices operating within the network." PO Resp. 25. According to Patent Owner, "[a]n underlying idea" of the claims "is protecting location information in an electronic system under control of individual subscribers using client application specific preferences," which is not abstract because the claims "do not preempt all practical implementations." *Id.* at 33–34.

We agree with Petitioner that the claimed invention is directed to an abstract idea, specifically, the abstract idea of controlling access to location information using a subscriber profile. The preambles and all claim limitations of both claims support this abstract idea, and the '752 patent repeatedly discloses that the invention is directed to controlling access to location information. *See, e.g.*, Ex. 1001, 1:14–19, 1:60–2:7. Patent Owner has not identified any portion of the '752 patent inconsistent with this abstract idea, and we are persuaded that the identified abstract idea is similar to the kind of "organizing human activity" at issue in *Bilski* and *Alice*. *See, e.g.*, *Planet Bingo, LLC v. VKGS LLC*, 576 F. App'x 1005, 1008 (Fed. Cir.

2014) (comparing "methods and systems for managing a game of Bingo" to the kind of "organizing human activity" at issue in *Bilski* and *Alice*).

Patent Owner does not direct us to any authority for its assertion that its claims are not abstract because the claims are technical in nature. In *Alice*, for example, the claims were found to be directed to an abstract idea even though they "relate[d] to a computerized scheme for mitigating 'settlement risk.'" *Alice*, 134 S.Ct. at 2352; *see also Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat'l Assoc.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (characterizing the claimed abstract idea as "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory," despite claim's recitation of specific limitations, such as a scanner).

Here, the challenged claims' combination of steps recites an abstraction because it has "no particular concrete or tangible form" and is "devoid of a concrete or tangible application." *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). The details emphasized by Patent Owner do not remove the claimed methods from the realm of the abstract. These details are characteristic of the invention's implementation, rather than its general idea. *Cf. buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354–55 (Fed. Cir. 2014) (describing the claim's abstract idea without including the claim's "computer network" limitation); *see also Ultramercial*, 772 F.3d at 715 (stating that more detailed limitations may "add a degree of particularity," but do not convert the concept embodied by the majority of the limitations into something concrete).

We are also not persuaded by Patent Owner's argument that the challenged claims are not abstract because they "recite a concrete and

detailed implementation of securing location information in a wireless communications network to improve a technological field" and "an improvement of a specific technology to control access to location information." PO Resp. 30. This particular argument is misplaced in this step of the analysis because "novelty in implementation of the idea is a factor to be considered only in the second step of the *Alice* analysis." *Ultramercial*, 772 F.3d at 715.

Finally, Patent Owner asserts that the claimed invention is not abstract because it does not fall within *Alice's* articulated examples of an abstract idea. PO Resp. 32. According to Patent Owner, the claimed subject matter "only exists within operation of a man-made wireless communications system, which precludes categorizing these claims as covering a preexisting fundamental truth" and cover "much more than a method of organizing human activities." *Id.*

As discussed above, however, we are persuaded that the identified abstract idea is similar to the kind of "organizing human activity" at issue in *Bilski* and *Alice.* Further, abstract ideas are not limited to the examples set forth in *Alice.* While the Supreme Court has not precisely defined "abstract idea," the Federal Circuit since *Alice* has invalidated patents encompassing a broad range of abstract ideas. We conclude that claims 25–29 of the '151 patent are comparable to other communication-based patents that have been invalidated after *Alice*. *See, e.g.*, *Content Extraction*, 776 F.3d at 1345 (holding claims drawn to the "basic concept of data recognition and storage" abstract); *Ultramercial*, 772 F.3d at 715 (holding the "process of receiving copyrighted media, selecting an ad, offering the media in exchange for watching the selected ad, displaying the ad, allowing the consumer access to

the media, and receiving payment from the sponsor of the ad all describe an abstract idea").

2. Inventive Concept

Turning to the second step of the analysis, we look for additional elements that can "transform the nature of the claim" into a patent-eligible application of an abstract idea. *Mayo*, 132 S.Ct. at 1297.

Patent Owner asserts that even if the challenged claims recite an abstract idea, they include limitations that amount to significantly more than an abstract idea. PO Resp. 34–35. According to Patent Owner,

> Starting with the preamble of claim 25, the claimed subject matter is focused on a unique combination of operations performed within a wireless network to protect location data generated by a wireless device. . . . Claim 25 continues by reciting a specific data structure (e.g., subscriber profile) for organizing and efficiently accessing client application specific user privacy preferences.

Id. at 35. Patent Owner argues that the subscriber profile adds "meaningful and *concrete* limitations to the claimed subject matter" providing "allowing subscribers to specify client application specific privacy preferences in a logical and efficient manner." *Id.*

On this record, we are not persuaded that the challenged claims of the '752 patent add an inventive concept sufficient to ensure that the patent in practice amounts to significantly more than a patent on the abstract idea itself. *Alice*, 134 S.Ct. at 2355; *see also Ultramercial*, 772 F.3d at 715 ("Those 'additional features' must be more than 'well-understood, routine, conventional activity.'"). The wireless network, wireless device, and access terminal are all defined in the specification as including commonly known technical solutions. Ex. 1001, 2:53–65. Thus, the hardware itself certainly

is not an inventive concept sufficient to transform the abstract idea into a patentable claim. *See Alice,* 134 S.Ct. at 2357.

Moreover, we are persuaded that the claimed subject matter does not do anything more than simply instruct the practitioner to implement the abstract idea of controlling access to location information on generic technology. *See Alice*, 134 S.Ct. at 2359. Despite its arguments that the subscriber profile and technical features of the claims add enough to make the claims patentable, Patent Owner fails to identify any language in the claims or the specification demonstrating that the generic technical elements operate in an unconventional manner or that the subscriber profile actually improves any specific technology. Instead, through the bare recitation of the steps of "receiving," "retrieving," "querying," "determining," "denying," "notifying," and "updating," the claims are "specified at a high level of generality," which the Federal Circuit has found to be "insufficient to supply an 'inventive concept.'" *Ultramercial*, 772 F.3d at 716. Similarly, we are not persuaded that by Patent Owner's argument that the specific data structure of the subscriber profile adds meaningful limitations to the abstract idea. Instead, the subscriber profile simply uses a table or other generic computer data structure to implement the idea of gathering a list in one place. This does not transform an abstract idea into patentable subject matter.

In *DDR Holdings*, the Federal Circuit found that the challenged patent was valid because it "specif[ied] how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional" aspects of the technology. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1258–59 (Fed. Cir. 2014). Here, instead of

overriding a routine sequence of events, as discussed above, the claims apply conventional computer technology to control access to certain information. This conclusion is unaltered by the fact that the use of such a system may have advantages over prior art access methods. *Parker v. Flook*, 437 U.S. 584, 590 (1978) (reasoning that "the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques."). The linkage of existing communication systems and devices to existing processes of accessing information, as claimed here, appears to be a "'well-understood, routine, conventional activity' previously known to the industry." *Content Extraction*, 776 F.3d at 1347–48 (quoting *Mayo*, 132 S.Ct. at 1294). None of the technical limitations, viewed "both individually and as an ordered combination," transform the nature of the claims into patent-eligible subject matter. *See Alice*, 134 S.Ct. at 2355 (quoting *Mayo*, 132 S.Ct. at 1297, 1298).

3. Conclusion

We are persuaded that Petitioner has shown by a preponderance of the evidence that claims 25–29 of the '752 patent are unpatentable under 35 U.S.C. § 101.

III. ORDER

Accordingly, it is:

ORDERED that claims 25–29 of the '752 patent are determined to be *unpatentable*; and

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

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