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Paper 10
Entered: September 7, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ERICSSON INC.,
Petitioner,

v.

KONINKLIJKE KPN N.V.,
Patent Owner.

IPR2023-00582
Patent 8,660,560 B2

Before NORMAN H. BEAMER, KARA L. SZPONDOWSKI, and SCOTT RAEVSKY, *Administrative Patent Judges*.

BEAMER, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

On February 17, 2023, Ericsson, Inc. ("Petitioner") filed a Petition ("Pet.") pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1 and 6–8 of U.S. Patent No. 8,660,560 B2 ("the '560 patent"). Paper 1 ("Pet"), 1. On June 20, 2023, Koninklijke KPN N.V. ("Patent Owner") filed a Preliminary Response ("Prelim. Resp."). Paper 6. Subsequently, with our authorization, the parties filed briefs on the issue of discretionary denial. Paper 7 ("Reply"); Paper 8 ("Sur-Reply").

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and any preliminary response shows that "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." *See* 37 C.F.R. § 42.108 (2022).

For the reasons explained below, we determine that Petitioner has established a reasonable likelihood that it would prevail with respect to at least one challenged claim. Accordingly, we institute an *inter partes* review as to the challenged claims and grounds raised in the Petition.

II. BACKGROUND

A. The '560 Patent

The '560 patent, titled "System For Updating A Neighbour Cell List (NCL) Of A Wireless Access Node Of A Telecommunications Architecture And Method Therefore," was filed on October 5, 2010 and issued on February 25, 2014. Ex. 1001, codes (54), (22), (45). The '560 patent is directed to updating neighbour cell lists of wireless access nodes. *Id.* at code (57). Figure 1 is reproduced below.

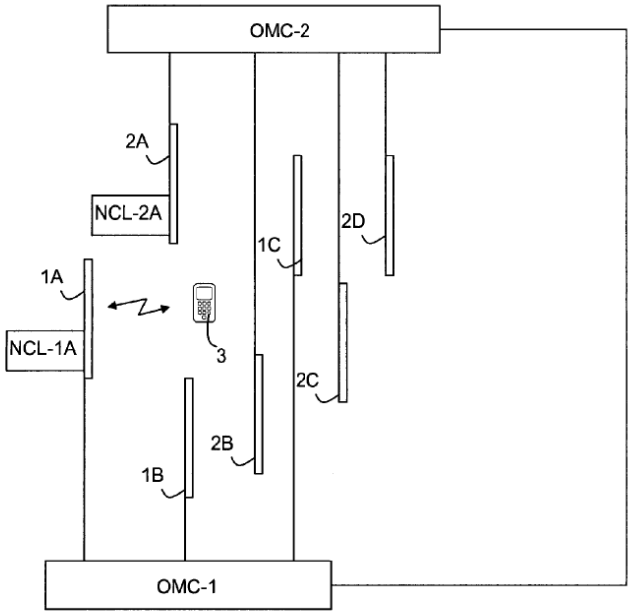

FIG. 1

Figure 1 is a schematic illustration of a telecommunications system with two different wireless access networks, each having wireless access nodes — nodes 1A–1C in the first network and nodes 2A–2D in the second network. Ex. 1001, 6:12–15, 6:32–35. A "wireless access node" is also referred to as a "cell," and each node/cell is associated with a "Base Station." *Id.* at 1:35, 2:65–66. The first network, for example, could be a Long Term Evolution (LTE) network, and the second a UMTS network. *Id.* at 6:36–38. Each network is controlled by an Operation and Maintenance Center (OMC-1 and OMC-2), and each node has at least one neighbour cell list (*e.g.*, NCL-1A and NCL-2A). *Id.* at 6:57–60. A mobile user terminal 3 receives and stores the NCL of the node that it currently is located in. *Id.* at 6:63–65. As explained in the '560 patent:

> When moving through the coverage area of a wireless access cellular network, mobile user terminals continuously scan the spectrum for pilot or reference signals (beacons) in order to determine which cell (base station) to camp on . . . . [T]his is referred to as handover. The cell-specific list of

> surrounding cells that are considered for cell . . . handover is called the neighbour cell list (NCL), which is stored in each base station and broadcast within the cell. The mobile user terminal receives and stores the NCL. The NCL contains the cells for which the mobile user terminal should send measurement reports (when certain criteria are met) to the base station currently serving the user terminal.

Ex. 1001, 1:32–45. The measurement reports from the mobile user terminal provide the signal strengths of the monitored cells, so that the network can make a decision whether or not the mobile user terminal should be handed over from the current serving cell to another cell. *Id.* at 6:65–7:3. A "transfer threshold determines at what level (typically involving pilot signal measurements) cell . . . handover would occur." *Id.* at 5:41–44.

The determination of the cells identified in the NCLs was traditionally done with the aid of off-line planning tools, using path loss predictions and (off-line) optimization algorithms. Ex. 1001, 1:49–51. The '560 patent discloses an automated configuration and optimization of NCLs, based on actual measurement feedback from mobile user terminals. *Id.* at 1:51–55. The measurement reports are used to update the identities of the neighboring cells included in the NCLs. *Id.* at 7:14–17. The cells are identified by, *inter alia*, their Global Cell Identifiers (GCID). *Id.* at 9:52–54.

Figure 2, reproduced below, depicts further details of a mobile user terminal and wireless access nodes (*i.e.*, cells). Ex. 1001, 6:16–18, 7:19–20.

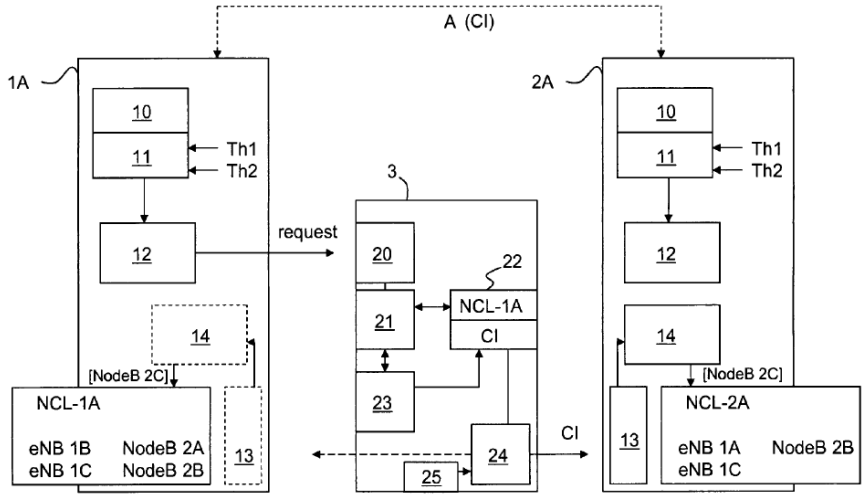

FIG. 2

Figure 2 depicts node 1A of a first network, node 2A of a second network, and mobile user terminal 3, the latter of which is "camped on" node 1A and monitoring neighboring cells, including node 2A. Ex. 1001, 7:25–28. As indicated, NCL-1A contains the identities (*e.g.*, the GCIDs) of nodes 1B, 1C, 2A, and 2B. *Id.* at 7:19–24. Assuming node 1A receives a measurement report from mobile user terminal 3 indicating handover to node 2A (for example), cell reselection/handover detector 10 recognizes that fact and triggers selection module 11, which determines whether mobile user terminal 3 should, in addition to being handed over, also participate in the process for updating of NCL-1A or NCL-2A. *Id.* at 7:31–44.

Selection module 11 filters an appropriate portion of the mobile user terminals for which cell reselection or handover is about to take place, in order to reduce unnecessary signalling over the first and/or second wireless access network. *Id.* at 7:45–48. Filtering criteria include providing the mobile user terminal with a "likelihood parameter" used to "flip a biased coin in determining whether it should send information at a specific handover or cell reselection instance." *Id.* at 5:13–17, 7:55–58. Other

filtering criteria include consideration of the geographic location of the mobile user terminal (obtained using GPS module 25), and use of the handover transfer threshold setting (for example, in situations where the handover thresholds are asymmetric *vis-à-vis* transfer from a first network to a second, *versus* from the second network to the first). *Id.* at 5:25–67, 7:65–8:5, 9:59–62. These criteria allow the amount of cell information measuring and reporting to be tuned, providing a trade-off between the measurement overhead (signalling load) and the potential for neighbour cell list optimization. *Id.* at 5:21–24.

If mobile user terminal 3 is selected by selection module 11, request generator 12 is activated in order to request user terminal 3 to report the cell information of a plurality of wireless access nodes. Ex. 1001, 8:28–31. Receiver 20 of mobile user terminal 3 receives the request, determination module 21 determines from which cells the cell information for the purpose of the NCL update should be gathered, scanning module 23 performs the measurements, and transmitter 24 transmits the measured cell information to the telecommunications system. *Id.* at 8:28–9:22. The transmitted information is received by receiver 13 of either or both of the nodes participating in the handover (*e.g.*, nodes 1A and/or 2A), and updater 14 updates the NCLs of the receiving node(s) based on the received signal strength measurements. *Id.* at 9:23–34, 9:46–48.

B. Illustrative Claim

Independent claim 1 is reproduced below.

> 1. A system for updating a neighbour cell list in a telecommunications architecture comprising a first wireless access network having a first wireless access node for which at least one first neighbour cell list is defined and a second

wireless access network having a second wireless access node for which at least one second neighbour cell list is defined, the system comprising:

a detector configured for detecting user terminals to be transferred from the first wireless access node of the first wireless access network to the second wireless access node of the second wireless access network;

a selector configured for selecting a part of the user terminals;

a request generator configured for requesting from the first wireless access node one or more of the selected user terminals to report cell information of a plurality of wireless access nodes of at least one of the first wireless access network and the second wireless access network;

a receiver configured for receiving the cell information from the one or more of the selected user terminals; and

updating means configured for updating at least one of the first neighbour cell list and the second neighbour cell list using the received cell information.

Ex. 1001, 11:50–12:5.

C. References

Petitioner relies on the following references (Pet. 11):

- Amirijoo et al., U.S. Patent Publication No. 2009/0191862 ("Amirijoo"). Ex. 1005.
- 3GPP TR 32.816 v1.0.0 ("3GPP TR 32.816"). Ex. 1007.

In addition, Petitioner filed the Declaration of Dr. Mark P. Mahon in support of the Petition. Ex. 1002 ("Mahon Decl.").

D. Asserted Challenges to Patentability

Petitioner challenges the patentability of claims 1 and 6–8 of the '560 patent on the following basis (Pet. 11):

Claims Challenged	35 U.S.C. §[1]	References
1, 6–8	103	Amirijoo, 3GPP TR 32.816

E. Real Parties in Interest

Petitioner identifies Ericsson Inc. and Telefonaktiebolaget [Telephone Corporation] LM Ericsson as real parties in interest. Pet. 1. Patent Owner identifies itself as a real party in interest. Paper 4, 1.

F. Related Proceedings

The parties identify *Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson et al.,* No. 2:22-cv-00282 (E.D. Tex.) (hereafter, "the Texas case"), as a related proceeding. Pet. 1; Paper 4, 1.

III. ANALYSIS OF PETITIONER'S CHALLENGE

A. 35 U.S.C. § 314(a)

Patent Owner argues that we should exercise our discretion under 35 U.S.C. § 314(a) to deny the Petition in light of the Texas Case. Prelim. Resp. 7–16; Sur-reply 1–5. Section 314(a) states that

> [t]he Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any

[1] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), included amendments to 35 U.S.C. §§ 102 and 103 that became effective after the filing of the application for the '560 patent. Therefore, we apply the pre-AIA versions of these sections.

> response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Under § 314(a), we have discretion to deny institution of an *inter partes* review. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016). We consider several factors when determining whether to deny institution under § 314(a) based on a parallel district court proceeding, specifically

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"). We also consider "several clarifications" made by the Director of the United States Patent and Trademark Office ("USPTO"). *See* USPTO Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation, 2 (June 21, 2022), *available at* https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf ("Director's Memo").

1. Factor 1 – Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted

Under the first *Fintiv* factor, we consider "whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted." *Fintiv*, Paper 11 at 6. Petitioner indicates that it intends to seek a stay upon institution, and does not dispute that this factor is neutral. Pet. 12; Reply 1. Patent Owner agrees that this factor is neutral. Prelim. Resp. 9; Sur-Reply 4.

Neither party identifies any statements by the District Court or other evidence that specifically address a stay of the District Court Litigation pending this proceeding. *See* Pet. 19; Prelim. Resp. 66–67; Reply 1; Sur-reply 4. We decline to speculate based on the record in this case whether the District Court would grant a stay of the District Court Litigation. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020) (informative) ("*Fintiv II*"). As a result, we determine that the first *Fintiv* factor is neutral.

2. Factor 2 – Proximity of the court's trial date to the Board's projected statutory deadline for a final written decision

Under the second *Fintiv* factor, we consider the "proximity of the court's trial date to the Board's projected statutory deadline for a final written decision." *Fintiv*, Paper 11 at 6. Petitioner argues that "[i]t is reasonable to expect" that the District Court's trial date of April 1, 2024, "will be rescheduled" because "six other cases" also are scheduled for trial on the same day. Reply 1. Petitioner also argues that "there will almost certainly be additional post-trial motions addressing the invalidity issue" in the District Court Litigation "that go unaddressed by the final written decision deadline" in this case. *Id.* at 2. Petitioner concludes that the second

factor "favors institution." *Id.* Patent Owner argues that the second factor favors "denying institution" because the District Court's trial date of April 1, 2024, is "almost six months" before the expected date of the Board's final written decision. Prelim. Resp. 9–10; Sur-reply 1–2. According to Patent Owner, Petitioner's argument regarding possible trial delays is "speculative." Sur-reply 2.

The current trial date in the District Court Litigation is April 1, 2024. Ex. 2005, 1. The projected statutory deadline for a final written decision in this case is in September 2024. Thus, the current trial date in the District Court Litigation is almost six months before the projected statutory deadline for a final written decision in this case. As a result, we determine that the second *Fintiv* factor favors discretionary denial of institution.

3. Factor 3 – Investment in the parallel proceeding by the court and the parties

Under the third *Fintiv* factor, we consider the "investment in the parallel proceeding by the court and the parties." *Fintiv*, Paper 11 at 6. Petitioner argues that "[t]he district court claim construction hearing, the close of discovery, and rulings on dispositive motions, Daubert motions, and motions in limine are all scheduled after the September 16, 2023 [*sic* — September 20, 2023] institution deadline." Reply 3. Petitioner also argues that it "diligently filed its Petition less than six weeks after it received Patent Owner's infringement contentions . . . and well before serving initial invalidity contentions" in the District Court Litigation. *Id.* at 2–3 (emphasis omitted). Petitioner thus contends that the third factor weighs "strongly in favor of institution." *Id.* at 4. Patent Owner argues that the third factor "favors denying institution" because the parties 1) exchanged infringement

and invalidity contentions; 2) responded to discovery requests; 3) conducted a deposition; 4) produced and reviewed a large volume of documents and source code; and 5) started the claim construction process. Prelim. Resp. 11–12; Sur-reply 4.

The evidence of record indicates that the District Court and the parties have invested only minimal resources in the District Court Litigation as to issues of unpatentability involving the '560 patent. We recognize that Petitioner served invalidity contentions regarding the '560 patent. Ex. 2015. But the evidence of record indicates that the claim construction process and fact discovery are ongoing, expert discovery has not begun, and the deadline for dispositive motions is not until December 2023. Ex. 2010, 3–4. Further, Petitioner exercised reasonable diligence in filing the Petition about six weeks after receiving Patent Owner's disclosure of asserted claims and infringement contentions in the District Court Litigation. Reply 2–3; Ex. 1016, 5. Thus, we determine that the third *Fintiv* factor weighs against discretionary denial of institution.

4. Factor 4 – Overlap between issues raised in the petition and in the parallel proceeding

Under the fourth *Fintiv* factor, we consider the "overlap between issues raised in the petition and in the parallel proceeding." *Fintiv*, Paper 11 at 6. Petitioner states that "if the Patent Trial and Appeal Board institutes an IPR in this proceeding on the grounds presented in the Petition, Petitioner will not pursue an invalidity defense in the district court action (C.A. No. 2:22-cv-282-JRG) that the patent claims subject to the instituted IPR are invalid based on the same grounds as in the Petition or on the references that are the bases for those grounds (*e.g., Angelot* and 3GPP TR 32.816)." Reply

4–5. Patent Owner argues that "Petitioner's stipulation 'falls far short of a *Sotera*-type stipulation,'" and thus factor four "weighs 'somewhat' against denial." Sur-reply 3.

The Petition challenges claims 1 and 6–8, and relies on Angelot and 3GPP TR 32.816. Pet. 11. Petitioner's invalidity contentions in the District Court Litigation also address claims 1 and 6–8, and rely on Angelot and 3GPP TR 32.816. Ex. 2015, 1, 11. Nonetheless, Petitioner's stipulation that it will not rely on the grounds or references asserted in the Petition in the District Court Litigation mitigates to at least some degree concerns of duplicative efforts and potentially conflicting decisions. Reply 4–5; *see Sand Revolution II, LLC v. Continental Intermodal Grp. – Trucking LLC*, IPR2019-01393, Paper 24 at 12 (PTAB June 16, 2020) (informative). Thus, we determine that the fourth *Fintiv* factor weighs at least slightly against discretionary denial of institution.

5. Factor 5 – Whether the petitioner and the defendant in the parallel proceeding are the same party

Under the fifth *Fintiv* factor, we consider "whether the petitioner and the defendant in the parallel proceeding are the same party." *Fintiv*, Paper 11 at 6. Here, Petitioner is the defendant in the District Court Litigation. Prelim. Resp. 14; Reply 5. Under these circumstances, we determine that the fifth *Fintiv* factor favors discretionary denial of institution.

6. Factor 6 – Other circumstances that impact the Board's exercise of discretion, including the merits

Under the sixth *Fintiv* factor, we consider "other circumstances that impact the Board's exercise of discretion, including the merits." *Fintiv*,

Paper 11 at 6. "[W]here the PTAB determines that the information presented at the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily deny institution under *Fintiv*." Director's Memo at 4–5. Petitioner argues that the Petition "presents a compelling unpatentability challenge of the '560 [p]atent, so the Board should not discretionarily deny institution." Reply 5. Patent Owner argues that the Petition "fails to present compelling evidence of unpatentability." Prelim. Resp. 15.

On balance, we determine that *Fintiv* factors 1–5 do not favor discretionary denial of institution. Specifically, we determine that Petitioner's stipulation and reasonable diligence in filing the Petition as well as the parties' minimal investment in the District Court Litigation outweigh the projected trial date. *See* Director's Memo at 8 ("[W]hen analyzing the proximity of the court's trial date under factor two of *Fintiv*, when other relevant factors weigh against exercising discretion to deny institution or are neutral, the proximity to trial should not alone outweigh all of those other factors."). As a result, we need not decide whether Petitioner presents a compelling unpatentability challenge. *See CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 4–5 (PTAB Feb. 27, 2023) (decision on Director review) (precedential) ("[I]n circumstances where the Board determines that the other *Fintiv* factors 1–5 do not favor discretionary denial, the Board shall decline to discretionarily deny under *Fintiv* without reaching the compelling merits analysis.").

7. Summary

Based on our holistic view of the *Fintiv* factors, we decline to exercise our discretion under § 314(a) to deny the Petition.

B. Legal Standards

To prevail in its challenge, Petitioner must show a reasonable likelihood that at least one claim is unpatentable. 35 U.S.C. § 314(a). Under § 314, the Board is required to make a binary choice to institute review or not. *SAS Institute Inc. v. Iancu*, 138 S.Ct. 1348, 1355 (2018). "In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (2012) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")). This burden of persuasion never shifts to the patent owner. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective indicia of non-obviousness (also called secondary considerations), such as

commercial success, long-felt but unsolved needs, and failure of others.[2] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). We analyze grounds based on obviousness in accordance with the above-stated principles.

C. Level of Skill in the Art

In determining whether an invention would have been obvious at the time it was made, 35 U.S.C. § 103(a) requires us to resolve the level of ordinary skill in the pertinent art at the time of the invention. *Graham*, 383 U.S. at 17. The person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). Factors that may be considered in determining the level of ordinary skill in the art include, but are not limited to, the types of problems encountered in the art, the sophistication of the technology, and educational level of active workers in the field. *Id.* In a given case, one or more factors may predominate. *Id.*

Petitioner asserts that a person of ordinary skill in the art at the time of the alleged invention of the '560 patent:

> would have had a B.S. in Electrical Engineering or a related field with at least three years of experience designing, developing, and/or testing telecommunication systems . . . . A POSITA would also have familiarity with the wireless standards and protocols related to data transmission and network management . . . . More education may supplement practical experience or vice versa.

Pet. 11 (citing Mahon Decl. ¶¶ 31–37). Patent Owner does not contest Petitioner's proposal at this stage of the proceeding. Prelim. Resp. 21–22.

[2] The record does not include evidence or argument regarding objective indicia of nonobviousness.

Petitioner's proposal is consistent with the level of ordinary skill in the art reflected by the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *GPAC*, 57 F.3d at 1579. On this record, the level of ordinary skill is neither in dispute nor dispositive of any challenge. For purposes of this Decision, we apply Petitioner's articulation.

D. Claim Construction

The Petition was accorded a filing date of February 17, 2023. Paper 5. In an *inter partes* review for a petition filed on or after November 13, 2018, a claim "shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b)." 37 C.F.R. § 42.100(b). We apply the claim construction standard from *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (*en banc*).

Claim terms need only be construed to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

Petitioner submits that the "updating means" of claim 1 should be construed pursuant to pre-AIA 35 U.S.C. § 112, ¶ 6, and provides a proposed construction in accord with that provision, including identifying "updater 14" as the structure disclosed in the '560 patent that corresponds to the updating means. Pet. 8–9. For purposes of this Decision, it is not necessary to decide this construction issue.

Petitioner also proposes construction of the "location information" of claim 7 by relying on the fact that Patent Owner, in the Texas case, has served infringement contentions which compare the claim 7 requirement, "configured for receiving location information from one or more of the

detected user terminals," to "information regarding at least the cell in which the terminal is operating, such cell corresponding to a particular geographic coverage area." Pet. 10 (citing Ex. 1011, 7–8). Based on this, Petitioner proposes to construe the claimed "location information" as including "information regarding the cell in which a terminal is operating." *Id.*

Petitioner's construction is presented without any consideration of the intrinsic record and is based solely on extrinsic evidence (PO's infringement contentions). At this stage, this construction appears overly broad and we are not persuaded that it is correct. The "detected user terminals" of claim 7 are, according to claim 1, "user terminals to be transferred *from the first wireless access node* of the first wireless access network." Ex. 1001, 11:57–59 (emphasis added). Thus, the detector of claim 1 has already identified the user terminal as located *somewhere* within "the cell in which a terminal is operating." To construe claim 7 as merely again ascertaining that the user terminal is somewhere within its cell appears to be a redundancy that serves no purpose.

Considering the intrinsic evidence, the location information described in illustrative embodiments of the '560 patent is information generated by GPS module 25 or "by means of measurements using the first and/or the second wireless access network." Ex. 1001, 5:25–30, 9:59–62. As explained in the '560 patent:

> This location information can be useful e.g. in identifying where handover regions exist, and in solving location-specific outages or problems, e.g. dropped calls due to missing neighbour. It may also be useful when an operator changes configuration (optimisation of downlink power, antenna tilt, etc) and wants to measure the effect on the cells relevant for inter-RAT cell change or handover.

Ex. 1001, 5:30–42. Thus, the "location" of claim 7 is the actual location of the "detected user terminals" within the cell in which the terminals are operating.

In Patent Owner's arguments regarding Petitioner's challenge to claim 8, Patent Owner compares the claim 8 requirement, "thresholds . . . for transferring the user terminals between the first wireless access network and the second wireless access network," to the claim 1 requirement, "user terminals to be transferred from the first wireless access node . . . to the second wireless access node," and argues that the former refers to a "two-way transfer" and the latter to a "one-way transfer." Prelim. Resp. 44. As further discussed in Section III.E.4.c) below in our analysis of Petitioner's challenge to claim 8, the evidence at this stage does not support an interpretation requiring two-way transfers in claim 8.

An additional claim construction issue, not raised by the parties, is presented by the claim 1 requirement, "a selector configured for selecting a part of the user terminals." The "user terminals" referred to in this requirement are the user terminals that are detected in the claim 1 requirement, "a detector configured for detecting user terminals to be transferred . . . ." Ex. 1001, 11:57–58. Thus, the selected user terminals must be selected from the set of user terminals that have first been detected for transfer as claimed. On this record, merely selecting user terminals that happen to be in the wireless access network without regard to whether or not they have been detected is not encompassed by claim 1. This point is further discussed in our analysis of Petitioner's challenge to claim 1 in Section III.E.3.c) below.

E. Alleged Obviousness of Claims 1 and 6–8 Over Amirijoo and 3GPP TR 32.816

Petitioner challenges claims 1 and 6–8 as obvious over the combination of Amirijoo and 3GPP TR 32.816. Pet. 22–49.

1. Amirijoo

Amirijoo, titled "Inter-RAT/Frequency Automatic Neighbor Relation List Management," was filed on December 10, 2008 and issued on July 30, 2009. Ex. 1005, codes (54), (22), (45). "RAT" is an acronym for "Radio Access Technology." *Id.* ¶ 15. Amirijoo is directed to automatically managing neighborhood relation lists (NRLs) by a serving radio base station nodes directing mobile stations to obtain information, such as Cell Global Identities (CGI), broadcasted by candidate radio base stations during a "reading gap," which is the time period in which a mobile station does not receive information from the serving radio base station. *Id.* at codes (54), (57), ¶¶ 6, 27–30. Each mobile station (MS) periodically monitors the signal quality of the serving base station (BS) as well as the signal quality of base stations in its surroundings and reports the measurements back to the serving radio base station. *Id.* ¶ 13. The radio network initiates handovers based on these measurements. *Id.* If the estimated signal quality of the serving base station falls below a certain threshold, and the estimated signal quality of the candidate base station is above a threshold, then the handover procedure may be initiated. *Id.* at Fig. 13, ¶¶ 17–20.

As stated in Amirijoo:

> Previously . . . NRL lists have been populated using planning tools by means of coverage predictions before the installation of a base station (BS). Prediction errors, due to inaccuracies in topography data and wave propagation models,

> have forced the operators to resort to drive/walk tests to completely exhaust the coverage region and identify all handover regions and as such the neighbors. Since a radio network gradually evolves over time with new cells and changing interference circumstances, traditional planning of NRL requires iterative repetitions of the planning procedure. This has proven to be costly and new methods for automatically deriving NRLs are required. Thus, it is essential to make use of automatic in-service approaches for generating and updating NRLs.

Ex. 1005 ¶ 24. Figure 3 of Amirijoo is reproduced below.

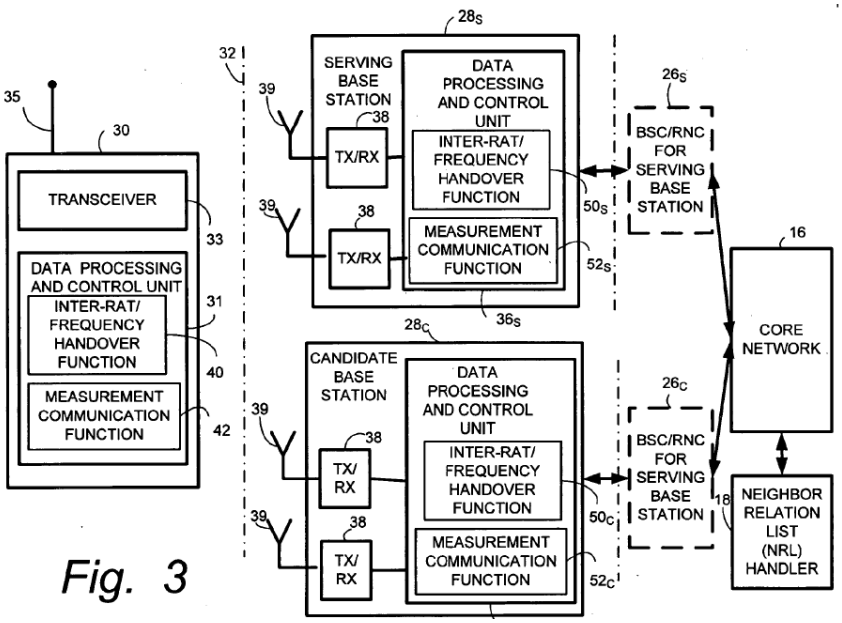

Fig. 3

Figure 3 is a block diagram showing mobile station 30, serving base station node 28_S, and candidate base station node 28_C. Ex. 1005 ¶¶ 50, 69, 74–75. For example, serving base station 28_S can be in a 2G (GERAN) network and candidate base station 28_C can be in a 3G (UTRAN) network. *Id.* at Fig. 1, ¶ 66. Each of those devices has a "data processing and control unit" which includes a "inter-RAT/frequency handover function" and a "measurement communication function." *Id.* ¶¶ 75–77. The measurement communication function modules control communications between the devices when

requesting or obtaining measurements or information (e.g., measurements or information for potential handover purposes). *Id.* ¶¶ 75, 77. The inter-RAT/frequency handover function is invoked when it is determined that a handover is to occur. *Id.*

In addition, triggering conditions are set to cause selected mobile stations to perform measurements via the measurement communication functions to detect new base station neighbors. Ex. 1005, Fig. 4, ¶ 79. Triggering conditions can include a mobile station having a low data rate, or a mobile station with an estimated signal quality of the serving base station below a given threshold. *Id.* ¶¶ 83–85. The threshold can be the same threshold as is used for handover measurements, or set higher than the handover threshold, and can "depend on the service, subscription type, UE type etc." *Id.* ¶¶ 87–89. The triggering conditions can be evaluated either at the base station, which would receive measurements from the mobile station and make the evaluation, or at the mobile station, in which the base station would inform the mobile station regarding the triggering conditions and the mobile station would evaluate the conditions. *Id.* ¶ 79. Once triggered, the mobile station measures the signal quality of surrounding base stations, which measurements are performed during the reading gaps. *Id.* at Fig. 4, ¶ 80. The measurements are reported to the serving base station, and based on the measurements, the neighborhood relation lists are updated. *Id.* at Fig. 4, ¶¶ 80, 82.

2. 3GPP TR 32.816

3GPP TR 32.816 is titled "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication management; Study on Management of LTE and SAE

(Release 8)." Ex. 1007. 3GPP TR 32.816 is cited in Amirijoo as a reference in support of a description of standardization work to "ensure that the new [E-UTRAN] network is simple to deploy and cost efficient to operate." Ex. 1005 ¶ 16. 3GPP TR 32.816 includes discussion of "Optimisation of the neighbourhood list" with input information including "[l]ocation of the neighbours (distance)," and a discussion of "Handover Optimisation" with input source described as including "[i]n ideal: all measurements can be linked with correct location information." Ex. 1007, 11, 13–14.

3. Independent Claim 1

a) Petitioner's Challenge

For the preamble of claim 1, Petitioner relies on the disclosures in Amirijoo of a system for managing neighbor relation lists involving nodes (*i.e.*, base stations) in different networks such as those conforming to different generations of standards such as 2G (GERAN) and 3G (UTRAN). Pet. 23–26 (citing Ex. 1005, Fig. 1, ¶¶ 13–15, 27, 48, 66–70, 79–82, 110–115; Mahon Decl. ¶¶ 63–65, 73–77).[3] Petitioner notes that Amirijoo refers to updating neighborhood relation lists (NRLs), rather than the neighbour cell lists (NCLs) of claim 1, but argues that it would have been obvious to modify Amirijoo's system to update neighbor cell lists, like those disclosed in 3GPP TR 32.816. Pet. 26–28 (citing Ex. 1005 ¶¶ 15–16, 27; Ex. 1007, 4, 11–12; Mahon Decl. ¶¶ 71–72, 78–82). We do not need to consider this argument at this time, because Patent Owner represents that, "[f]or purposes of this response only, the distinctions between these two lists (NCL and

[3] For this Decision, we make no determination whether or not the preamble of claim 1 is limiting.

NRL) is ignored as they are immaterial to the deficiencies in the asserted grounds explained herein." Prelim. Resp. 19 n. 3.

For the detector requirement of claim 1, Petitioner relies on the disclosure in Amirijoo of mobile stations (the claimed user terminals) and base stations (the wireless access nodes) involved in "inter-RAT/frequency turnover," in which the data processing and control unit (including the inter-RAT/frequency handover function and measurement communication function) of a serving base station makes a handoff decision based on measurements received from mobile stations. Pet. 28–30 (citing Ex. 1005, Figs. 3, 13, ¶¶ 18–20, 50, 74, 77; Mahon Decl. ¶¶ 83–85). Petitioner points out that the inter-RAT/frequency handover function of the serving base station "is invoked when it is determined that a handover is to occur." *Id.* at 30 (citing Ex. 1005 ¶ 77).

For the selector requirement of claim 1, Petitioner relies on the disclosure in Amirijoo that measurements are made "from certain mobile stations chosen using . . . triggering condition(s)" to detect new neighbors. Pet. 30–31 (citing Ex. 1005, Fig. 4, ¶¶ 51, 79; Mahon Decl. ¶¶ 86–93). As discussed in Section III.E.1 above, the triggering conditions include a mobile station having a low data rate, or a mobile station with an estimated signal quality of the serving base station below a given threshold. *Id.* at 32–33 (citing Ex. 1005 ¶¶ 83–89; Mahon Decl. ¶¶ 83–91). In one disclosed embodiment, the base station receives measurements from the mobile station and evaluates the triggering conditions. *Id.* at 31 (citing Ex. 1005, Fig. 4, ¶ 79).

For the request generator requirement of claim 1, Petitioner relies on the disclosure in Amirijoo that, in response to the serving base station

receiving measurements from the mobile stations and evaluating triggering conditions, the data processing and control unit of the serving base station communicates with a mobile station via a base station transceiver to request measurements and information. Pet. 34–35 (citing Ex. 1005, Fig. 3, ¶¶ 76–77; Mahon Decl. ¶¶ 94–98). Requested information from selected mobile stations includes the signal quality of surrounding base stations, and their local IDs and Cell Global Identities (CGIs). *Id.* at 35–37 (citing Ex. 1005, Fig. 4, ¶¶ 6, 80–81; Mahon Decl. ¶¶ 94–98).

For the receiver requirement of claim 1, Petitioner relies on the disclosure in Amirijoo of receivers (the "RX" component of the transceivers) of the serving base station, which receives the measurements and information from the mobile stations. Pet. 38–39 (citing Ex. 1005, Figs. 3, 4, ¶¶ 76. 81, 107–108; Mahon Decl. ¶ 99).

For the updating means requirement of claim 1, Petitioner relies on the disclosure in Amirijoo of updating the neighborhood relation lists (NRLs) in response to measurements received from the mobile stations. Pet. 39–41 (citing Ex. 1005, Fig. 4, ¶¶ 24–25, 28–30, 82, 115; Mahon Decl. ¶¶ 101–105).

b) Patent Owner's Preliminary Response Regarding Independent Claim 1

Patent Owner generally argues that Amirijoo "is directed to a different aspect of the relevant technology — ***when*** user terminals should perform measurements for updating the neighbor cell list — while the '560 Patent claims a novel approach to determining ***which*** user terminals should do so." Prelim. Resp. 6. Patent Owner argues that "Amirijoo does not disclose or

suggest a core feature of the solution of the '560 Patent — enabling the 'tuning' of cell list optimization traffic." *Id.* at 20.

Patent Owner specifically addresses Petitioner's analysis of two of the requirements of claim 1. First, Patent Owner argues that Amirijoo does not teach or suggest the detector requirement of claim 1. Prelim. Resp. 23–26. In particular, Patent Owner argues that "there is nothing in Amirijoo detailing that either the inter-RAT/frequency handover or the measurement communication functions identified by Petitioner actually detect user terminals to be transferred, as required by Claim 1." *Id.* at 25. Patent Owner argues that, in Amirijoo, the measurement communication function of the base station handles communications for requesting or obtaining measurements or information, but that there is no suggestion that it detects that a mobile station requires handover. *Id.* Likewise, argues Patent Owner, while the handover function of the base station performs handover, Amirijoo never states that it detects that a mobile station requires handover. *Id.* at 25–26.

The second claim 1 requirement addressed by Patent Owner is the request generator requirement. Prelim. Resp. 26–30. Patent Owner argues that Petitioner's reliance on the data processing and control unit and transceiver of the serving base station of Amirijoo is flawed because Amirijoo does not disclose that the information sent to the base station by the mobile station is in response to a request from the base station. *Id.* at 27–29. Rather, argues Patent Owner, the mobile station itself evaluates the triggering conditions for reporting information, and if they are met, undertakes the needed measurements without a request from the base station. *Id.* Patent Owner concedes that Amirijoo discloses that the base station

requests the mobile station to transmit Cell Global Identities (CGI) information to the base station, but Patent Owner argues that this request is limited to "only a single candidate base station," whereas claim 1 requires a request to report cell information of a ***plurality*** of wireless access nodes. *Id.* at 29–30.

c) Analysis re Independent Claim 1

Patent Owner's arguments that Amirijoo is directed to ***when*** user terminals should perform measurements rather than determining ***which*** user terminals should do so, and that Amirijoo fails to "enable the 'tuning' of cell list optimization traffic," are not commensurate with the scope of claim 1. Although Amirijoo does disclose ***when*** user terminals make measurements — *i.e.*, during "reading gaps" — it also limits ***which*** terminals perform measurements by imposing triggering conditions that limit the terminals to only those select mobile stations having a low data rate, or those with an estimated signal quality of the serving base station below a given threshold. Ex. 1005 ¶¶ 80, 83–85.

In regard to Patent Owner's argument that Amirijoo does not teach or suggest the detector requirement of claim 1, we determine that Amirijoo sufficiently teaches that limitation for purposes of institution. Amirijoo discloses that, for handovers, the serving base station triggers mobile stations to make measurements, and based on those measurements, makes a handoff decision. Ex. 1005 ¶ 17. If the signal quality of the serving base station measured by a mobile station falls below a set threshold, and the signal quality of a candidate base station measured by that mobile station is above a threshold, then handoff of the mobile station from the serving base station to the candidate base station occurs. *Id.* at Fig. 13, ¶¶ 18–20. The

handover process is performed by the data processing and control units of the base station and mobile station, including the measurement communication function of the serving base station requesting "measurements or information for potential handover purpose" from the mobile station, and the inter-RAT/frequency handover function of the serving base station that "is invoked when it is determined that a handover is to occur." *Id.* at Fig. 3, ¶¶ 75–77. We fail to see how this disclosure does not teach the claim 1 detector requirement of "detecting user terminals [*i.e.*, mobile stations] to be transferred from the first wireless access node of the first wireless access network [*i.e.,* the serving base station] to the second wireless access node of the second wireless access network [*i.e.,* the candidate base station]." Given that the data processing and control unit of the serving base station receives signal quality measurements from the mobile station, and initiates handover when the measurement meets the threshold criteria, it follows that the serving base station performs the required detection.

We also determine that Amirijoo sufficiently teaches the request generator requirement of claim 1 for purposes of institution. Patent Owner's argument that Amirijoo does not teach that the information sent to the serving base station by the mobile station is in response to a request from the base station is undermined at this stage by Amirijoo's disclosure that, as one alternative, the triggering conditions for causing a mobile station to make measurements may be evaluated at the base station. Ex. 1005 ¶ 79. Patent Owner focuses on the ***other*** alternative disclosed in Amirijoo, in which the mobile station evaluates the triggering conditions. Prelim. Resp. 28. But if the serving base station performs the evaluation, the occurrence of a

triggering event must be conveyed from the base station to the mobile station — *i.e.*, a request.

In addition, we are not persuaded by Patent Owner's argument that the admitted requests for Cell Global Identities (CGIs) from the serving base station to the mobile station fail to satisfy the requirement that the requests to report information for a ***plurality*** of nodes. Prelim. Resp. 29–30. Even if each such request is directed to a single node, Amirijoo discloses that mobile stations, once triggered, measure the signal quality of a plurality of nodes — namely, the "surrounding inter-RAT/frequency base stations." Ex. 1005 ¶ 80. If the serving base station has no prior knowledge of the CGI of a particular neighbor base station, a follow-up request for the CGI is made. *Id.* ¶ 81. We understand from this disclosure that a CGI request issues for each newly-discovered neighbor base station. Claim 1 only requires the request generator to issue multiple requests for information of multiple nodes — it does not require that a single request be directed to multiple nodes.

Other than its arguments regarding the detector requirement and the request generator requirement of independent claim 1, Patent Owner does not specifically respond to any other of Petitioner's arguments regarding the requirements of that claim. Nonetheless, the burden remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. To that end, although not raised by the parties, we note that, as discussed above in Section III.D, the requirement in claim 1 of "selecting a part of the user terminals" requires that the selected user terminals must be selected from the set of user terminals that have first been detected as user terminals to be transferred. Amirijoo's selection process does not appear to necessarily

select terminals that have first been detected as user terminals to be transferred. During trial, the parties should address this aspect of claim 1 in more detail.

With that caveat, having reviewed Petitioner's arguments and supporting evidence in this present record, we determine the Petition demonstrates a reasonable likelihood that Petitioner will prevail in establishing that independent claim 1 is unpatentable under 35 U.S.C. § 103(a) over the combination of Amirijoo and 3GPP TR 32.816.

4. Claims 6–8

a) Petitioner's Challenge

Claim 6 depends from claim 1 and additionally requires:

> wherein the request generator is configured for requesting from the first wireless access node one or more of the selected user terminals to report cell information of a plurality of wireless access nodes of the second wireless access network;
>
> wherein the receiver is configured for receiving the cell information of the wireless access nodes of the second wireless access network via the first wireless access node,
>
> further comprising a transfer system configured for transferring user terminals from the first wireless access network to the second wireless access network after receiving the one or more cell parameters of wireless access nodes of the second wireless access network via the first wireless access node.

Ex. 1005, 12:45–59. For claim 6, Petitioner relies on the disclosure in Amirijoo of performing a handoff operation where a user station is transferred from a node in one network to a node in a different network.

Pet. 43–46 (citing Ex. 1005, Fig. 3, ¶¶ 13–14, 50, 75, 77; Mahon Decl. ¶¶ 106–110).

Claim 7 depends from claim 1 and additionally requires, "wherein the telecommunications system is further configured for receiving location information from one or more of the detected user terminals and wherein the location information is used as a selection parameter for selecting the part of the detected user terminals." Ex. 1005, 12:60–65. For claim 7, Petitioner first relies on its proposed construction of "location information" as including "information regarding the cell in which a terminal is operating." Pet. 10, 47. Petitioner argues that the selection of the mobile devices to participate in the process of updating the neighbor relation list is based, in part, on information regarding the cells in which the mobile devices are currently operating. *Id.* at 47–48 (citing Ex. 1005 ¶¶ 6, 83–88; Mahon Decl. ¶ 113).

In the alternative, for claim 7, Petitioner relies on the disclosure in 3GPP TR 32.816 of an algorithm for updating neighbor cell lists using information regarding "location of the neighbors," and a statement that "all measurements can be linked with correct location information" when optimizing handover parameters. Pet. 48 (citing Ex. 1007, 11, 13–14; Mahon Decl. ¶ 114). Based on this, Petitioner argues that it would have been obvious to use location information as a selection parameter for selecting a part of the user terminals in the context of Amirijoo's system, given that Amirijoo teaches that the triggering criteria is intended, "to make sure that an inter-RAT/frequency neighbor is found before the mobile station (MS) falls out of coverage." *Id.* at 48–49 (citing Ex. 1005 ¶87; Mahon Decl. ¶ 115).

Claim 8 depends from claim 1 and additionally requires, "wherein one or more thresholds, possibly service-dependent, are defined in the telecommunications system for transferring the user terminals between the first wireless access network and the second wireless access network and wherein at least one of the thresholds is used as a selection parameter for selecting the part of the detected user terminals." Ex. 1005, 12:66–13:5. For claim 8, Petitioner relies on the disclosure in Amirijoo of a triggering condition for selecting mobile devices to perform measurements in which the measured signal quality of the serving base station falls below the same threshold as is used for handover measurements, and further that the threshold "can depend on the service, subscription type, UE type etc." Pet. 49–51 (citing Ex. 1005, Fig. 6, ¶¶ 79, 85, 87–89; Mahon Decl. ¶¶ 116–118).

b) Patent Owner's Preliminary Response Regarding Claims 7 and 8

For claim 7, Patent Owner argues that none of the triggering conditions (which are the conditions for selecting user terminals to perform measurements) disclosed in Amirijoo involve cell identity (which Petitioner asserts is the claimed location information). Prelim. Resp. 36–37. Patent Owner concedes that each cell has a geographic area and broadcasts its identity, but argues that "Amirijoo never references this information in explaining its triggering conditions." *Id.* at 36. Therefore, argues Patent Owner, Amirijoo does not teach or suggest the subject matter of claim 7, even if Petitioner's construction of "location information" as including cell identity is adopted. *Id.*

For Petitioner's alternative argument, that claim 7 would have been obvious over the combination of Amirijoo and 3GPP TR 32.816, Patent

Owner first argues that the claimed "location information" refers to the location of the user terminal itself. Prelim. Resp. 38. Given that, Patent Owner argues that the references to location in 3GPP TR 32.816 do not relate to using the location of user terminals to select them for measurements. *Id.* at 38–41. At most, argues Patent Owner, 3GPP TR 32.816 would suggest using location information to update the neighbour cell lists, but not using location to select terminals for reporting information. *Id.* at 41–42. Patent Owner challenges Petitioner's proposed motivation for combining Amirijoo and 3GPP TR 32.816, based on the need to prevent a mobile station falling out of coverage, because merely detecting that a mobile station is near a cell boundary does not differentiate whether the station is moving out of the cell, into the cell, or is stationary. *Id.* at 42–43.

For claim 8, Patent Owner argues that the claim 8 requirement of "thresholds . . . for transferring the user terminals between the first wireless access network and the second wireless access network," refers to thresholds for "two-way transfer," meaning that one threshold is defined for transferring the user terminal between the first wireless access network and a second wireless access network, and a different threshold is defined for transferring the user terminal in the opposite direction. *Id.* at 44. Patent Owner refers to the discussion in the '560 patent of asymmetric thresholds, where one threshold initiates transfer in one direction, and a different threshold initiates in the reverse direction. *Id.* at 45–46 (citing Ex. 1001, 5:38–67, 7:65–8:23). Based on this, Patent Owner argues that Amirijoo does not disclose a threshold that is both used for two-way handover and also used to select user terminals for measurements. *Id.* at 47–49. First,

Patent Owner argues that the threshold value that Petitioner relies on is only the threshold for signal quality of the serving base station, not the threshold for actually causing handover, which in Amirijoo is the threshold for signal quality of the candidate base station. *Id.* at 47–48. Second, Patent Owner argues that, even if the serving base station threshold were to be considered the claimed "thresholds . . . for transferring," it at most is a threshold for one-way transfer, not two-way transfer. *Id.* at 48–49.

c) Analysis re Claims 6–8

Patent Owner does not specifically respond to Petitioner's arguments regarding claim 6. Nonetheless, the burden remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. Having reviewed Petitioner's arguments and supporting evidence in this present record, we determine the Petition demonstrates a reasonable likelihood that Petitioner will prevail in establishing that claim 6 is unpatentable under 35 U.S.C. § 103(a) over the combination of Amirijoo and 3GPP TR 32.816.

For claim 7, as discussed in Section III.D above, we do not agree with Petitioner's proposed construction of "location information" as including "information regarding the cell in which a terminal is operating." Moreover, we agree with Patent Owner that, even if the identity of the serving base station were considered to be location information, that information is not used in Amirijoo to select user terminals for measurement. We also agree with Patent Owner that the references to location in 3GPP TR 32.816 are not suggestive of using the location of a user terminal to select it for measurements. As Patent Owner points out, even if the references to location in that reference relate to the actual location of a user terminal,

Petitioner has not sufficiently shown that one of ordinary skill would have been motivated to use the location information to select user terminals for measurements per the requirements of claim 7. At this stage of the proceeding, we are not prepared to determine that Petition demonstrates a reasonable likelihood that Petitioner will prevail in establishing that claim 7 is unpatentable under 35 U.S.C. § 103(a) over the combination of Amirijoo and 3GPP TR 32.816.

For claim 8, we determine that Amirijoo sufficiently teaches the subject matter of that claim for purposes of institution, give that Amirijoo discloses the use of a triggering condition for selecting mobile devices to perform measurements in which the measured signal quality of the serving base station falls below the same threshold as is used for handover measurements. Ex. 1005, Fig. 6, ¶¶ 79, 85, 87–89. We do not agree with Patent Owner's argument that the claim requires thresholds for "two-way transfer." Although one example of the subject matter of claim 8 involves two-way transfer, the claim is not so limited. The claim requires "one or more thresholds," and "at least one of the thresholds is used as a selection parameter." In the case of a single threshold, one-way transfer is a covered example. In addition, we do not agree with Patent Owner's argument that the threshold relied on by Petitioner is only the threshold for signal quality of the serving base station, not the threshold for actually causing handover. The threshold at issue is the threshold causing the mobile terminal to make measurements of the signal quality or neighboring base stations for purpose of initiating handover. Ex. 1005, Fig. 13, ¶¶ 17–20. Claim 8 requires "thresholds . . . for transferring the user terminals between the first wireless access network and the second wireless access network." *Id.* at 12:67–13:3.

The threshold that Petitioner relies on is such a threshold. Accordingly. having reviewed the parties' arguments and evidence in this present record, we determine the Petition demonstrates a reasonable likelihood that Petitioner will prevail in establishing that claim 8 is unpatentable under 35 U.S.C. § 103(a) over the combination of Amirijoo and 3GPP TR 32.816.

IV. CONCLUSION

After considering the evidence and arguments presented in the Petition and the Preliminary Response, Petitioner has established a reasonable likelihood of prevailing on its assertion that at least one claim of the '560 patent is unpatentable. Accordingly, we institute an *inter partes* review on all the challenged claims and all of the grounds presented in the Petition. At this stage of the proceeding, we have not made a final determination as to the patentability of these challenged claims.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that pursuant to 35 U.S.C. § 314, *inter partes* review is instituted as to the challenged claims of the '560 patent with respect to all grounds of unpatentability presented in the Petition; and

FURTHER ORDERED that *inter partes* review is commenced on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

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