

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 No. 8,660,560

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBIT LIST

Exhibit No.	Description
2001	Expert Declaration of Dr. Radostin Pachamanov
2002	Curriculum Vitae of Dr. Radostin Pachamanov
2003	3GPP TS 36.300 V8.9.0 (2009-06), Release 8, June 18, 2009, available at https://www.3gpp.org/ftp/Specs/archive/36_series/36.300/36300-890.zip .
2004	File History of '560 Patent
2005	RESERVED
2006	RESERVED
2007	RESERVED
2008	RESERVED
2009	RESERVED
2010	First Amended Docket Control Order, Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson et al., No. 2:22-CV-282-JRG, Doc. 101 (E.D. Tex. May 24, 2023)
2011	Administrative Office District Court Statistics, March 31, 2023, available at https://www.uscourts.gov/file/71612/download (fcms_na_distprofile0331.2023.pdf)
2012	Docket Navigator Time to Trial, Eastern District of Texas (Jan. 1, 2018-June 9, 2023)
2013	Docket Navigator Time to Trial, Judge Gilstrap (Jan. 1, 2018-June 9, 2023)
2014	Docket Report, Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson et al., No. 2:22-CV-282-JRG, Doc. 101 (E.D. Tex.) (June 8, 2023)

Exhibit No.	Description
2015	Ericsson's P.R. 3-3 Invalidity Contentions (served March 16, 2023) (confidential information redacted)
2016	RESERVED
2017	Unopposed Motion for Issuance of Letter of Request for International Judicial Assistance, Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson et al., No. 2:22-CV-282-JRG, Doc. 99 (E.D. Tex. May 19, 2023)
2018	Plaintiff's First Set of Requests for Admission (served Jan. 19, 2023)
2019	Plaintiff's First Set of Interrogatories (served Jan. 19, 2023)
2020	Defendants' First Set of Interrogatories (served February 3, 2023)
2021	Defendants' Second Set of Interrogatories (served May 15, 2023)

I. Introduction

Petitioner's single asserted ground does not possess all elements of the challenged claims. Petitioner's primary reference (*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. Neither *Amirijoo* nor secondary reference *3GPP TR 32.816*, alone or in combination, disclose or suggest those aspects of independent claim 1 pertaining to detecting, selecting, and requesting only specific user terminals to perform updating measurements. They likewise neither disclose nor suggest using the user terminal's location information (claim 7), or thresholds for transferring user terminals between networks (claim 8) to perform the required selection. The Board should deny the Petition on the merits.

Additionally, the Board should exercise its discretion to deny institution under § 314(a) based on the balance of the *Fintiv* factors. Trial will occur in the parallel litigation almost six months before the projected deadline for final written decision here. Petitioner asserts the same references against the same challenged claims in district court. Despite this complete overlap of issues, Petitioner offers a tepid *Sand Revolution* stipulation that does not prevent an inefficient waste of resources and duplication of effort. Given the balance of the *Fintiv* factors, and Petitioner's failure

to show compelling merits, the Board should exercise its discretion and deny institution.

II. The Board Should Exercise its Discretion to Deny Institution under 35 U.S.C. § 314(a).

This proceeding is redundant and unnecessary to resolve Petitioner’s validity challenges. Exactly the same challenged claims and asserted prior art are at issue in the parallel litigation, which will reach trial almost six months before the projected date of the final written decision. Given the stage of the case at the projected institution deadline and the scheduled trial date, the district court will decide all validity issues before the Board issues a final written decision. Petitioner also refuses to provide a *Sotera* stipulation, confirming its intention to pursue overlapping invalidity challenges in the district court. Institution here will therefore create inefficient duplication of resources—the Board’s, the district court’s, and the parties—as substantially the same arguments will require resolution in both proceedings. Accordingly, the Board should exercise its discretion to deny institution.

Institution of review is discretionary. 35 U.S.C. § 314(a); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016). In *Apple Inc. v. Fintiv Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), the Board discussed potential applications of *NHK Spring Co., Ltd. v. Intri-Plex Techs.*,

Inc., IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential) (“NHK”), as well as a number of other cases on discretionary denial under § 314(a). *Fintiv* identifies a non-exclusive list of factors for determining “whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Fintiv* at 5-6. Those factors include:

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.

Id. Analysis of these factors is guided by the Director’s June 21, 2022 memorandum, “Interim Procedure for Discretionary Denials in AIA Post Grant Proceedings with Parallel District Court Litigation” (“Interim Procedure”), which provides several clarifications to the application of the *Fintiv* factors when there is parallel litigation.

In evaluating the factors, the Board takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review. *Fintiv* at 6. These factors are addressed below.

A. No Evidence of Stay

Factor 1 asks “whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.” *Fintiv* at 6. No motion to stay has been filed and there is no indication from Judge Gilstrap that a stay is likely. Petitioner admits this factor is neutral and does not weigh against discretionary denial. Petition, 12-13.

B. Proximity of Trial to the Final Written Decision

Trial in the parallel litigation is set to start on April 1, 2024. Exhibit 2010 at 1. There is no evidence that this date will change or be postponed, and should therefore be taken at face value. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 13 (PTAB May 13, 2020) (“*Fintiv II*”) (informative); *Samsung Elecs. Co. v. Ancora Techs., Inc.*, IPR2020-01184, Paper 11 at 13 (PTAB Jan. 5, 2021). (“Petitioner fails to provide sufficient evidence to show that the trial date has been changed or will be postponed.”). The statutory deadline for a final written decision in this proceeding, if instituted, is projected to be September 20, 2024, based on the

filing date of this preliminary response. This is almost six months after the scheduled trial.

In addition, recent guidance from Director Vidal directs the Board to “consider the median time from filing to disposition” in the district court. Interim Procedure, 3. The median time in all civil cases from filing to trial in the Eastern District of Texas is only 19 months. Exhibit 2011 at 35. The median time for only patent cases, as well as patent cases before Judge Gilstrap, was even shorter, at only 18 months. Exhibits 2012, 2013. As the case was filed on July 25, 2022 (*see* Exhibit 2014 at 7), using these statistics results in a projected trial in January or February 2024, ***before*** the currently scheduled trial date. There is therefore no reason to expect the scheduled trial date to slip. Accordingly, this factor weighs heavily in favor of discretionary denial. *See Fintiv* II at 13 (finding factor favored denial when the trial would take place only two months before the final written decision).

C. Substantial Investment in the Parallel Proceeding

This factor considers “the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision.” *Fintiv* at 9. The Board considers whether the court in the parallel proceeding will have issued substantive and/or claim construction orders, as well as the status of discovery and scheduled hearings. *Id.* at 9-10, *Fintiv* II at 13-14. This factor “is related to the trial date factor, in that more work completed by the parties and court

in the parallel proceeding tends to support the arguments that the parallel proceeding is more advanced, a stay may be less likely, and instituting would lead to duplicative costs.” *Fintiv* at 10.

This factor supports denial here. The litigation was filed in July 2022. Exhibit 2014 at 7. As of this filing, the parties have exchanged infringement and invalidity contentions, and both sides have collectively served and responded to multiple interrogatories (16) and requests for admission (7). *See* Exhibits 1010, 2015, 2018-2021. Petitioner has also deposed Patent Owner’s Chief Intellectual Property Officer. The parties have collectively produced over 90,000 documents, and Patent Owner has performed several hundred hours of code review. Petitioner has also requested, and the Court has issued, a letter request for international judicial assistance to the judicial authority of the Netherlands, seeking extensive discovery (including individual and corporate depositions and document requests) from a third party. *See* Exhibit 2017; Exhibit 2014 at 14 (ECF 100). By the projected institution deadline, the parties will have completed claim construction briefing, and a *Markman* hearing is scheduled for October 3, 2023, roughly two weeks after the projected institution deadline. *See* Exhibit 2010 at 4.

Based on the level of investment and effort that will have been expended on claim construction briefing, infringement and invalidity contentions, document

production, written discovery, and source code review, this factor weighs in favor of discretionary denial. *See Fintiv II* at 14.

D. Complete Overlap Between Issues

This factor addresses concerns of inefficiency and the possibility of conflicting decisions between the Board and the district court; if the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this factor favors denial. *Fintiv I* at 12; *Fintiv II* at 14-15. Petitioner's invalidity contentions in the litigation include the same references asserted here. Exhibit 2015 at 11. Petitioner challenges all claims asserted by Patent Owner in the district court. *See* Exhibit 1010 at 1; Exhibit 2015 at 1. Thus, nothing will be decided in this proceeding that will not be addressed in the parallel litigation. This complete overlap of issues weighs against institution.

Further, the Interim Procedure states that the PTAB “will not discretionarily deny institution” “where a petitioner stipulates not to pursue in a parallel district court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition.” Interim Procedure at 7 (citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to §II.A)). But here, Petitioner stipulates that “it will not pursue invalidity of the ’560 Patent in district court based *on any instituted IPR grounds*

in this proceeding.”¹ Petition, 13. This falls far short of a *Sotera* stipulation, instead tracking the much narrower stipulation set forth in *Sand Revolution*. *Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 11-12 (PTAB June 16, 2020) (informative). As the Board noted there, Petitioner could have used the broader language subsequently employed in *Sotera*, and therefore fails to “ensure that [the] IPR functions as a true alternative to litigation in relation to grounds that could be at issue in an IPR.” *Id.* at 12 n.5. Nor has Petitioner expressly waived in the district court any overlapping patentability/invalidity defenses. *Id.* Moreover, because Petitioner’s stipulation is limited to the grounds asserted here, it allows Petitioner to maintain invalidity at the district court using the same references it asserts here, as long as it does so in different “grounds”—i.e., by using them with any other of the myriad references asserted in its invalidity contentions. *See* Exhibit 2015 at 11-12 (identifying fifteen other references beyond those asserted here). Thus, this factor at best weighs only “marginally in favor of not exercising discretion to deny institution.” *Sand Revolution*, IPR2019-01393, Paper 24 at 12; *see also Roku, Inc. v. Ioengine, LLC*, IPR2022-01554, Paper 11 at 13-14 (PTAB May 5, 2023).

¹ Unless otherwise noted, all emphasis herein has been added.

E. Petitioner and Defendant are Identical

Petitioner is a party to the Texas litigation. Accordingly, this factor favors exercising discretion to deny institution. *See Samsung Electronics Co. v. Cal. Inst. of Tech.*, IPR2023-00133, Paper 10 at 18 (PTAB May 4, 2023); *Supercell Oy v. Gree, Inc.*, PGR2020-00039, Paper 14 at 18 (PTAB Sept. 14, 2020).

F. There are no Compelling Merits

Where, as here, the balance of the first five *Fintiv* factors favor exercising discretion to deny of institution, the Board considers whether there are compelling merits that would nevertheless justify institution. *See CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 4-5 (PTAB Feb. 27, 2023) (precedential). This is a higher standard than the standard for institution, and requires a determination that the Petition presents challenges “in which the evidence, if unrebutted at trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” *Id.* at 3-4 (citing Interim Procedure at 4). To meet this standard, it must be “highly likely that the petitioner would prevail with respect to at least one challenged claim). *Id.* (citing *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 102 at 49 (PTAB Oct. 4, 2022) (precedential)).

As discussed in Section VI. below, Petitioner's challenges here do not even rise to the lower standard for institution. The Petition thus fails to present compelling evidence of unpatentability, warranting discretionary denial.

G. Holistic Balancing Reflecting Efficiency and Integrity

As shown, Factor 1 is neutral. Factor 2 weighs heavily in favor of discretionary denial. Factors 3 and 5 each weigh in favor of discretionary denial, while Factor 4 weighs marginally in favor of not exercising discretion to deny institution. Petitioner has not submitted a *Sotera* stipulation that would make discretionary denial inappropriate under the Interim Procedure. Likewise, the Petition does not show compelling evidence of unpatentability under factor 6.

Moreover, one more consideration impacts the concerns of efficiency and integrity important when considering discretionary denial. In the parallel district court proceeding, Patent Owner has asserted that Petitioner infringes multiple claims of five patents, including the patent at issue here. Exhibit 1010 at 1. Petitioner has also filed petitions requesting review of the other asserted patents, which are pending under the following case numbers: IPR2023-00524, IPR2023-00525, IPR2023-00581, and IPR2023-00583. In only two of the five total proceedings² has Petitioner offered any stipulation that it will not pursue the same grounds as those raised in the

² Here, and in IPR2023-00583.

underlying litigation. Both stipulations were narrowly crafted under *Sand Revolution* as discussed above. Based on their accorded filing dates, if instituted all these proceedings will reach a final written decision around the same time as this proceeding—that is, around six months after trial. Rather than this series of IPR proceedings that will conclude many months behind the single trial, all of the validity issues presented in those proceedings could be handled sooner and more efficiently in the single trial before the district court. Accordingly, the Board should exercise its discretion to deny the Petition under § 314(a).

III. Technological Background and Improvement over the Prior Art

A. The '560 Patent

Mobile user terminals (e.g., cellular telephones) are always scanning the frequency spectrum for certain signals to determine which cell they should use for transmissions. Exhibit 1001, 1:32-48. The base station for each cell of a wireless access network stores a neighbor cell list (NCL), which it broadcasts within the cell. The NCL, as its name suggests, generally contains a listing of the neighboring cells considered for “reselection” or “handover,” and for which a user terminal connected to the first cell should send measurement reports. *Id.*; Ex. 2001 ¶ 40. Cell reselection and handover refer to the processes for a terminal moving to a new cell when in idle mode and active mode, respectively. Exhibit 1001, 1:32-48, 6:63-7:3; Exhibit 2001 ¶ 41. The measurements on cells on the NCL that are reported by user terminals can

be used by the network to decide whether a mobile terminal should be moved to another cell to help maintain acceptable service. In some cases, a cell may maintain separate lists for neighbors within the same network (an intra-network NCL), and those in cooperating networks (an inter-network NCL). Exhibit 1001, 1:32-48.

Traditionally, populating and optimizing NCLs was done manually (off-line) using various tools, such as predictive optimization algorithms, when a new base station was installed. *Id.*, 1:49-51. These tools were not perfect, and required network operators to perform subsequent testing to determine appropriate handover areas and to update the NCL with the correct list of neighboring cells. Exhibit 1005 [0024]; Exhibit 2001 ¶ 42. This solution was flawed given that networks and conditions affecting signal quality would gradually change, rendering the once-optimized NCL out-of-date. Exhibit 1005 [0024]; Exhibit 2001 ¶ 42.

Thus, at the time of the invention, automated NCL optimization was being investigated. Exhibit 1001, 1:49-55. Automated processes were described in technical specifications of the 3rd Generation Partnership Project (3GPP), a consortium of telecommunications standards organizations. *Id.*, 1:51-58; Exhibit 2001 ¶ 43. Those specifications disclosed an automatic neighbor relation (ANR) function which finds new neighbors and removes outdated neighbors from a neighbor relations table (NRT). Exhibit 1001, 1:51-58; *see also* Exhibit 2001 ¶ 42 (citing Exhibit 2003). Under the ANR function, the base station instructs a user

terminal to look for neighboring cells, and the terminal then provides a physical cell identifier of detected cells to the base station. The base station then instructs the terminal to read and report back the cell global identifier and further cell information from the detected cells. The base station may then update the NRT using the reported information. Exhibit 1001, 1:56-2:7.

The claimed invention improved the state of the art by limiting, in a novel way, the group of user terminals that are requested to search for neighboring cell information. Exhibit 2001 ¶ 44. The invention allows requests for neighboring cell information to be directed to user terminals in the regions where cell reselection and handover are about to occur. Exhibit 1001, 3:37-47. In one embodiment, location information from the user terminals is used as a criterion for selecting the terminals requested to search for neighboring cell information. *Id.*, 5:25-27.

This feature is an improvement over the prior art because it controls or tunes the amount of cell information reporting. *Id.*, 5:11-24. This relates to a trade-off between the measurement overhead (signaling load) and the potential for neighbor cell list optimization. *Id.* For example, if an operator wants to increase NCL optimization, the invention allows for selection of more terminals to report the required information, which increases the signaling those terminals must undertake (having additional effects such as shortened device battery life, etc.). Ex. 2001 ¶ 45. Or, by limiting the number of cells reporting an operator may forgo increased

optimization while achieving the benefit of reduced signaling over the network(s).
Id., 7:44-48.

B. The Asserted Prior Art

The primary asserted reference, U.S. Patent Publication No. 2009/0191862 (Exhibit 1005) (“*Amirijoo*”), is directed to a similar issue as the ’560 Patent. Both *Amirijoo* and the ’560 Patent relate to automatic (versus manual) updating of the neighbor relations list or neighbor cell list.³ Exhibit 1005 [0024]-[0026]. *Amirijoo*’s disclosure applies to handovers not only between different radio access technologies (RATs), but also to handovers in radio access networks using different radio frequencies. For that reason, it refers to “inter-RAT/frequency” to inclusively refer to either. *Id.* [0073]-[0074].

But while the ’560 Patent focuses on ways to lower the measurement and signaling load and radio resource usage imposed on user devices required for automatic list updating (*see* section III.A.), *Amirijoo* targets **how** (and more precisely, **when**) the terminal and base station communicate to update the list. Exhibit 2001 ¶ 48. Thus, *Amirijoo* explains that the mobile station (user terminal)

³ For purposes of this response only, the distinctions between these two lists (NCL and NRL) is ignored as they are immaterial to the deficiencies in the asserted grounds explained herein.

that meets appropriate triggering conditions performs the required measurements of signal quality during “reading gaps.” Exhibit 1005, Abstract, [0080]. The reading gap is a time period in which the mobile station does not receive information from the serving base station. *Id.*, Abstract, [0021], [0032]. In order to perform the required measurements, the mobile station must tune into the frequency it is measuring, and stop listening to the serving base station for the time needed to measure the desired information. *Id.* [0090]. *Amirijoo* details various ways in which the network and mobile terminal may coordinate the reading gap with transmission gaps (when the serving base station is not transmitting to the mobile terminal). *Id.* [0021], [0090]-[0098]. The details of these various proposals are unimportant. What is important is 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. This is shown in regard to the challenged claims in Section VI. below.

Petitioner’s secondary reference, 3GPP TR 32.816 (Exhibit 1007) (“*TR 32.816*”), is a 3GPP technical report, intended to provide a study on reusing, changing, or abandoning UMTS (Universal Mobile Telecommunications System) management standards and practices. Exhibit 2001 ¶ 49. The Petition cites certain references in *TR 32.816* related to input information used when optimizing NCLs and handovers. *Id.* ¶ 50; *see* Section VI.B.

IV. Claim Construction

Petitioner proposes construction for two terms, “updating means . . . using the received cell information” and “location information from . . . the detected user terminals.” Petition, 8-11. Petitioner asserts that no other terms require construction. *Id.* at 7. Patent Owner does not comment on Petitioner’s proposed constructions now, as neither term requires construction to resolve the issues presented.⁴ Further, as shown below, even pursuant to these constructions, Petitioner fails to demonstrate a reasonable likelihood that any challenged claim is unpatentable. *See* Section VI. Patent Owner may identify claim terms and propose constructions should the Board institute trial.

V. Level of Ordinary Skill In The Art

For purposes of this proceeding only, Patent Owner does not dispute Petitioner’s proposed qualifications for a person having ordinary skill in the art

⁴ To the extent the Board determines that claim construction is necessary, Patent Owner notes that Exhibit 1004, which Petitioner identifies as the file history of the U.S. Patent No. 8,660,560 (Petition, v.) appears to instead reflect the prosecution history for U.S. Patent No. 8,660,650, directed to an “Electroencephalogram Activation Apparatus.” *See* Exhibit 1004. Accordingly, Patent Owner includes the ’560 Patent’s file history at Exhibit 2004.

(“POSITA”). Petition, 11. All references to a POSA are made using that definition. Ex-2001 ¶¶ 51-53. This response is supported by the declaration of Dr. Radostin Pachamanov, who is well qualified in the pertinent art. *See id.* ¶¶ 3-7, 52; Exhibit 2002.

VI. The Asserted Ground Does not Render any Challenged Claim Unpatentable

As shown below, neither *Amirijoo* nor *TR 32.816* disclose or suggest, alone or in combination, all limitations of claim 1 or any of its dependents. Exhibit 2001 ¶¶ 56-59. Therefore, Ground 1 does not render any challenged claim unpatentable.

A. Independent Claim 1

Claim 1 requires the following elements, numbered using Petitioner’s scheme:

1[pre] 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:

[1a] 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;

[1b] a selector configured for selecting a part of the user terminals;

[1c] 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;

[1d] a receiver configured for receiving the cell information from the one or more of the selected user terminals;

[1e] 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.

Exhibit 1001, 11:50-12:5.

1. Ground 1 does not disclose a detector configured for detecting user terminals to be transferred – Claim 1[a].

Ground 1 relies solely on *Amirijoo* for element 1[a]. Petition, 28-30. The Petition identifies the serving base station’s “data processing and control unit,” component 36s in Figure 3, as the claimed detector. *Id.* at 30. Figure 3 is annotated below to highlight *Amirijoo*’s purported detector.

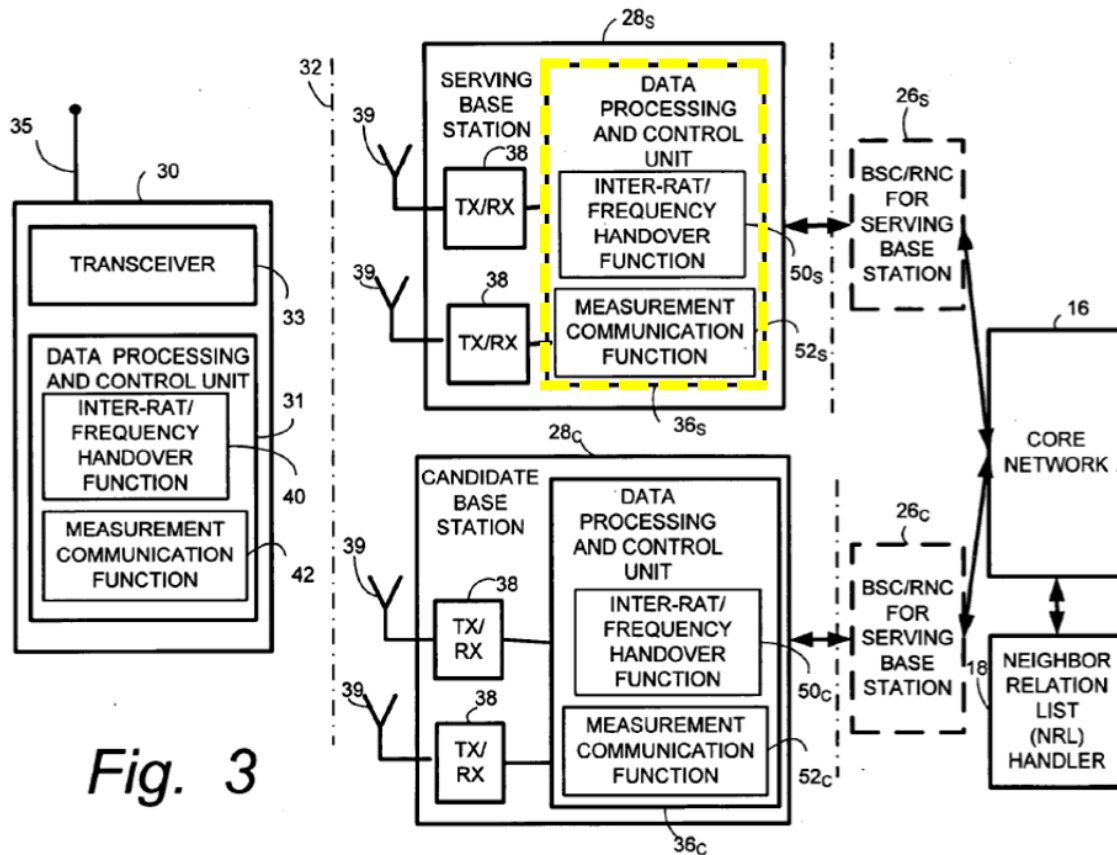


Fig. 3

This identification is based on *Amirijoo*’s teaching that this unit “comprise[s] inter-RAT/frequency handover function 50 and measurement communication function 52.” *Id.* (quoting Exhibit 1005 [0077]). The inter-RAT/frequency handover function 50 “is invoked when it is determined that a handover is to occur.” *Id.* The measurement communication function 52 “controls communications with mobile station (MS) 30 for requesting or obtaining measurements or information (*e.g.*, measurements or information for potential handover purposes).” *Id.*

The ’560 Patent specification teaches that the “detector 10 . . . recognizes that mobile terminal 3 requires a cell reselection or handover to [the second node].”

Exhibit 1001, 7:31-36; Exhibit 2001 ¶ 63. However, 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. Exhibit 2001 ¶ 64.

Amirijoo's measurement communication function controls communications with mobile stations, for requesting or obtaining measurements or information, including for potential handover purposes. Exhibit 1005 [0077]. But controlling communications with mobile stations is different from detecting or recognizing mobile stations that require cell reselection or handover (terminals to be transferred from a first node to a second node). Exhibit 2001 ¶ 64. There is no suggestion in *Amirijoo* that, in controlling communications with mobile stations, this function detects or recognizes those mobile stations that require reselection or handover. *Id.*

The inter-RAT/frequency handover function 50 is not described in *Amirijoo* except to state that it is “invoked when it is determined that a handover is to occur” and that it (as well as the measurement communication function 52) can comprise a controller or processor. Exhibit 1005 [0077]-[0078]. This description indicates that this function is used to **perform** the handover, rather than **detect** that handover is required or about to occur. Exhibit 2001 ¶ 65. *Amirijoo* never states (and Petitioner never argues) that this function recognizes or identifies user terminals requiring

handover. *Id.*; see Petition, 30. Nor does *Amirijoo* identify what performs the function of determining that a handover is to occur. Exhibit 2001 ¶ 65.

Amirijoo teaches that inter-RAT/frequency measurements are initiated when certain triggering conditions are met. Exhibit 1005 [0079]. But the Petition does not map the triggering conditions or their evaluation to the claimed detector or its detecting of user terminals to be transferred. See Petition, 28-30. Rather, Petitioner maps the triggering conditions to the “selector” required by claim 1[b]. Petition, 30-34; see also Section VI.B.1. Therefore, the triggering conditions are not the claimed detector. Exhibit 2001 ¶ 66.

Amirijoo does not teach the claimed detector, which must detect those user terminals requiring cell reselection or handover. Exhibit 2001 ¶¶ 66-67. Accordingly, Ground 1 does not disclose claim element 1[a].

2. Ground 1 does not teach 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 – Claim 1[c].

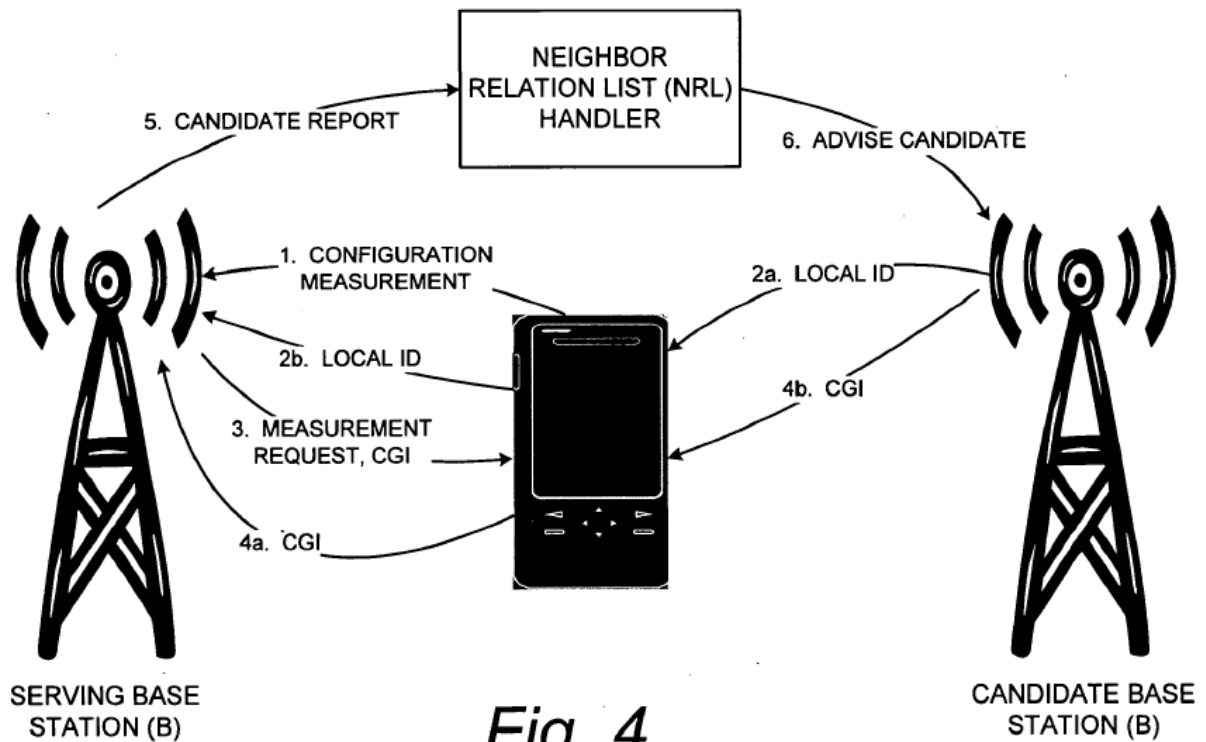
Ground 1 relies on *Amirijoo* as disclosing the request generator required by element 1[c]. Petition, at 34-37. The Petition again identifies the serving base station’s “data processing and control unit,” component 36_s in Figure 3, as the claimed request generator. *Id.*, 34-35. Petitioner points to this unit’s measurement communication function, which controls communications with the mobile station 30

“for *requesting* or obtaining measurements or information . . . for potential handover purposes.” *Id.*, 35 (quoting Exhibit 1005 [0077]) (italics and ellipsis in original). Petitioner identifies the requested cell information as the local IDs and CGIs of candidate base stations reported by those mobile stations that meet *Amirijoo*’s triggering conditions. *Id.*, 35-36, 37 (“*Amirijoo* teaches that the serving base station comprises a request generator configured to request at least two types of cell information—local IDs and CGIs—of candidate base stations . . .”).

But a close reading of *Amirijoo* reveals that it never issues a request for one or more of the selected user terminals to report cell information—including the local ID or CGI—of a plurality of wireless access nodes, as required by the claim. Exhibit 2001 ¶¶ 68-76.

While the base station local IDs are cell information, there is nothing in *Amirijoo* suggesting that they are reported per any *request* from the base station (including the measurement communication function of the data processing and control unit). *Amirijoo* explains that mobile stations measure the signal quality of neighbor base stations, and report the measurement result and local ID to the serving base station, once the triggering conditions are met. Exhibit 1005 [0079]-[0080]. There are two disclosed modes of operation: the triggering conditions may be evaluated (1) at the mobile station, or (2) at the base station. Exhibit 2001 ¶ 70.

When evaluated at the mobile station, the “base station (BS) informs the mobile station (MS) regarding the triggering conditions and the mobile station (MS) evaluates the conditions and starts inter-RAT/frequency measurements once they are triggered.” *Id.* [0079]. Referencing Figure 4 (reproduced below), *Amirijoo* explains that “[i]n the measurement configuration sent from the base station (BS) to the mobile station (MS) (Fig. 4, act (1)), the base station (BS) may include information needed to perform the measurement” *Id.*



Noticeably absent from this description, as well as from the Petition, is any identified *request* to the mobile station to report anything. *See* Petition, 36 (explaining that the mobile station measures and reports, but not identifying any request). Rather, here (in act 1) the mobile station itself evaluates the triggering conditions, and if they are met, undertakes the needed measurements. Exhibit 1005 [0079]-[0080]. Any mobile station where the triggering conditions are satisfied will thus start the measurements without a request from the base station. Exhibit 2001 ¶¶ 71-72. At best, *Amirijoo* discloses that the base station provides the mobile station with information that it may need to perform measurements, which is not a request. *Id.*; Exhibit 1005 [0079].

When the base station evaluates the triggering conditions, *Amirijoo* discloses only that the “base station (BS) *receives* measurements from the mobile station (MS) and evaluates the triggering conditions.” *Id.* [0079]. This is *Amirijoo*’s only disclosure relating to this embodiment. *Id.* There is no reference to any request that a user terminal (much less a “selected” user terminal) report the local IDs of the surrounding base stations. *See id.*; Exhibit 2001 ¶ 73.

As for the CGI information, *Amirijoo* indeed states that “the serving base station (BS) may send a CGI measurement request to the mobile station (MS), as illustrated by act (3) in Fig. 4.” Exhibit 1005 [0081]. This request is sent only when the serving base station, after receiving the local ID from the mobile station (Fig. 4,

act 2b.), determines that it has no prior knowledge of a neighboring base station. *Id.* [0080]-[0081]. The request is then sent (Fig. 4, act 3) to that reporting mobile station, which “measures the Cell Global Identity (CGI) of the candidate base station (BS).” *Id.* This is therefore a request to the mobile station that sent the unknown base station local ID that it provide the CGI of only a single candidate base station—specifically, the one having the previously unknown local ID. Exhibit 2001 ¶ 74.

This request does not meet the requirements of element 1[c], which requires “a request generator configured for requesting . . . one or more of the selected user terminals to report cell information *of a plurality of wireless access nodes*” Exhibit 1001, 11:63-67. The claim requires a request to report cell information of a plurality of wireless access nodes, but the “Measurement Request, CGI” of *Amirijoo* relates only to a *single* wireless access node, the one that is unknown to the serving base station. *See* Exhibit 1005 [0081]; Exhibit 2001 ¶ 75. Accordingly, the CGI measurement request does not satisfy claim 1[c].

Because *Amirijoo* does not disclose the required request generator of claim 1[c], and because Ground 1 relies solely on *Amirijoo* to do so, Ground 1 cannot render claim 1 or any of its dependent claims unpatentable.

B. Claim 7

Claim 7 further limits claim 1 with regard to the “selector” of claim 1[b]. Claim 1[b] requires “a selector configured for selecting a part of the user terminals,”

while Claim 7 further requires “receiving location information from one or more of the detected user terminals, . . . wherein the location information is used as a selection parameter for selecting the part of the detected user terminals.” Exhibit 1001, 12:60-65.

Petitioner asserts Ground 1 against Claim 7 in two ways. First—relying on its proposed claim construction that the cell identity where the user terminal is operating is “location information”—Petitioner asserts that *Amirijoo* alone “discloses selecting a part of the mobile devices to participate in the process of updating the neighbor relation list based, at least in part, on [the current cell identity].” Petition, 47-48 (citing Exhibit 1005, [0083]-[0088]). Second, Petitioner relies on certain references to location in *TR 32.816* as suggesting the use of location “as an input to update the neighbor cell list.” *Id.*, 48-49. According to Petitioner, based on these suggestions a POSITA would have considered it obvious “to use location information as a selection parameter for selecting a part of the user terminals in the context of *Amirijoo*’s system.” *Id.* As shown below, neither *Amirijoo* nor *TR 32.816* teach or suggest, alone or in combination, using the location information of the user terminals as a parameter for selecting the part of the detected user terminals. Exhibit 2001 ¶¶ 79-103.

1. *Amirijoo* does not teach using cell identity for selecting the part of the detected user terminals.

Petitioner first asserts that *Amirijoo* teaches using location information, in the form of cell identity, as a parameter for selecting a part of the mobile devices to participate in the process of updating the neighbor relation list, citing specifically to *Amirijoo*'s discussion of triggering conditions. Petition, 48 (citing Exhibit 1005 [0083]-[0088]). Petitioner also maps these triggering conditions to the selector of claim 1[b]. Petition, 33-34. That is, Petitioner asserts that cell identity is one of *Amirijoo*'s triggering conditions. As shown below, this is not the case.

a. *Amirijoo*'s triggering conditions

Amirijoo teaches that "[i]nter-RAT/frequency measurements from certain mobile stations chosen using the triggering condition(s) described in Section 2.0⁵ are used to detect new inter-RAT/frequency neighbors, as illustrated in FIG. 4, act (1)." Exhibit 1005 [0079]. Thus, once these conditions are triggered, a mobile station measures the signal quality of surrounding base stations and reports them to the serving base station. *Id.* [0080].

In its analysis of claim 1[b], Petitioner asserts that *Amirijoo* discloses three triggering conditions: (1) "the amount of data being consumed by the mobile

⁵ Section 2.0 of *Amirijoo* corresponds to paragraphs [0083]-[0089].

devices,” (2) “the quality of the connection between the mobile devices and the serving base station” and (3) “characteristics of the subscriber or the mobile device itself.” *See* Petition, 34 (citing Exhibit 1005 [0084]-[0086], [0089]); Exhibit 2001 ¶ 82.

In *Amirijoo*, the first triggering condition is a data rate. Exhibit 1005 [0084]. The data rate depends on the services that the mobile station is using. For example, if a mobile station is streaming video, it may be using a higher data rate than a mobile station that is not. *Id.* [0086]; Exhibit 2001 ¶ 84. *Amirijoo* explains that there will be a greater effect on service for mobile stations having higher data rates when those mobile stations are also performing inter-RAT/frequency measurements. Exhibit 1005 [0086]. “As such, mobile stations with a low average number of scheduled scheduling blocks (SBs) [a measure of data rate] should perform inter-RAT/frequency measurements.” *Id.* Thus, this triggering condition is some data rate (“a low average number of scheduled scheduling blocks”); if a mobile station has a lower data rate than the set rate, it will meet the triggering condition. *Id.*; Exhibit 2001 ¶ 84.

The second triggering condition is a threshold estimated signal quality. Exhibit 1005 [0085]. This threshold is explained with reference to Figure 6, which shows “that an inter-RAT/frequency measurement threshold may be set higher than the corresponding handover [HO] threshold”:

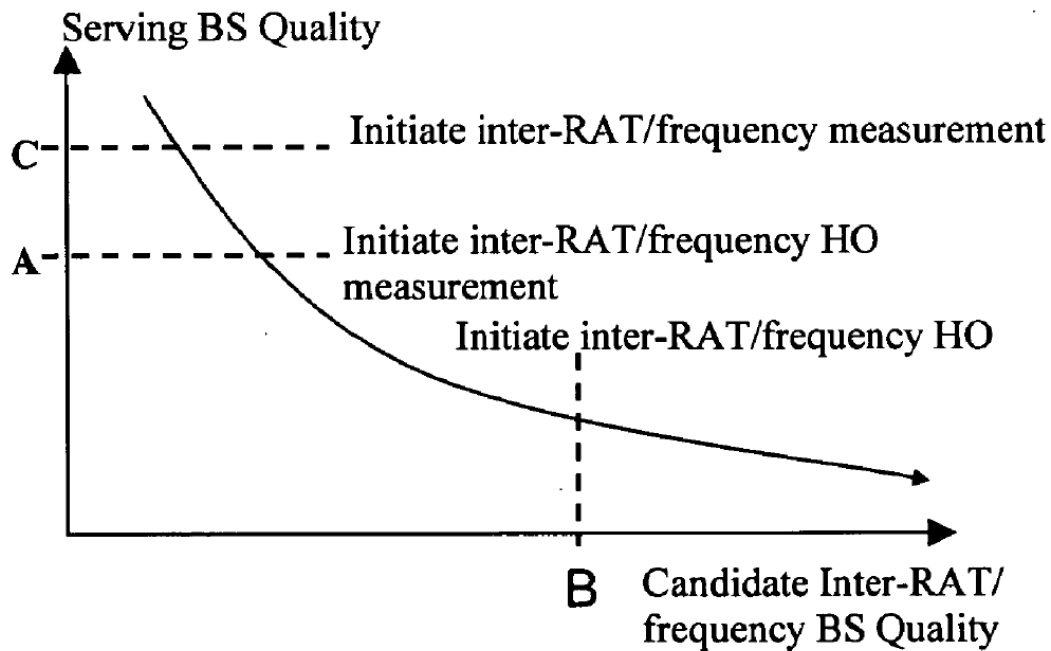


Fig. 6

Id. [0053], [0085], Fig. 6. *Amirijoo* explains that this threshold can either (1) “be the same threshold as used for inter-RAT/frequency handover measurements (e.g., threshold A in Fig. 6)” or (2) “it can be set higher than the handover threshold (e.g., higher than threshold A of Fig. 6, such as threshold C in Fig. 6)) to make sure that an inter-RAT/frequency neighbor is found before the mobile station (MS) falls out of coverage.” *Id.* [0087].

As discussed above, Petitioner references a third triggering condition as well, asserting that it “selects a part of the mobile devices based, at least in part, on characteristics of the subscriber or the mobile device itself.” Petition, 34 (citing Exhibit 1005 [0089]). It is more accurate to say that the so-called third triggering

condition is merely a type of the second triggering condition, as it also uses a threshold estimated signal quality, but based on such characteristics such as “service, subscription type, [user equipment] type etc.” Exhibit 1005 [0089]; Exhibit 2001 ¶ 86. Therefore, depending on the service, subscription type, or device type, *Amirijoo* teaches assigning a different signal quality threshold, above the “A” threshold, to trigger reporting. Exhibit 1005 [0089]. Accordingly, a “Gold subscription” user may be assigned a “lower threshold C *than ordinary subscription users*.” *Id.* For example, referencing Figure 6, ordinary subscription users may be assigned the “C” threshold, while “Gold subscription” users would be assigned a lower “C” threshold (but never lower than the “A” threshold). Exhibit 2001 ¶ 86; Exhibit 1005 [0085], [0087]-[0089]. Yet using a lower threshold means that the “Gold subscription” mobile station will *not* meet the triggering conditions for performing the inter-RAT/frequency measurements set for ordinary users, thereby allowing the “Gold subscription” devices to *avoid* conducting the measurements (which as *Amirijoo* explains, may impair service), at least until the signal quality reaches the lower “Gold” threshold. *Id.* [0087], [0089]; Exhibit 2001 ¶ 86. Contrary to Petitioner’s assertion, *Amirijoo* does not teach choosing the devices of “Gold subscription users” to conduct the inter-RAT/frequency measurements, it rather teaches preferentially *not* using those devices, so as to avoid placing the measurement burden on them. Exhibit 2001 ¶ 86.

b. Cell identity is not included as one of *Amirijoo*'s triggering conditions.

As shown above, none of *Amirijoo*'s triggering conditions include cell identity, nor does *Amirijoo* ever disclose or suggest using cell identity as part of the triggering conditions. Exhibit 2001 ¶ 88. *Amirijoo* does teach that a cell is a geographical area, and that the identity of each cell is broadcast in the cell. Exhibit 1005 [0006]. But *Amirijoo* never references this information in explaining its triggering conditions, much less explain or provide any detail about how such information is used to distinguish between mobile stations that meet the conditions and those that do not. Exhibit 2001 ¶ 88. Rather, as discussed, the triggering conditions are based on data rates and estimated signal quality of the serving base station. Neither of these is the broadcast cell identity, which is not referenced. *See* Exhibit 1005 [0083]-[0088].

Simply put, nothing in *Amirijoo* suggests that the specific cell that a user terminal is connected to is considered a parameter for selecting devices to perform inter-RAT/frequency measurements. Exhibit 2001 ¶¶ 87-89. Rather, any terminal reporting to a base station, upon meeting the triggering conditions, will start measuring and reporting the signals from neighboring cells. *Id.* ¶ 88. There is no disclosure or even a suggestion in *Amirijoo* that specific terminals may be selected and requested to perform measurements on neighboring cells based on the cell identity. *Id.* Therefore, even adopting Petitioner's construction of "location

information” as including cell identity, Amirijoo does not disclose or suggest using that cell identity as a selection parameter for selecting the part of the detected user terminals. *Id.* ¶ 89.

2. The combination of *Amirijoo* and *3GPP TR 32.816* does not disclose or suggest using location information as a selection parameter.

Petitioner’s second argument is made only to the extent the Board does not construe “location information” to encompass the cell identity. Petition, 48. As shown above, under that construction Ground 1 does not teach or suggest the elements of claim 7. It is therefore not clear that Petitioner’s second argument even requires consideration.

To the extent it does, the argument relies on certain references in *TR 32.816* as suggesting the use of location “as an input to update the neighbor cell list.” Petition, 48-49. Based on these suggestions, Petitioner asserts that a POSITA would have considered it obvious “to use location information as a selection parameter for selecting a part of the user terminals in the context of Amirijoo’s system.” *Id.*

Before addressing Petitioner’s assertions, the “location information” referenced in Claim 7 should be clarified. The specification teaches that:

One embodiment of tuning the amount of cell list optimization traffic is to use the location information from the user terminals as a selection criterion as defined in Claim 7. The location information may e.g. be obtained from a GPS module in the user

terminal or by means of measurements using the first and/or the second wireless access network.

Exhibit 1001, 5:25-30; *see also id.*, 9:54-62 (explaining that the mobile terminal 3 may transmit “other information” which may comprise “location information *of the mobile terminal 3*,” which is “obtained using GPS module 25”). Therefore, “location information” in Claim 7 refers to the location of the user terminal itself, which is sent from the user terminal (which obtains it, for example, from a GPS module located in the user terminal). Exhibit 2001 ¶ 91.

Turning now to *TR 32.816*, Petitioner’s arguments fail for several reasons. The Petition cites two uses of “location” within the reference. Yet neither discloses or suggest that the location of the user terminals should be collected before performing measurements, and then used as a parameter to select certain terminals to perform the measurements, as required by claim 7. Exhibit 2001 ¶¶ 92-99.

Petitioner first cites to a proposed algorithm for updating neighbor cell lists using information about “location of the neighbours.” Petition, 48 (citing Exhibit 1007, 11). The actual passage from *TR 32.816* is reproduced and highlighted below:

Scenario description: Neighbour cell list optimisation

- Objective: Optimisation of neighbour cell list of self-configuration instance
- Scheduling: On demand or periodic
- Input information (all input optional depending on algorithm):
 - Location of the neighbours (distance),
 - UE measurement reporting or eNodeB radio scanning for neighbours,
 - Field strength information,
 - Event measurements like cell specific call drops or handover failures
 - NMS/EMS configuration data
 - Planning tool data
 -

Exhibit 1007, 11. But the “location of the neighbors (distance),” would be understood by a POSITA to reference the location of neighboring cells (or base stations) and respectively the distance to those neighboring cells/base stations, not the location of the user terminal. Exhibit 2001 ¶¶ 94-95. Nor is there any indication that this information is even known by the user terminals, or reported to the base station/telecommunications system. *See* Exhibit 1007 at 11; Exhibit 2001 ¶ 94 (explaining that a POSITA would not understand user equipment to have such information).

Petitioner next relies on a reference to linking “all measurements” with “correct location information” when optimizing handover parameters such as the neighbor list. Petition, 48; Exhibit 1007, 13-14. The precise passage is highlighted in context below.

Scenario description: Optimisation of handover parameter like HO neighbour list, neighbour specific thresholds, margins and hysteresis parameter

- Objective: Description of procedures to optimise a certain HO parameter
- Scheduling: triggered either by network problems related to this parameter or on demand

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- Input source (input optional depending on algorithm):
 - HO trigger reasons
 - KPIs: cell and neighbour specific HO success/failure rate, cell and neighbour specific Path Loss, Received signal strength and interference measurements before HO events
 - In ideal: all measurements can be linked with correct location information
 - Planning data like maps, location of cells, theoretical path loss/interference
 - Drive test results in proprietary/standardised form
 - Traces of interfaces (like Abis, Iub, Iu, A)

Exhibit 1007, 13-14. Again, while this reference is in the context of a procedure to optimize handover parameters, there is no indication that the listed input sources comprise information known by user terminals that could be reported as required by claim 7. *See id.*; Exhibit 2001 ¶ 97. In fact, the optimization procedure appears to be a manual one, as it also references “drive test results,” and “[p]lanning data like maps, location of cells, theoretical path loss/interference.” Exhibit 1007 at 14; Exhibit 2001 ¶ 97. This is the prior art process which the ’560 Patent improves upon. *See* Section III.A.

However, if the “correct location information” is assumed to be the location of the user terminal, this passage merely suggests *linking* the location where data was collected to reported measurement data. Ex. 2001 ¶ 98. But this is different from claim 7. There is nothing disclosing or suggesting (in either *TR 32.816* or *Amirijoo*) further using the user terminal location as a criterion for actually “selecting the part of the detected user terminals” to participate in the updating process, as claim 7 requires. *Id.* In other words, there is nothing here suggesting that the location of the user terminals should be collected before performing measurements, and then used as a selection parameter to select some part of the user terminals to perform measurements. *Id.* ¶ 99.

Therefore, none of these instances of “location information” satisfy the claim limitation. As neither *Amirijoo* or *TR 32.816* independently disclose the use of the user terminal’s location to decide or select which terminals perform measurements and report them back to the network, the combination of the two necessarily fails to disclose it, regardless of any motivation to combine the two references.

Petitioner’s obviousness analysis is also flawed. Petitioner argues that *TR 32.816* suggests using “location information as an input to update the neighbor cell list,” and therefore “it would have been obvious for a POSITA to use location information as a selection parameter for selecting a part of the user terminals in the context of *Amirijoo*’s system.” Petition, 48. This is a clear jump in logic. At best, a

POSITA would understand these references to location to conclude that location information can be used to optimize neighbor cell lists. Exhibit 2001 ¶ 100. That is, a POSITA would be motivated to include neighbor location as an input to determine whether to include the neighbor in the NCL. *Id.* (citing Exhibit 1007 at 11). But this is simply different from using the user terminal’s location as a parameter for determining whether to select the terminal to even report neighboring cell information. *Id.*

Petitioner contrives a motivation for such a selection, asserting that “[a] skilled artisan would know that selecting a subset of mobile devices based on their location information would help ensure that an inter-RAT/frequency neighbor is found before the mobile station (MS) falls out of coverage.” Petition, 49. This is clearly hindsight-driven analysis. Nothing in *Amirijoo* or *TR 32.816* references selecting only a “subset” of mobile devices based on their location information to perform measurements. Exhibit 2001 ¶ 101. This idea comes from the claim, which requires “selecting the part of the detected user terminals.” *Id.*

Nor does this asserted motivation hold up to logical scrutiny. Petitioner tries to tie device location to coverage by referencing “mobile devices close to the coverage boundary.” Petition at 49. But a device’s physical location near a “coverage boundary” does not determine whether it would require cell reselection or handover, as not all such devices are necessarily moving out of coverage or have poor signal

quality. Exhibit 2001 ¶ 101. Some such devices may be stationary, while others may be moving further *into* coverage. *Id.* A POSITA therefore understood that such location information does not suggest the user terminal would fall out of coverage. *Id.*

Further, Petitioner’s motivation to combine is based on *Amirijoo*’s expressed desire to “make sure that an inter-RAT/frequency neighbor is found before the mobile station (MS) falls out of coverage.” Petition, 49. But *Amirijoo* ensures this by setting a signal quality triggering threshold higher than the threshold for handover measurements (“A” in Fig. 6). Exhibit 1005 [0087]; Exhibit 2001 ¶ 102. *Amirijoo* thus uses the serving base station signal quality—which is the sole determining factor for coverage—to find a neighbor before the mobile station falls out of coverage. Exhibit 2001 ¶ 102. Using Petitioner’s logic, location information is merely a substitute or secondary indicator of coverage (signal quality). *Id.* It simply makes no sense for a POSITA to modify *Amirijoo* to use a *substitute* indication of coverage (the device’s location), when *Amirijoo* already teaches using the signal quality itself to make sure that a neighbor is found before the mobile station falls out of coverage. Exhibit 2001 ¶ 102.

Accordingly, nothing in *TR 32.816* discloses or suggests using the location of the user terminals (the claimed location information) as a selection parameter for selecting the part of the detected user terminals, nor was it obvious to use that

location information with Amirijoo’s triggering conditions. Exhibit 2001 ¶ 103. Accordingly, Ground 1 does not possess or render obvious the limitations of claim 7.

C. Claim 8

The system of claim 1 detects 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,” and then selects a part of the user terminals. Exhibit 1001, 11:57-62. The claim specifies detection of terminals to be transferred *from* a first network *to* a second network—a one-way transfer. Exhibit 2001 ¶ 104. Claim 8 further limits claim 1 by specifying criteria to be used for selecting the part of the detected user terminals, specifically, at least “one or more thresholds, possibly service-dependent” that are defined “for transferring the user terminals *between* the first wireless access network and the second wireless access network.” Exhibit 1001, 12:66-13:5. That is, this threshold (or thresholds) are those set for initiating cell reselection or handover from each network to the other—a two-way transfer, not merely the one-way transfer of Claim 1. Exhibit 2001 ¶ 104.

As stated in the specification, “[t]he transfer threshold determines at what level (typically involving pilot signal measurements) cell reselection or handover would occur.” Exhibit 1001, 5:41-44. Although not called out specifically for the first network (the “Serving BS Quality” on the y-axis), in Amirijoo’s Figure 6

(reproduced below) this threshold corresponds to the “B” threshold for initiating the inter-RAT/frequency handover. Exhibit 2001 ¶ 105; Exhibit 1005 Fig. 6.

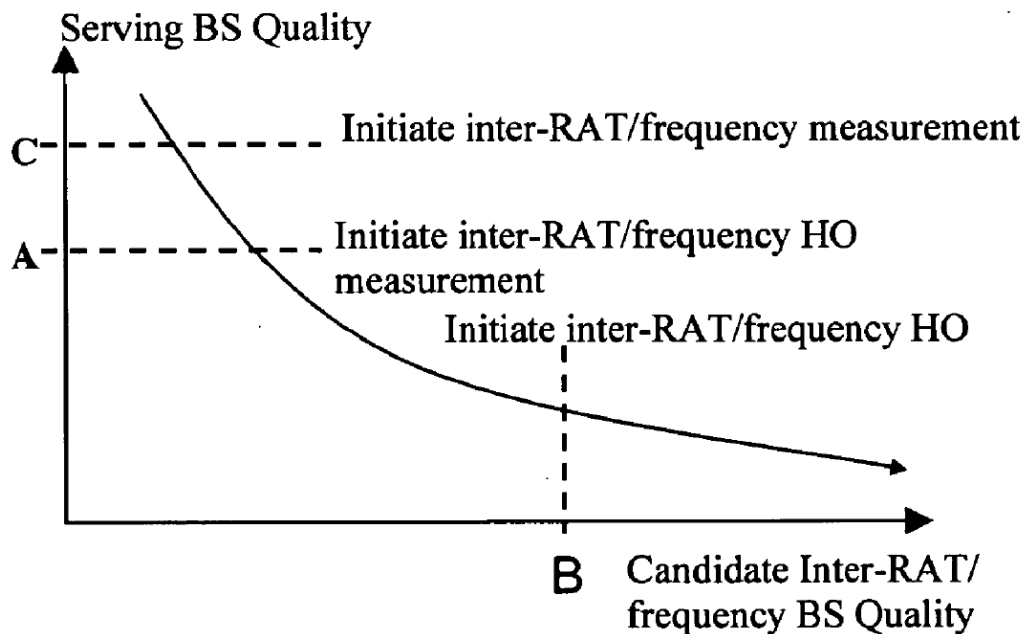


Fig. 6

As stated in the '560 Patent's specification, the transfer threshold *between* networks may be different, or asymmetric, depending on whether a user terminal is moving from the first network to the second, or from the second network to the first:

Another advantageous selection criterion for determining which user terminals should report cell information is the transfer threshold that may have been set by the operator(s) of the telecommunication system, as defined in claim 8. . . . The transfer threshold for cell reselection or handover from the first wireless access network to the second wireless access network may be asymmetric (i.e. a different transfer threshold Th2 applies for a transfer from the second to the first wireless access network) and

may also be dependent on the service type of the service received by the user terminal when connected to the first wireless access node.

Exhibit 1001, 5:38-50; *see also* 7:65-8:11. The specification elaborates on why the thresholds might be asymmetric:

As an example, a user terminal provided with a voice service by a cell of an LTE network that is handed over to a GSM network might not be handed over back to the LTE network. This is because the operator chooses this mode of operation. In such a case, although this user terminal is a detected user terminal in the sense that it is about to be transferred to the second wireless access network (GSM), it is not selected for reporting requested to report [sic] cell information of the plurality of wireless access nodes of the first wireless access network (the LTE network), since the handover in the direction back to the first network (the LTE network) will generally not be made. On the other hand, for a user terminal using a data service that is temporarily handed over from an LTE network to a GSM network, a handover back to the LTE network is generally preferred and such user terminals can be selected to report cell information of the plurality of wireless access nodes of the second network.

Id., 5:50-67; *see also id.*, 8:12-23.

Accordingly, the patented system may consider the different transfer thresholds in determining which detected terminals are selected for providing cell information. Using the above framework as an example, when the LTE network

detects a user terminal about to be transferred to the GSM network (transfer from LTE to GSM), it may use the reverse transfer threshold—GSM to LTE—as a parameter to decide whether to select that user terminal to provide relevant information. Exhibit 2001 ¶¶ 106-108.

Petitioner asserts that *Amirijoo*'s triggering conditions, which include as a minimum the threshold used for handover measurements (threshold A in Fig. 6), are used to select the part of the detected user terminals, based on the same analysis as element 1[b]. Petition, 50 (citing § X(B)(1)(c), which relates to element 1[b]). But *Amirijoo* never discloses considering the threshold(s), required by claim 8, for transferring *between* networks. Exhibit 2001 ¶¶ 109-110; Exhibit 1005 [0083]-[0089]. That is, *Amirijoo* only teaches using a threshold of estimated signal quality of the serving base station—the y-axis of Figure 6. Exhibit 2001 ¶ 110; Exhibit 1005 [0085], [0087-88]. This is not disclosed in *Amirijoo* as the threshold for transferring either from the serving base station to the candidate base station (a one-way transfer threshold), or from the candidate base station to the serving base station (a two-way transfer threshold). Exhibit 2001 ¶ 110; *see* Exhibit 1005.

As mentioned, the threshold for transferring from the serving base station to the candidate base station in *Amirijoo* appears to be shown as “B” on the x-axis in Fig. 6. Exhibit 2001 ¶ 111. This is the only possible candidate referenced in *Amirijoo* for the threshold for transferring from the first network to the second network

(serving BS to candidate BS). *Id.* Assuming that the “B” threshold is the threshold for a one-way transfer, *Amirijoo* never discloses that it is used for “selecting the part of the detected user terminals” to perform the required measurements. Exhibit 1005 [0083]-[0089]; Exhibit 2001 ¶ 111. Even Petitioner does not argue this, as it has identified only the “A” and “C” thresholds in Figure 6. *See* Petition, 50-51. As stated in *Amirijoo*, the minimum threshold used for this purpose is the “A” threshold. Exhibit 1005 [0087] (“The threshold used in criteria b) can *either* be the *same threshold* as is used for inter-RAT/frequency handover measurements (e.g., *threshold A* in Fig. 6), *or* it can be *set higher* . . . (e.g., *higher than threshold “A”* of Fig. 6”); Exhibit 2001 ¶ 111.

Further, even if *Amirijoo* disclosed using threshold “B” as a parameter for “selecting the part of the detected user terminals,” (which it does not) this would still not meet claim 8. This is because this threshold, as discussed, is at most the threshold for a one-way transfer. Exhibit 2001 ¶ 112. Claim 8 requires using threshold(s) for transferring *between* networks, a two-way transfer threshold, not a threshold for a one-way transfer. *Id.* But *Amirijoo* does not teach or suggest that the same “B” threshold is used for transferring mobile stations back from the candidate base station to the serving base station (which would make it a symmetric threshold for transferring between networks). Nor does *Amirijoo* disclose another, differing threshold for doing so (an asymmetric threshold). *Id.* In fact, *Amirijoo* never

discusses a threshold for transferring *between* networks at all, much less using such a threshold or thresholds to select the part of user terminals detected to be transferred.

Id.

Accordingly, Ground 1 does not disclose the use of a threshold for transferring user terminals between wireless access nodes as a selection parameter, as required by Claim 8.

VII. Conclusion

Petitioner has not carried its burden of demonstrating that there is a reasonable likelihood that any challenged claims is unpatentable. The Board is also warranted in exercising its discretion to deny institution under § 314(a) based on the weight of the *Fintiv* factors. Accordingly, the Board should deny institution.

Dated: June 20, 2023

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

The undersigned certifies that this document complies with the type-volume limitations set forth in 37 C.F.R. § 42.24 *et seq.* This document, excluding those portions excluded pursuant to § 42.24(a)(1), contains 9,186 words as calculated by the program used in creating it.

/James H. Hall/

James H. Hall

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e)(4), the undersigned certifies that on June 20, 2023, copies of Patent Owner's Preliminary Response and Exhibits 2001-2004, 2010-2015, and 2017-2021 were served via email on the following attorneys of record at the below email address, at which Petitioner has consented to email service pursuant to its current Mandatory Notices (Paper 1 at 1):

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