

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AT&T MOBILITY LLC, AT&T SERVICES INC., ERICSSON INC.,
NOKIA OF AMERICA CORPORATION, AND T-MOBILE USA, INC.,
PETITIONERS,

v.

DAINGEAN TECHNOLOGIES LTD.,
PATENT OWNER.

CASE IPR2024-00402
PATENT 10,841,958

PATENT OWNER'S REVISED NON-CONTINGENT MOTION TO AMEND¹
37 C.F.R. § 42.121(f)

¹ Per § 42.121(a), Patent Owner conferred with the Board on September 26, 2024, prior to filing this motion. *See* Order re Conduct of Proceeding (Paper 19).

TABLE OF CONTENTS

TABLE OF AUTHORITIES	ii
CURRENT EXHIBIT LIST	iii
I. INTRODUCTION.....	1
II. PROPOSAL MEETS REQUIREMENTS FOR AMENDMENT	2
A. Patent Owner Proposes a Reasonable Number of Substitute Claims	2
B. Proposed Substitutes Do Not Enlarge the Scope of the Claims	2
1. The Substitutes Contain No Broadening Deletions	2
2. The Revised Substitutes Only Have Further Limiting Amendments.....	2
C. There Is Written Description Support for Each Substitute Claim.....	9
D. Proposed Amendments Respond to a Ground of Unpatentability Involved in the Trial	10
III. CLAIM CONSTRUCTION	11
A. Second Type System Information Blocks (“SIBs”).....	11
B. Compressed Format	14
C. Parameters.....	14
IV. SUBSTITUTE CLAIMS ARE PATENTABLE.....	15
1. Lee and Agiwal	16
2. Brismar	17
V. INFORMATION OF WHICH THE PATENT OWNER IS AWARE THAT IS MATERIAL TO THE PATENTABILITY OF SUBSTITUTE CLAIMS, IF SUCH INFORMATION IS NOT ALREADY OF RECORD IN THE CASE.....	20
VI. CONCLUSION	21
APPENDIX A —PROPOSED SUBSTITUTE CLAIM LISTING.....	A-1

TABLE OF AUTHORITIES**Cases**

<i>Ethicon LLC. v. Intuitive Surgical, Inc.</i> , 847 Fed. Appx. 901 (Fed. Cir. 2021)	12
<i>Gillette Co. v. Energizer Holdings, Inc.</i> , 405 F.3d 1367 (Fed. Cir. 2005)	6
<i>In re Aqua Prods., Inc.</i> , 872 F.3d 1290 (Fed. Cir. 2017)	15
<i>Lectrosonics, Inc. v. Zaxcom, Inc.</i> , IPR2018-01129-15 (PTAB Feb. 25, 2019) (precedential)	20
<i>Nautilus, Inc. v. Biosig Instruments, Inc.</i> , 572 U.S. 898 (2014)	11
<i>Regeneron Pharms., Inc. v. Merus NV</i> , 864 F. 3d 1343 (Fed. Cir. 2017)	6

Rules

37 C.F.R. § 42.121(a)(3)	2
37 C.F.R. § 42.121(d)(2)	15
37 C.F.R. § 42.121(d)(2)	15

CURRENT EXHIBIT LIST

No.	Brief Description
1001	U.S. Pat. No. 10,841,958 (“’958 Patent”)
1002	Expert Declaration of Dr. Wayne Stark
1003	Curriculum Vitae of Dr. Wayne Stark
1004	U.S. Pat. Publication No. 2019/0158988 (“Lee”)
1005	U.S. Pat. Publication No. 2015/0382284 (“Brismar”)
1006	U.S. Provisional Patent Application No. 62/334,418 (“Lee Provisional”)
1007	16/597,325 Application that issued as ’958 Patent (“’325 App.”) File History
1008	U.S. Pat. Publication No. 2017/0251500 (“Agiwal”)
1009	Provisional Patent Application No. 62/334,706 (“Agiwal Provisional”)
1010	Second Expert Declaration of Dr. Wayne Stark
1011	Deposition Transcript of Dr. Karthik Sundaresan (Dec. 13, 2024)
2001	Declaration of Mr. Michael McBride in Support of Patent Owner’s Motion for Admission <i>Pro Hac Vice</i> of Michael McBride
2002	Expert Declaration of Dr. Karthikeyan Sundaresan
2003	US20150223148A1 to Shi et al. (“Shi”)
2004	U.S. Patent Pub. No. 2018 0049024 to Schliwa-Bertling <i>et al.</i> (“Schliwa-Bertling”)
2005	ETSI TS 125 211 V3.1.1 (2000-01) Technical Specification, Universal Mobile Telecommunications System (UMTS); Physical channels and mapping of transport channels onto physical channels (FDD) (3G TS 25.211 version 3.1.1 Release 1999)
2006	Second Expert Declaration of Dr. Karthikeyan Sundaresan
2007	’958 Patent’s Parent Application, Application No. 15/659,060 (“’060 App.”)
2008	Provisional Application No. 62/368,126 to which the ’060 App. claims priority (“’126 App.”)

No.	Brief Description
2009	U.S. Patent Application Publication No. US 2018/0288683 to Bendlin <i>et al.</i> (Published Oct. 4, 2018) (“Bendlin”)
2010	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification (3GPP TS 36.331 version 13.2.0 Release 13) (Aug. 2016) (“TS 36.331”)
2011	Invalidity Contentions Chart Ex. C-1 re Brismar, <i>Daingean Techs. v. AT&T Corp. et al.</i> , No. 2:23-cv-00123-JRG-RSP (E.D. Tex.)
2012	Invalidity Contentions Chart Ex. C-2 re Lee, <i>Daingean Techs. v. AT&T Corp. et al.</i> , No. 2:23-cv-00123-JRG-RSP (E.D. Tex.)
2013	Invalidity Contentions Chart Ex. C-3 re Bendlin, <i>Daingean Techs. v. AT&T Corp. et al.</i> , No. 2:23-cv-00123-JRG-RSP (E.D. Tex.)
2014	Invalidity Contentions Chart Ex. C-4 re TS 36.331, <i>Daingean Techs. v. AT&T Corp. et al.</i> , No. 2:23-cv-00123-JRG-RSP (E.D. Tex.)

I. INTRODUCTION

After institution, Patent Owner forwent a Response and unconditionally filed a Motion to Amend, Paper 20 (“MTA”), asking the Board to decide the patentability of the claims as so substituted. Petitioner filed an Opposition to the MTA (“Opp.”) (Paper 22). The Board provided Preliminary Guidance on the MTA (“PG”) (Paper 23).

Patent Owner now files a Revised Motion to Amend (“RMTA”) to substitute the revised claims as set forth in the listing found in Appendix A and is asking the Board to decide the patentability of the revised claims as so substituted.

First, Patent Owner revised limitations 7g and 9e to address the Petitioner-identified broadening issue as so: “whether or not the group containing the second type SIB belonging to the group has changed is determined based on a value tag . . .”²

Second, Patent Owner is further adding limitations 7h and 8f to capture that the radio access node is configured to transmit, or transmits, by broadcast, the group containing the second type SIB in “compressed format” where only the changed parameters of the SIB group containing the second type SIB are sent. *See, e.g.,*

² The underlined crossed out words were in the originally revised claims but are no longer present. Patent Owner added the doubly underlined words to the originally revised claims.

Ex. 1001 18:59–67, 22:42–47. For example, added limitation 7h reads: “transmit by broadcast after the change the group identifier and the group containing the second type SIB in compressed format including only changed ones of plural parameters of the group containing the second type SIB based on a comparison of the value tag, associated with the group containing the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to the group containing the second type SIB.”

Third, Patent Owner is cancelling original dependent claims 2 and 4.

II. PROPOSAL MEETS REQUIREMENTS FOR AMENDMENT

A. Patent Owner Proposes a Reasonable Number of Substitute Claims

Patent Owner’s proposed modifications consist of only two substitute claims, claims 7–8, for four of the challenged claims, original claims 1–4. There is less than a one-for-one substitution that is presumed to be a reasonable number. *See* 37 C.F.R. § 42.121(a)(3).

B. Proposed Substitutes Do Not Enlarge the Scope of the Claims

1. The Substitutes Contain No Broadening Deletions

Patent Owner made no substantive deletions to the original limitations. *See* App’x A.

2. The Revised Substitutes Only Have Further Limiting Amendments

The newly proposed substitute independent claims still require the first type system information block (“1TYP SIB” [or “essential SIB”]) comprise not just a

“value tag” but further requires the value tag be “associated with a group of plural second type system information blocks fewer than the total number of second type information blocks, wherein each of the second type information blocks in the group has different sibIDs and the group has a group identifier.” *See* Limitations 7b, 9a. That is, all the ’958 Patent substitute claims now require the recited value tag in the essential SIB cover *a sub-group of multiple non-essential SIBs with different sibIDs, the collection identified with a group index.* *See, e.g.,* Ex. 1001 Fig. 15 (showing “groupidx=1” and “groupidx=2” among other groups as noted by the ellipsis, each group having multiple SIBs) and Figs. 16 & 35 (showing the essential system information containing a value tag m for groupidx a). The Patent-at-Issue illustrates this group value tag below.

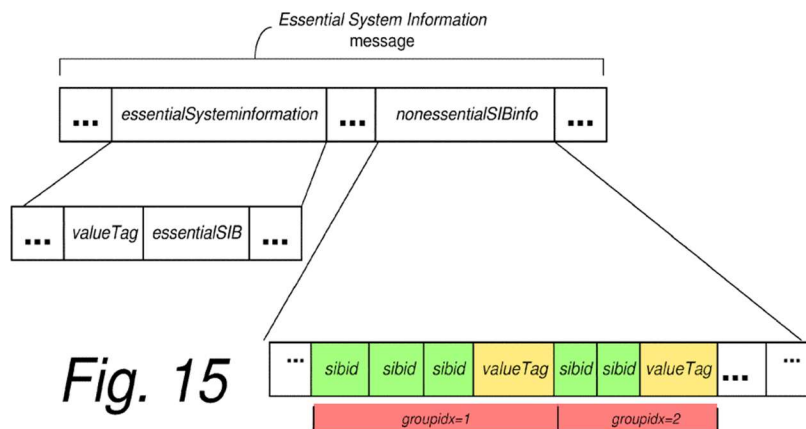


Fig. 15

Id. Fig. 15 (highlighting added).

Additionally, all claims also require “the value tag being updated upon a change of a corresponding second type SIB *belonging to the group.*” *See* Limitations 7b, 9a. That is, the value tag now must not only reflect a change of

a corresponding 2TYPsIB, but the corresponding 2TYPsIB must further be in the specific group identified with the group index. *See, e.g.*, Ex. 1001 Fig. 35 (showing essential system information with updated value tag $m+1$ when SIB # n in groupidx a changes).

Moreover, all claims require that “upon a change of a second type SIB *belonging to the group* whose associated information [in the 1TYPsIB] indicated before the change that *the group containing* the second type SIB was provided on-demand, including in the first type SIB the information associated with *the group containing* the second type SIB indicating that *the group containing* the second type SIB is provided by broadcast.” *See* Limitations 7c, 9b. As such, the claims now require that, upon a change of a 2TYPsIB in the group, the 1TYPsIB signals not only that the changed 2TYPsIB previously available on-demand will now be broadcast, but all the 2TYPsIBs in the group that the 1TYPsIB previously indicated were “on-demand” are automatically switched to “broadcast” upon a change of the claimed 2TYPsIB in the group (and may be broadcast upon a change of any 2TYPsIB in the group). *See, e.g.*, Ex. 1001, 17:63–67 (explaining that “the Non-essential System Information message which is automatically broadcasted after the SIB content update includes the contents of multiple SIBs grouped with the same value tag”); *see also id.* 16:57–60 (noting the “[t]he broadcast-after-update technology . . . may be utilized in conjunction/combination with any other of the

example embodiments and modes described herein.”).

Next, all substitute independent claims have the limitation “whether or not the second type SIB *belonging to the group* has changed is determined based on a value tag, associated with *the group containing* the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to *the group containing* the second type SIB.” See Limitations 7g, 9e. In other words, the determination of the changed 2TYP SIB in the group is at least in part done by comparing the value tag associated not only with the second type SIB but also the group containing the second type SIB from the wireless terminal with the similar value tag kept at the node. See Ex. 1001, 14:24–36 (“[T]he example embodiment and mode . . . involves, e.g., generating the value tag to be associated with a group of plural second type system information blocks . . . [and] comprises making a comparison of the terminal–reported value tag with the value tag.”).

As to this last change, as previously written, Petitioner argued that Patent Owner enlarged the claim scope because the original “language required a 1:1 relationship between the value tag and the second type SIB.” Opp. at 2. While there was an issue, it was not as Petitioner puts forth.³ Petitioner’s “1:1” understanding

³ The problem, as the Board noted, was that while one could determine with certainty there was no change to the second type SIB if there was no change to the

(Footnote continued on next page)

stems from Petitioner's belief that the original claim limitations required determining whether a second type SIB has changed determined based *solely* on a value tag. However, being "comprising" claims (see 7pre and 8pre), the determination need only be *in part* based upon a value tag associated with a second type SIB. See *Regeneron Pharms., Inc. v. Merus NV*, 864 F.3d 1343, 1352 (Fed. Cir. 2017). A system/process would meet the unamended limitation by determining whether a second type SIBs changed based on the value tag *and something else*, like keeping track of SIBs values in the group for a different value tag. See *Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367, 1372–73 (Fed. Cir. 2005); see also Ex. 1001, Fig. 35 (illustrating that a particular SIB#n in a group could be determined in part from the change of the group valueTag from m to m+1). All systems/processes meeting the currently revised limitation would also meet the original limitation, because the limitation *still requires "whether or not the second type SIB . . . has changed is determined based on a value tag."* The second type SIB must now just further "belong[] to the group."

Moreover, while the value tag must now also be associated with the group

group value tag, the reverse was not true: a change to the group value tag did not determine with certainty that there was a change to the second type SIB. PG 6 ("All that is required to meet limitation 7g is that the determination is based on whether or not *the group* has changed.").

containing the second type SIB, the value tag is still also necessarily associated with the *particular* second type SIB because the claims still recite “upon a change of a second type SIB” (see, e.g., 7c) and “whether or not *the* second type SIB . . . has changed is determined based on a value tag” (7g). So, the determination of limitation 7g must involve the particular second type SIB identified in limitation 7c. *Cf.* PG at 5.

As set forth above, the newly revised limitations 7g/8e are not broadening.

Patent Owner also further narrows the substitute independent claims to require a transmitter configured to transmit, or transmitting, “by broadcast after the change the group identifier and the group containing the second type SIB in compressed format including only changed ones of plural parameters of the group containing the second type SIB based on a comparison of the value tag, associated with the group containing the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to the group containing the second type SIB.” *See* Limitations 7h/8f. That is, the substitute independent claims now require (1) the transmission by broadcast of the group identifier for the group containing the 2TYP SIB; and (2) the group also be broadcast in “compressed format” as specified by the claim and described in the specification.

As to the latter requirement, the broadcast transmission only includes changed

parameters—sub parts of SIBs⁴—of the group based on a comparison of the value tag, associated with the group containing the second type SIB stored in the wireless terminal (e.g., a terminal-stored value tag), and the value tag included in the first type SIB corresponding to the group containing the second type SIB (e.g., the node-stored value tag). The Patent-at-Issue shows this feature in Figures 33–35.

Figure 35 is shown below.

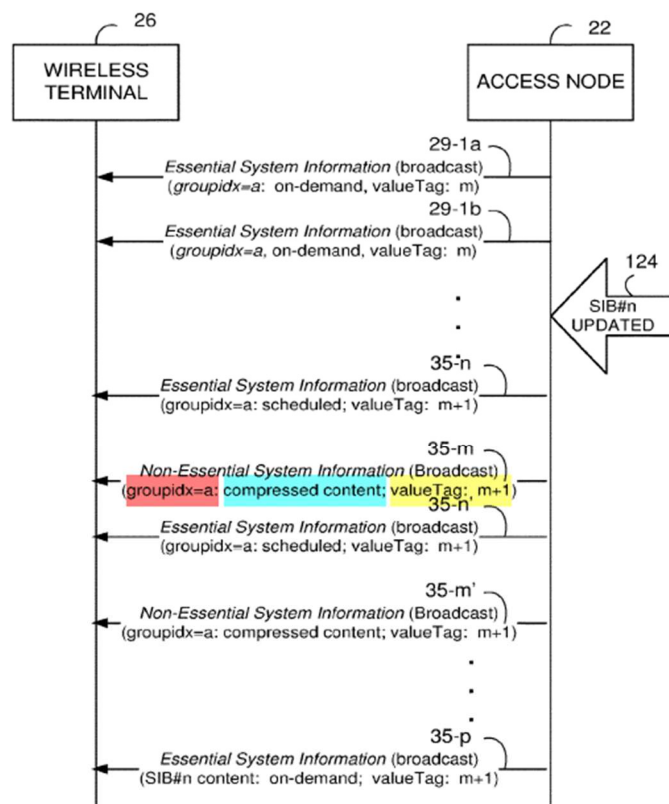


Fig. 35

Ex. 1001, Fig. 35 (highlighting added). As the '958 Patent explains, “compression is achieved by virtue of 2TYPsIB compression formatter 86(31)

⁴ See Claim Construction sub-sections III(B)–(C) below for further discussion.

preferably including in the SIB broadcast-after-update message 33-1 only those system information parameters of the SIB block which have changed.” *Id.* 19:33–36.

Therefore, all the revised amendments of the substitute claims are further limiting, and Patent Owner does not seek to enlarge the scope of the claims.

C. There Is Written Description Support for Each Substitute Claim

None of the proposed substitute claims introduces new subject matter, because each of the proposed substitute claims is supported by the specification for the originally filed 16/597,325 Application (“’325 App.”) that issued as the ’958 Patent [Ex. 1007 pp. 1619–63],⁵ the ’958 Patent’s Parent Application, Application No. 15/659,060 (“’060 App.”) [Ex. 2007], and the Provisional Application No. 62/368,126 (“’126 App.”) [Ex. 2008], to which the ’060 App. claims priority. Exemplary support for the amended claims from the original applications for all substitute claim limitations, not limited to the amended claim limitations, is provided in the table below.⁶

Ref.	’325 App.	’060 App.	’126 App.
Proposed Substitute Claim 7 (for Claim 1)			
7pre	[0002], [0007], Figs. 14, 16	[0002], [0007], Figs. 14, 16	[0002], [0007], Figs. 14, 16

⁵ For Exhibit 1007, Patent Owner refers to the last four digits of the Bates number.

⁶ Patent Owner maintains Petitioner’s claim parsing and reference numbering for consistency.

Ref.	'325 App.	'060 App.	'126 App.
7a	[0122], [0170–74], Figs. 14, 36	[0122], [0170–74], Figs. 14, 36	[0124], [0252–56], Figs. 14, 36
7b	[0025–27], [0041–43], [0065], [0093–96], [0121], [0127], [0133– 34], [0142], [0147], Figs. 14–17, 35, Claims 4 & 9	[0025–27], [0041–43], [0065], [0093–96], [0121], [0127], [0133– 34], [0142], [0147], Figs. 14–17, 35, Claims 4 & 9	[0020–21], [0041], [0105–08], [0121–23], [0145], [0173–76], [00201], [0213–14]. [0228], [0231–32], [0237], [0240–41], [0244–46], [0248], Figs. 14–17, 35, Claims 14, 35, 63
7c	[0108], [0113], [0121], Figs. 26–28, 35	[0108], [0113], [0121], Figs. 26–28, 35	[0188], [0193], [0201], Figs. 26–28, 35
7d	[0007], [0175], Figs. 14, 16, 35	[0007], [0175], Figs. 14, 16, 35	[0007], [0257], Figs. 14, 16, 35
7e	[0095], Figs. 14, 16, 35	[0095], Figs. 14, 16, 35	[0175], Figs. 14, 16, 35
7f	[0112]	[0112]	[0192]
7g	[0096], Figs. 14, 17	[0096], Figs. 14, 17	[0021], [0042], [0063], [0176], Figs. 14, 17, Claim 15
7h	[0095], [0086–88], [0098], [0118–19], [0153], Figs. 16, 35	[0095], [0086–88], [0098], [0118–19], [0153], Figs. 16, 35, Claims 3–4, 8–9	[0024–27], [00166–68], [0048], [0175], [0198– 201], Figs. 16, 35, Claims 13, 20–21, 41, 84
Proposed Substitute Claim 8 (for Claim 3)			
8pre	See Limitation 7pre		
8a	See Limitation 7b		
8b	See Limitation 7c		
8c	See Limitation 7e		
8d	See Limitation 7f		
8e	See Limitation 7g		
8f	See Limitation 7h		

D. Proposed Amendments Respond to a Ground of Unpatentability Involved in the Trial

Patent Owner's proposed amendments in the substitute claims are responsive

to the grounds of unpatentability, because (1) the substantive amendments address claims for which the Panel instituted trial, *see* Paper 12, and (2) the limitations are added specifically to more clearly render the patented invention non-obvious from the prior art, including the art cited in the Petition, Institution Decision, Petitioner’s Opposition to the MTA, and the Board’s Preliminary Guidance.

III. CLAIM CONSTRUCTION

A. Second Type System Information Blocks (“SIBs”)

Initially, neither Party nor the Board identified any claim constructions required for the unamended claims. Paper 2 (“Pet.”) at 7–8; Paper 10 (“POPR”) at 10; Paper 12 (“Inst. Dec.”) at 7–8. However, in its Opposition to the MTA, Petitioner argues that “*lack of any requirements for the second type SIBs . . . renders the claims indefinite.*” Opp. at 3–4 (emphasis added). This is incorrect, because claims in a motion to amend use the *Phillips* standard, 37 C.F.R. § 42.100(b), and the ’958 Patent specifically defines second type SIBs—including “requirements”—that inform those skilled in the art with reasonable certainty about the scope of the invention. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

Specifically, the ’958 Patent says a “first type of system information (1TYP SIB) is ‘essential system information,’ which means system information (SI) which is essential to or minimally required by the wireless terminal 26 for initial

access to the radio access network and to radio interface 24.” Ex. 1001, 8:34–39. And the ’958 Patent defines a “second type of system information (2TYP SIB) [as] . . . ‘Non-essential’ system information (SI) [that] is . . . ***all other types of information***,” such as SI that “facilitate utilization of certain features or services provided by or through [a] radio access node.” *Id.* 8:41–50 (emphasis added). That is, the Patent-at-Issue bifurcates all SIBs into two types, and second type SIBs are all SIBs that are not first type SIBs, i.e., that do *not* have “essential system information” as defined. *See Ethicon LLC. v. Intuitive Surgical, Inc.*, 847 Fed. Appx. 901, 907 (Fed. Cir. 2021) (noting independent lexicography in the written description would justify a negative limitation).

This provides a POSITA an objective standard to determine second type SIBs. A POSITA can ascertain whether a SIB contains information that is “minimally required by the wireless terminal 26 for initial access to the radio access network and to [the] radio interface,” *see* Ex. 1011, 39:7–14, and, if not, this is a second type SIB. Indeed, the prior art identifies this type of information. *See, e.g.*, Ex. 1004 [0072] (“SIB2 includes ***necessary information for a UE to access a cell***.”) (emphasis added); Ex. 1008 [0016] (“The method includes receiving, from a base station (BS), first type SI associated with SI ***which is essential for communication*** with the BS.”) (emphasis added). And Petitioner has no problem identifying the second type SIBs in its invalidity analysis. *See, e.g.*, Opp. at 13 (alleging that

“Agiwal, like Lee, teaches *using minimum or essential SI (first-type SIBs)* to broadcast information about second-type SIBs”) (emphasis added).

Petitioner is wrong that “the second type SIB could include *any kind of information.*” Opp. at 4 (emphasis added). As just explained, the definition of a second type SIB means that a second type SIB *cannot include essential information.*

Petitioner is also wrong that “the first type SIB could also be a second type SIB,” and the Board’s concerns that “the claims do not exclude overlap between the first and second types of SIB,” PG 10, should be allayed. The two types cannot overlap and are mutually exclusive, because a second type SIB does not contain essential information, so cannot be a first type SIB that, by definition, does contain essential information.

Additionally, for a determination of claim scope it matters not that “[t]here could be third or fourth type SIBs,” PG 10 (citing Opp. 4). The categories of type one SIBs (those with essential information) and type two SIBs (those without) cover all SIBs. That a person could arbitrarily define other types—such as calling all SIBs dealing with V2X “type 3”—does not change the analysis of whether any V2X “type 3” SIB has essential information, so is also a type one SIB, or not, so is also a type two SIB.

Finally, ascertaining the “the total number of second type information blocks”

is not difficult. *Cf.* PG at 10. As described in the '958 Patent, and as claimed, second type information blocks have different “sibIDs” that may simply be a list of natural numbers (#1, #2, #3, . . . #n) . Ex. 1001 10:12–17. The total number of second type of information blocks is ascertained by identifying which of the SIBs in the finite pool do not have essential information.

B. Compressed Format

Patent Owner introduces a new term in the proposed revised amended claims, “compressed format,” where the claims themselves define the term. Specifically, “compressed format” includes “only changed ones of plural parameters of the group containing the second type SIB, based on a comparison of the value tag, associated with the group containing the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to the group containing the second type SIB.” Therefore, the Board need not further define this term.

C. Parameters

Patent Owner also introduces a new term in the proposed revised amended claims, “parameters.” The '958 Patent teaches that parameters are sub-portions of a single SIB. For example, SIB #n may “consists of parameters p1 to p10.” Ex. 1001, 56–57. So, one parameter of SIB #n, p1, may be bits 3 to 0, and a second parameter of SIB #n, p2, may be bits 5 to 4.

* * * * *

Patent Owner believes that for the purposes of deciding whether to grant the RMTA the Board should give all other terms their plain and ordinary meaning to one of ordinary skill in the art standard read in light of the specification delineating the patent and the prosecution history at the effective priority date.

IV. SUBSTITUTE CLAIMS ARE PATENTABLE

While Patent Owner need not establish non-obviousness of the substitute claims and it is Petitioner's burden to establish obviousness of the new claims, 37 C.F.R. § 42.121(d)(2); *see also In re Aqua Prods., Inc.*, 872 F.3d 1290, 1296 (Fed. Cir. 2017), Petitioner nonetheless now describes the advantage of the new claims generally, and compares the claims vis-à-vis Lee, Brismar, and Agiwal.

At a high level, the newly revised claims capture a node transmitting the changed SIB with the group in “compressed format” where the node only sends the changed parameters of the broadcast-after-update SIB group, that results at least in reduced transmission bandwidth because the access node does not send non-changed parameters of the group. This is an advantage as SIBs may range to thousands of bits wide. *See, e.g.*, Ex. 1009, pp. 4–5.

1. Lee and Agiwal⁷

Lee and Agiwal alone or in combination at least do not teach or suggest broadcasting a sub-group of SIBs with a changed second type SIB with a “group identifier” and in a “compressed format.” That is, neither teaches or suggests “transmitting by broadcast after the change the group identifier and the group containing the second type SIB in compressed format including only changed ones of plural parameters of the group containing the second type SIB based on a comparison of the value tag, associated with the group containing the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to the group containing the second type SIB,” *see* limitations 7h/8f, where the “group of plural second type system information blocks fewer than the total number of second type information blocks, wherein each of the second type information blocks in the group has different sibIDs and the group has a group identifier,” *see* Limitations 7b/8a.

Note that Agiwal does disclose the concept of parameters as set forth in the claims, *see, e.g.*, Ex. 1008 [0246]; however, Agiwal only teaches that different

⁷ Petitioner analyzes Agiwal under “pre-AIA 35 U.S.C. § 102(e),” Paper 22 at 10–11; however, the Board should analyze the ’958 Patent under the AIA because it “contains or contained at any time” a claim with an effective filing date on or after March 16, 2013. *See* The Leahy-Smith America Invents Act, 125 Stat. 284 §§ 6(f)(2)(A), 3(n)(1)(2011).

combinations of parameters can be pre-mapped (i.e., “Configuration 0” may consist of the combination of parameters P, Q, and R equal to P0, Q0, R0), *id.*, but not the sending of only changed parameters of a group—i.e., a group in compressed format—as defined in the revised claims.

2. Brismar

Brismar does not meet basic limitations of the claims even before amendments, and these limitations remain. First, what Petitioners point to as a first type SIB, static SIBs, do not have a “*value tag being updated* upon a change of a corresponding second type SIB . . .,” that Petitioners identify as the dynamic SIBs. *See* Limitations 7b, 9a. This is so because in Brismar only static SIBs use value tags, while dynamic SIBs use a timer mechanism. Ex. 1005 [0012], [0013], [0074–79], [0087], [0106]. Therefore, the static SIB value tags are not related to the dynamic SIBs and do not update when dynamic SIBs change.

Second, the dynamic SIBs are always “on demand” and do not “indicate[] before the change [of a second type SIB] that the group containing second type SIB was provided on-demand.” *Cf.* Limitations 7c, 9b. What Petitioners point to as meeting this limitation, the SI distribution in progress flag, Pet. 41–32, only applies to *static* SIBs as shown in Brismar Figure 12 (showing “*STATIC* SI”).

Third, Brismar does not teach that the “SI distribution in progress flag” that Petitioners allege is information indicating whether a dynamic SIB is provided by

broadcast or on-demand is part of a Petitioner-identified “first type system information block (SIB),” a static SIB, as required by the claims. *See* limitations 7b, 7g, 9b, and 9e. To the contrary, Brismar suggests “send[ing] the SI distribution in progress flag over the Uu interface . . . [using] the **currently unused bits** on an already existing channel such as the Paging Indicator Channel (PICH) or Acquisition Indicator Channel (AICH)” or “us[ing] DTX-parts of the P-CCPCH to carry the flag.” Ex. 1005 [0175, 0177] (emphasis added).

Petitioners concede that Brismar does not disclose the SI distribution in progress flag in the Petitioner-identified first type SIB (static SIBs) and rely solely upon their expert’s testimony that a POSITA “would have considered it obvious to include the information provided by the distribution in progress flag in the [first identified static] SIB transmitted,” merely because Brismar suggests sending the flag via the P-CCPCH channel where SIBs are transmitted. Pet. 42 (citing Ex. 1002 ¶159). But Brismar explicitly recognizes that SIBs are sent on a first physical channel, P-CCPCH, Ex. 1005 [0023–24] & [0192], yet Brismar suggested **avoiding** using bits already allocated to SIBs to maintain backwards compatibility with legacy information, *id.* [0064], [0065], [0177].

Given that Brismar does not disclose a value tag covering a Petitioners’ identified second type SIB or an indication in a first type SIB how the pointed-to second type SIB is provided to the mobile device, Brismar doubly does not disclose

a particular value tag for a second type SIB that is “associated with a group of plural second type system information blocks fewer than the total number of second type information blocks, wherein each of the second type information blocks in the group has different sibIDs and the group has a group identifier.”

Rather, Brismar discusses the legacy system whereby “[w]hen a SIB is modified, the UE must first read the MIB, followed by the Scheduling Block, to find out which SIB value tag has been changed.” *Id.* [0020]. Brismar has four proposed embodiments; however, none use group value tags for the second type SIBs Petitioner’s identify. For the first embodiment, Brismar teaches that “legacy update mechanisms may be reused” and “[f]or dynamic SIBS, expiration timers may be used,” *id.* [0087], and “[s]imilar to the first embodiment, legacy update mechanisms may be reused for the second embodiment,” *id.* [0092]. In the third embodiment, Brismar suggests for static SIBs that there be one value tag to cover all of them, and one for each individually, and that the global “value tag may be sent to the UE whenever the content of a BC2 SIB is modified,” after which “the UE may check the SB-BC2 and compare the new value tags for the BC2 SIBs with the stored ones” to determine which need to be reacquired. *Id.* [0097]. In the fourth and final embodiment, Brismar teaches that “legacy update mechanisms can be reused to some extent. However, a new SIB-S value tag may be included in the Paging Type 1 and System Information Change Indication messages. This value tag may be sent to

the UE whenever the content of a SIB-S is modified.” *Id.* [0109]. That is, like embodiments 1 and 2, there is a global value tag, but, like embodiment 3, there are also individual SIB-S value tags.

Therefore, Brismar does not ameliorate Lee’s missing value tag “associated with a group of plural second type system information blocks fewer than the total number of second type information blocks, wherein each of the second type information blocks in the group has different sibIDs and the group has a group identifier.”

Indeed, Petitioner’s decision not to invoke Brismar in its opposition to the MTA is a tacit concession that Brismar alone or in combination does not render the revised claims anticipated or obvious.

V. INFORMATION OF WHICH THE PATENT OWNER IS AWARE THAT IS MATERIAL TO THE PATENTABILITY OF SUBSTITUTE CLAIMS, IF SUCH INFORMATION IS NOT ALREADY OF RECORD IN THE CASE

Out of an abundance of caution, considering *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129-15, § 8 (PTAB Feb. 25, 2019) (precedential), Patent Owner previously produced Invalidity Charts, and the underlying charted references if not already of record, from a previously related matter, *see* Paper 18 § II, that Petitioner contended were material to the patentability of the original claims. *See* Exs. 2009–14.

VI. CONCLUSION

For the reasons set forth above, Patent Owner respectfully requests that the Board grant this RMTA and allow the substitute claims.

Dated: February 11, 2025 Respectfully submitted,
/Joshua S. Wyde/
Joshua S. Wyde (Reg. No. 57,698)

ALAVI & ANAIPAKOS PLLC
609 Main Street, Suite 3200
Houston, Texas 77002
Tel: (713) 751-2365
Fax: (713) 751-2341
jwyde@aatriallaw.com

Counsel for Patent Owner,
DAINGEAN TECHNOLOGIES LTD.

APPENDIX A—PROPOSED SUBSTITUTE CLAIM LISTING⁸

Ref	Limitation
7pre	7. (proposed substitute for claim 1) An access node of a radio access network that communicates over a radio interface with a wireless terminal, the access node comprising:
7a	processor circuitry configured:
7b	to generate a first type system information block (SIB) comprising information and a value tag <u>associated with a group of plural second type system information blocks fewer than the total number of second type information blocks, wherein each of the second type information blocks in the group has different sibIDs and the group has a group identifier</u> , the information indicating whether one or more associated second type system information blocks are provided by broadcast or on-demand, the value tag being updated upon a change of a corresponding second type SIB <u>belonging to the group</u> , the first type SIB being required for the wireless terminal to perform an initial access to the radio access network;
7c	upon a change of a second type SIB <u>belonging to the group</u> whose associated information indicated before the change that <u>the group containing</u> the second type SIB was provided on-demand, to include in the first type SIB the information associated with <u>the group containing</u> the second type SIB indicating that <u>the group containing</u> the second type SIB is provided by broadcast;
7d	transmitter circuitry configured to:
7e	transmit the first type SIB;
7f	transmit a message that triggers the wireless terminal to receive the first type SIB, wherein;
7g	whether or not the second type SIB <u>belonging to the group</u> has changed is determined based on a value tag, associated with <u>the group containing</u> the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to <u>the group containing</u> the second type SIB; <u>and</u> [.]

⁸ Patent Owner follows Petitioner's limitation reference numbering for consistency. Patent Owner shows deletions from the original claims with red brackets surrounding red text and shows additions with blue underlined text.

Ref	Limitation
7h	<u>transmit by broadcast after the change the group identifier and the group containing the second type SIB in compressed format including only changed ones of plural parameters of the group containing the second type SIB based on a comparison of the value tag, associated with the group containing the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to the group containing the second type SIB.</u>
8pre	8. (proposed substitute for claim 3) A method for an access node of a radio access network that communicates over a radio interface with a wireless terminal, the method comprising:
8a	generating a first type system information block (SIB) comprising information and a value tag <u>associated with a group of plural second type system information blocks fewer than the total number of second type information blocks, wherein each of the second type information blocks in the group has different sibIDs and the group has a group identifier</u> , the information indicating whether one or more associated second type system information blocks are provided by broadcast or on-demand, the value tag being updated upon a change of a corresponding second type SIB <u>belonging to the group</u> , the first type SIB being required for the wireless terminal to perform an initial access to the radio access network;
8b	upon a change of a second type SIB <u>belonging to the group</u> whose associated information indicated before the change that <u>the group containing</u> the second type SIB was provided on-demand, including in the first type SIB the information associated with <u>the group containing</u> the second type SIB indicating that <u>the group containing</u> the second type SIB is provided by broadcast;
8c	transmitting the first type SIB;
8d	transmitting a message that triggers the wireless terminal to receive the first type SIB, wherein;
8e	whether or not the second type SIB <u>belonging to the group</u> has changed is determined based on a value tag, associated with <u>the group containing</u> the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to <u>the group containing</u> the second type SIB; and[.]]

Ref	Limitation
8f	<u>transmitting by broadcast after the change the group identifier and the group containing the second type SIB in compressed format including only changed ones of plural parameters of the group containing the second type SIB based on a comparison of the value tag, associated with the group containing the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to the group containing the second type SIB.</u>

CERTIFICATE OF SERVICE

The undersigned certifies that on the eleventh day of February, 2025, a complete and entire copy of the foregoing “PATENT OWNER’S REVISED NON-CONTINGENT MOTION TO AMEND,” including exhibits, if any, was served on the following counsel of record via email per Petitioners’ consent to electronic service. *See Paper 2 at 1:*

Petitioners’ Distribution List ATT_Daingean@mckoolsmith.com.

Scott W. Hejny shejny@McKoolSmith.com

Eric Hansen ehansen@McKoolSmith.com

Dated: February 11, 2025

/Joshua S. Wyde/
Joshua S. Wyde (Reg. No. 57,698)

Counsel for Patent Owner,
DAINGEAN TECHNOLOGIES LTD.