

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

TOGAIL TECHNOLOGIES LTD.,

Plaintiff,

v.

APPLE INC.,

Defendant.

Case No. 6:22-cv-00326-ADA

JURY TRIAL DEMANDED

**TOGAIL TECHNOLOGIES LTD.'S
RESPONSIVE CLAIM CONSTRUCTION BRIEF**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	'238 PATENT DISPUTED TERMS.....	1
	A. “A method for a user equipment (UE) of a connected state, the method comprising”, '238 Patent Claim 1	1
	B. “receiving a system information (SI) change indication broadcasted by a paging”, '238 Patent Claim 11	3
	1. The disputed limitation reflects functionality of the “user equipment” and the background context in which it operates.....	3
	2. Apple’s arguments and authority are unpersuasive	6
III.	'502 PATENT DISPUTED TERMS	8
	A. “A method of an on-demand system information (SI) request procedure performed by a user equipment (UE), the method comprising”, '502 Patent Claim 1	8
	B. “first SI request message including at least one requested system information block (SIB),” '502 Patent Claims 1 and 11	9
	C. “transmitting a fourth SI request message to the BS after determining that the UE is not in the connected state”, '502 Patent Claims 6 and 16	12
	D. “receiving, from the BS, the at least one requested SIB via dedicated signaling that is transmitted in response to the first SI request message”, '502 Patent Claim 15	15
IV.	'972 PATENT DISPUTED TERMS.....	18
	A. “leading time [value[s] / duration[s]]”, '972 Patent Claims 1, 11, and 15	18
V.	CONCLUSION	23

TABLE OF AUTHORITIES

Cases

<i>Cochlear Bone Anchored Solutions AB v. Oticon Med. AB</i> , 958 F. 3d 1348 (Fed. Cir. 2020)	1
<i>Deere & Co. v. Bush Hog, LLC</i> , 703 F.3d 1349 (Fed. Cir. 2012)	2, 9
<i>Epos Techs Ltd. v. Pegasus Techs.</i> , 766 F.3d 1338 (Fed. Cir. 2014)	11, 20
<i>Freeny v. Fossil Grp., Inc.</i> , No. 2:18-CV-00049-JRG-RSP, 2019 WL 2078783 (E.D. Tex. May 10, 2019)	16
<i>HTC Corp. v. ICom GmbH & Co., KG</i> , 667 F.3d 1270 (Fed. Cir. 2012)	5, 6, 16, 17, 18
<i>Huawei Techs. Co. v. T-Mobile US, Inc.</i> , No. 2:16-CV-00055-JRG-RSP, 2017 WL 2190103 (E.D. Tex. May 17, 2017)	14
<i>Kaifi LLC v. AT&T Corp.</i> , No. 2:19-CV-00138-JRG, 2020 WL 1905358 (E.D. Tex. Apr. 17, 2020)	6
<i>MasterMine Software, Inc. v. Microsoft Corp.</i> , 874 F.3d 1307 (Fed. Cir. 2017)	4, 5, 16, 17
<i>Microprocessor Enhancement Corp. v. Texas Instrus. Inc.</i> , 520 F.3d 1367 (Fed. Cir. 2008)	5, 16
<i>Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.</i> , 831 F.3d 1350 (Fed. Cir. 2016)	14, 15
<i>Nautilus, Inc. v. Biosig Instrus., Inc.</i> , 572 U.S. 898 (2014)	10
<i>Neville v. Foundation Constructors, Inc.</i> , 972 F.3d 1350 (Fed. Cir. 2020)	10
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005) (<i>en banc</i>)	9, 11, 21
<i>Power Integrations, Inc. v. ON Semiconductor Corp.</i> , No. 16-CV-06371-BLF, 2018 WL 5603631 (N.D. Cal. Oct. 26, 2018)	7, 17
<i>Ruckus Wireless, Inc. v. Innovative Wireless Sols., LLC</i> , 824 F.3d 999 (Fed. Cir. 2016)	11

<i>Semcon IP Inc. v. Huawei Device USA Inc.</i> , No. 2:16-CV-00437-JRG-RSP, 2017 WL 2972193 (E.D. Tex. July 12, 2017)	21
<i>SFA Sys., LLC v. 1-800-Flowers.com, Inc.</i> , 940 F. Supp. 2d 433 (E.D. Tex. 2013)	5, 15
<i>Shoes by Firebug LLC v. Stride Rite Children’s Grp., LLC</i> , 962 F.3d 1362 (Fed. Cir. 2020)	2, 9
<i>Sonix Tech. Co. v. Publ’ns Int’l, Ltd.</i> , 844 F.3d 1370 (Fed. Cir. 2017)	3, 9, 13, 15
<i>Synchronoss Techs., Inc. v. Dropbox, Inc.</i> , 987 F.3d 1358 (Fed. Cir. 2021)	11
<i>TomTom, Inc. v. Adolph</i> , 790 F.3d 1315 (Fed. Cir. 2015)	1, 8
<i>Toshiba Corp. v. Imation Corp.</i> , 681 F.3d 1358 (Fed. Cir. 2012)	19
<i>UltimatePointer, L.L.C. v. Nintendo Co.</i> , 816 F.3d 816 (Fed. Cir. 2016)	3, 5, 7, 15, 17
<i>UltimatePointer, L.L.C. v. Nintendo Co.</i> , No. 6:11-CV-496-LED, 2013 WL 2325118 (E.D. Tex. May 28, 2013)	7, 17
<i>Uniloc 2017 LLC v. Google LLC</i> , No. 2:18-CV-00493-JRG-RSP, 2020 WL 339802 (E.D. Tex. Jan. 20, 2020)	17
<i>Visible Connections, LLC v. Zoho Corp.</i> , 418 F. Supp. 3d 155 (W.D. Tex. 2019)	8
<i>Vitronics Corp. v. Conceptronic, Inc.</i> , 90 F.3d 1576 (Fed. Cir. 1996)	12
<i>Williams Mfg. Co. v. United Shoe Machinery Corp.</i> , 316 U.S. 364 (1942)	2, 8

I. INTRODUCTION

Plaintiff Togail Technologies Ltd. (“Togail”) submits this claim construction brief in response to Apple Inc.’s (“Apple”) opening claim construction brief (Dkt. No. 49, “Br.”) concerning U.S. Patent Nos. 10,743,238 (“the ’238 Patent”), 10,791,502 (“the ’502 Patent”), and U.S. Patent 10,972,972 (“the ’972 Patent”).

II. ’238 PATENT DISPUTED TERMS

A. “A method for a user equipment (UE) of a connected state, the method comprising”, ’238 Patent Claim 1

Togail’s Proposed Construction	Apple’s Proposed Construction
The preamble is not limiting except for “a user equipment (UE)”	The preamble is limiting

Togail agrees that the preamble’s recitation of “a user equipment (UE)” is limiting because it provides antecedent basis for later claim limitations. Thus, the only dispute is whether the phrase “of a connected state” is also limiting. Here, the “of a connected state” language recites only an intended use of the invention and is therefore not limiting. *See Cochlear Bone Anchored Solutions AB v. Oticon Med. AB*, 958 F.3d 1348, 1355 (Fed. Cir. 2020) (“A conclusion that some preamble language is limiting does not imply that other preamble language, or the entire preamble, is limiting.”); *TomTom, Inc. v. Adolph*, 790 F.3d 1315, 1323 (Fed. Cir. 2015) (holding that when a phrase in the preamble “provides a necessary structure for [the claim] does not necessarily convert the *entire* preamble into a limitation, particularly one that only states the intended use of the invention”).¹

Apple does not contend that the “of a connected state” language supplies antecedent basis for any limitations in the body of the claim. Rather, Apple merely contends that “the preamble recites ‘additional structure . . . underscored as important by the specification.’” Br. at 8. But the

¹ All emphasis added unless stated otherwise.

“of a connected state” language merely refers to the environment in which the claimed method is meant to operate and is not a structural limitation. *See, e.g., Williams Mfg. Co. v. United Shoe Machinery Corp.*, 316 U.S. 364, 369 (1942) (stating that a patentee can reference “other mechanical parts” in describing the environment in which an invention is meant to “operate” without necessarily making those other parts elements of the claim). Moreover, the body of the claim defines all the steps of the claimed method such that the “of a connected state” language merely states an intended use for the invention. *See Shoes by Firebug LLC v. Stride Rite Children’s Grp., LLC*, 962 F.3d 1362, 1367 (Fed. Cir. 2020) (“[A] preamble is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.”).²

Contrary to Apple’s argument, a POSITA would understand that the body of Claim 1 defines a structurally complete invention. Madisetti Decl. ¶47. A POSITA would also understand that the “of a connected state” language states an intended use for the invention and is not necessary to breathe life, meaning and vitality into the claimed invention. *Id.* Specifically, the body of the claim recites all the steps of the claimed method, and the “of a connected state” language simply provides context and indicates a potential use of the fully-articulated, linguistically-complete method. *Id.* Accordingly, the Court should adopt Togail’s construction that the “of a connected state” language is not limiting.

² Apple’s discussion of *Deere & Co. v. Bush Hog, LLC* is inapposite. Br. at 8 (citing 703 F.3d 1349, 1357-58 (Fed. Cir. 2012)). That case involved an apparatus claim where the term “rotary cutter deck” “informs one of skill in the art as to the **structure** required by the claim.” *Id.* at 1358. Moreover, the term provided antecedent basis for “said deck” in Claim 5. *Id.* at 1357. In contrast, the “of a connected state” language at issue here does not provide a “structural” limitation and does not provide antecedent basis. Apple’s argument that the preamble here recites “structure” is only relevant to the “user equipment (UE)” language and plainly does not apply to the “of a connected state” language, which is not a structural limitation.

B. “receiving a system information (SI) change indication broadcasted by a paging”, ’238 Patent Claim 11

Togail’s Proposed Construction	Apple’s Proposed Construction
No construction necessary ³	Indefinite
Plain and ordinary meaning	

Apple cannot meet its burden to prove indefiniteness by clear and convincing evidence. *See Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017) (“Indefiniteness must be proven by clear and convincing evidence.”). Apple argues that Claim 11 is indefinite because it supposedly “improperly claims a mixed method and apparatus of the type prohibited by *IPXL*.” Br. at 10. Not so. Claim 11 recites functionality tied to the claimed apparatus (*i.e.*, “user equipment (UE)”). Madisetti Decl. ¶ 51. Specifically, Claim 11 recites that the “user equipment (UE)” is capable of “receiving a system information (SI) change indication broadcasted by a paging.” As such, the recited functionality is directly tied to the operation of the UE apparatus and is not indefinite under *IPXL*. *See UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816, 827 (Fed. Cir. 2016) (“Unlike *IPXL* and similar cases, the claims at issue here make clear that the ‘generating data’ limitation reflects the capability of that structure rather than the activities of the user.”).

1. The disputed limitation reflects functionality of the “user equipment” and the background context in which it operates

Claim 11 recites “[a] user equipment (UE) for wireless communication, comprising:”

a non-transitory machine-readable medium storing computer-executable instructions;

a processor coupled to the non-transitory computer-readable medium, and configured to execute the computer-executable instructions to cause the UE of a connected state to perform operations comprising:

³ For terms/phrases where Togail has indicated that no construction is necessary, Togail contends that either no construction is necessary or the term should be construed according to its plain and ordinary meaning.

receiving a system information (SI) change indication broadcasted by a paging via a currently active bandwidth part (BWP) during a modification period;

in response to receiving the SI change indication, switching from currently active BWP to an initial active BWP for an SI update; and

receiving remaining minimum SI (RMSI) via the initial active BWP during a next modification period that immediately follows the modification period, wherein the RMSI includes information associated with changed system information block (SIB);

determining which of the changed SIBs is required to be updated for the UE according to the received RMSI; and

receiving content of the required changed SIBs based on the determination.

In other words, Claim 11 recites the apparatus of “a user equipment (UE) for wireless communication,” which includes the structures of “a non-transitory machine-readable medium,” “computer executable instructions,” and “a processor.” The Claim also delineates the functionalities of the “user equipment”—such as “*receiving* a system information (SI) change indication,” “*switching* from currently active BWP,” “*receiving* remaining minimum SI (RMSI),” “*determining* which of the changed SIBs is required to be updated,” and “*receiving* content ... based on the determination.” Based on the forgoing, Claim 11 recites an apparatus (“user equipment”), its structures (*e.g.*, “a non-transitory machine-readable medium,” “a processor”), and the functionality of the apparatus. Madisetti Decl. ¶ 52; *see also, e.g., MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1316 (Fed. Cir. 2017) (holding claims not indefinite where “[t]he limitations at issue here (‘receiv[ing] from the user a selection’ and ‘generat[ing] a database query as a function of the user selected database fields’) focus on the capabilities of the system” and “these verbs represent permissible functional language used to describe capabilities of the ‘reporting module.’”); *SFA Sys., LLC v. 1-800-Flowers.com, Inc.*, 940 F. Supp. 2d 433, 455 (E.D.

Tex. 2013) (“Verbs such as ‘detect[ing],’ ‘infer[ring],’ and ‘initiat[ing]’ serve to recite the system’s capabilities.”).

Further, in the context of the disputed phrase, Claim 11 describes that the recited apparatus (“user equipment”) is configured to “receive” “a system information (SI) change indication”, which is clearly referring to functionality of the claimed “user equipment.” Indeed, Apple admits “the UE does the ‘receiving’[.]” Br. at 13. To that end, “the claims do not reflect an attempt to claim both an apparatus and a method, but instead claim an apparatus with particular capabilities.” *UltimatePointer*, 816 F.3d at 828. Because Claim 11 is directed to the functionality of the claimed “user equipment (UE),” the claim is a proper apparatus claim and not indefinite under *IPXL*. See *MasterMine*, 874 F.3d at 1316 (“the functional language here does not appear in isolation, but rather, is specifically tied to structure: the reporting module installed within the CRM software application.”); *Microprocessor Enhancement Corp. v. Texas Instrus. Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008) (“Claim 7 of the ’593 patent, however, is clearly limited to a pipelined processor possessing the recited structure and *capable* of performing the recited functions, and is thus not indefinite under *IPXL Holdings*.”) (emphasis in original).

Apple’s argument that the claim is somehow indefinite because “other network equipment, not the UE, performs the ‘broadcasted by a paging’” limitation is misguided. Br. at 10. The parties’ dispute is analogous to the issues decided by the Federal Circuit in *HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270 (Fed. Cir. 2012). The disputed claims in that case involved a “mobile station for use with a network *including* a first base station and a second base station that achieves a handover from the first base station to the second base station by ...” a series of certain enumerated steps. *Id.* at 1274. There, the “parties disagree[d] whether the mobile station or the network, both recited in paragraph 1, implements the six functions” recited in the claims. *Id.* The

Federal Circuit held that “the six functions define the network environment; they are not functions performed by the mobile station.” *Id.* at 1276-77. However, as is the case here, the Federal Circuit held that the disputed claim did not raise an *IPXL* issue because the claims “do not recite a mobile station and then have the station perform the six enumerated functions.” *Id.* Rather, “[t]he claims merely establish those functions as the underlying network environment in which the mobile station operates.” *Id.*

As in *HTC*, Claim 11 also establishes “the underlying network environment in which the [user equipment] operates.” *HTC Corp.*, 667 F.3d at 1277. That is, the claimed apparatus (*i.e.*, “user equipment”) functions to “receive” a “system information (SI) indication broadcasted by a paging.” Madisetti Decl. ¶ 53. As such, “infringement occurs when one makes, uses, offers to sell, or sells the claimed apparatus: the [user equipment]—which must be used in a particular network environment.” *HTC Corp.*, 667 F.3d at 1277; Madisetti Decl. ¶ 54. And, here, Apple is merely complaining about the “particular network environment” set forth in the claim—namely that the “system information (SI) indication [is] broadcasted by a paging.” Br. at 10-14. But Apple does not, as it cannot, cite to any specification support for the proposition that any other entity aside from the recited “user equipment” is the entity that performs the function of “receiv[ing]” “a system information (SI) change indication.” Thus, merely because Claim 11 further delineates the underlying network environment in which the claimed apparatus operates, it is not indefinite. *See Kaifi LLC v. AT&T Corp.*, No. 2:19-CV-00138-JRG, 2020 WL 1905358, at *17 (E.D. Tex. Apr. 17, 2020) (“In contrast to the claims in *IPXL*, Claim 1 does not recite a user’s act of connecting, but instead recites the capability of the claimed system.”).

2. Apple’s arguments and authority are unpersuasive

Apple is wrong that the disputed claim “resembles the claim held invalid in *Power Integrations*.” Br. at 13 (citing No. 16-CV-06371-BLF, 2018 WL 5603631, at *15, *17 (N.D. Cal.

Oct. 26, 2018)). In *Power Integrations*, the disputed limitation recited “said control signal being provided”, but “[t]here [wa]s no recited structure in the claim that arguably *provides that signal*.” 2018 WL 5603631, at *17. That is not the case here. As Apple admits, it is the recited “user equipment (UE)” that receives “a system information (SI) change indication.” Br. at 13 (noting “the UE does the ‘receiving’”). Thus, unlike *Power Integrations* and “[u]nlike the claims in *IPXL* and *Katz*, the claims do not recite functionality divorced from the cited structure.” *UltimatePointer*, 816 F.3d at 827-28.

Additionally, Apple’s reliance on the district court’s analysis in *UltimatePointer* is misplaced. Br. at 11-12 (citing No. 6:11-cv-496, 2013 WL 2325118, at *23 (E.D. Tex. May, 28, 2013)). There, “the claim recite[d] control of a feature on an image ‘based on the relation between the first spatial state and the second spatial state of the enclosure.’” 2013 WL 2325118, at *23. But, as the court recognized, (1) the creation of “special states depends on data generated ‘while the pointing line is directed at a ... calibration point’” and (2) “[t]his requires the user to direct the handheld enclosure between two points, effectively requiring the user to use the pointing device.” *Id.* Unlike the claim at issue in *UltimatePointer*, Claim 11 of the ’238 Patent does not require a user input in order for the recited “user equipment (UE)” to receive certain information (such as “a system information (SI) change indication”) because the apparatus is *already configured to* “receive” such information.⁴

⁴ Apple’s reliance on *Visible Connections* is also misplaced. Br. at 14 (citing *Visible Connections, LLC v. Zoho Corp.*, 418 F. Supp. 3d 155, 166 (W.D. Tex. 2019)). The claims in *Visible Connections* required “the user’s act of selection,” whereas the claims at issue here do not require any action from a “user.”

III. '502 PATENT DISPUTED TERMS

A. “A method of an on-demand system information (SI) request procedure performed by a user equipment (UE), the method comprising”, '502 Patent Claim 1

Togail's Proposed Construction	Apple's Proposed Construction
The preamble is not limiting except for “performed by a user equipment (UE)”	The preamble is limiting

Togail agrees that the preamble’s recitation of “performed by a user equipment (UE)” is limiting because it provides antecedent basis for later claim limitations. Thus, the only dispute is whether the phrase “of an on-demand system information (SI) request procedure” (“the ‘on-demand’ language”) is also limiting. Here, the “on-demand” language recites only an intended use of the invention and is therefore not limiting. *See TomTom*, 790 F.3d at 1323 (holding that when a phrase in the preamble “provides a necessary structure for [the claim] does not necessarily convert the *entire* preamble into a limitation, particularly one that only states the intended use of the invention”).

Apple does not contend that the “on-demand” language supplies antecedent basis for any limitations in the body of the claim. Rather, Apple merely contends that the preamble’s “characterization of the procedure provides essential structure.” Br. at 15. But the “on-demand” language merely refers to the environment in which the claimed method is meant to operate and is not a structural limitation. *See, e.g., Williams Mfg.*, 316 U.S. at 369 (stating that a patentee can reference “other mechanical parts” in describing the environment in which an invention is meant to “operate” without necessarily making those other parts elements of the claim). Moreover, the body of the claim defines all the steps of the claimed method such that the “on-demand” language merely states an intended use for the invention. *See Shoes by Firebug*, 962 F.3d at 1367 (“[A]

preamble is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.”).⁵

Contrary to Apple’s argument, a POSITA would understand that the body of Claim 1 defines a structurally complete invention. Madisetti Decl. ¶ 60. A POSITA would also understand that the “on-demand” language states an intended use for the invention and is not necessary to breathe life, meaning and vitality into the claimed invention. *Id.* Specifically, the body of the claim recites all the steps of the claimed method, and the “on-demand” language simply provides context, and indicates a potential use of the fully-articulated, linguistically-complete method. *Id.* Accordingly, the Court should adopt Togail’s construction that the “on-demand” language is not limiting.

B. “first SI request message including at least one requested system information block (SIB),” ’502 Patent Claims 1 and 11

Togail’s Proposed Construction	Apple’s Proposed Construction
No construction necessary	Indefinite
Plain and ordinary meaning	

Apple cannot meet its burden to prove indefiniteness by clear and convincing evidence. *See Sonix Tech.*, 844 F.3d at 1377. The disputed term must be examined through the viewing glass of a POSITA in light of the specification and dependent claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*). The ’502 Patent specification teaches the meaning of the disputed term with reasonable certainty, and Apple’s indefiniteness argument is contrary to the plain language of the claims. In light of the intrinsic evidence, a POSITA would understand that

⁵ Apple’s discussion of *Deere & Co.* is inapposite. Br. at 16 (citing 703 F.3d at 1357-58). Unlike in *Deere & Co.*, the “on-demand” language at issue here does not provide a “structural” limitation and does not provide antecedent basis. Apple’s argument that the preamble here recites “structure” is only relevant to the “user equipment (UE)” language and plainly does not apply to the “on-demand” language, which is not a structural limitation.

the disputed term means that the “first SI request message” is sent from the User Equipment (UE) to the network/base station (NW/BS) to request at least one system information block (SIB) that is to be transmitted by the NW/BS. Madisetti Decl. ¶ 66. Apple’s argument—that the plain language of the claim should be interpreted in a “nonsensical” manner where the request message must **contain** the SIB—seeks to read the term in isolation, divorced from the understanding of a POSITA, the specification, and the other claims. Apple’s approach to claim construction is contrary to well established Federal Circuit law and should be rejected. *See Neville v. Foundation Constructors, Inc.*, 972 F.3d 1350, 1357 (Fed. Cir. 2020) (“A claim construction that renders asserted claims facially nonsensical cannot be correct.”) (citation omitted).

A POSITA would understand the meaning of the term with reasonable certainty in light of the specification. *See Nautilus, Inc. v. Biosig Instrus., Inc.*, 572 U.S. 898, 908 (2014) (“[I]n assessing definiteness, claims are to be read in light of the patent’s specification and prosecution history.”). For example, the specification explains:

When a UE finds that a required SI message(s) is not broadcasted, based on information in the System Information Block Type 1 (SIB1) (e.g., a one-bit indicator that shows whether the corresponding SI message is currently broadcasted or not) and the mapping of the SIBs to SI messages, **the UE may perform an on-demand SI request procedure to ask the network (also referred to as NW) to broadcast the required SIB(s) and/or SI message(s).**

’502 Patent at 1:26-33. As such, the specification makes clear to a POSITA that the SIB is requested by the UE and broadcast by the network (base station). Madisetti Decl. ¶ 66. Indeed, Apple admits as much by stating that “[i]t would not make sense for an SI request message to include a requested system information block, because the SI request message is how a UE informs the network that it needs a certain SIB.” Br. at 17. Moreover, Apple admits that the “patent specification . . . never discloses an SI request message that includes the SIB being requested by that message.” *Id.* at 17-18. Thus, Apple’s nonsensical interpretation of the claim cannot be

correct because it would exclude every embodiment described in the specification. *See Epos Techs Ltd. v. Pegasus Techs.*, 766 F.3d 1338, 1347 (Fed. Cir. 2014) (“A claim construction that excludes a preferred embodiment is rarely, if ever correct and would require highly persuasive evidentiary support.”).⁶

Apple’s argument that “the claimed SI request message **must contain** the requested SIB” (Br. at 18) is illogical and contrary to the plain language of the claims—the claim does not state that the request message **contains** the SIB. Indeed, Apple admits that “[a] POSITA would understand that since this is a request for system information, including a request for one or more SIBs, the SI request would not itself contain any requested SIBs.” Br. at 17 (citing Valenti Decl. ¶ 39). The Federal Circuit has made clear that claim terms “are examined through the viewing glass of a person skilled in the art” and that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313. Thus, Apple’s own expert confirms that a POSITA would never interpret the claim language in the nonsensical manner argued by Apple when the term is read in light of the specification.

In addition, the dependent claims refute Apple’s argument. *See Phillips*, 415 F.3d at 1314 (“Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims.”). Claims 5 and

⁶ Apple’s citation of *Synchronoss* is distinguishable because the patentee in that case did not dispute that the claims contained an impossibility. *Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1366 (Fed. Cir. 2021). In contrast, the claim here does not contain an impossibility—it is at most ambiguous when considered in isolation from the specification. To the extent the Court finds the claim language ambiguous, it should be construed consistent with the specification to preserve its validity and Apple’s indefiniteness argument should be rejected. *See Ruckus Wireless, Inc. v. Innovative Wireless Sols., LLC*, 824 F.3d 999, 1004 (Fed. Cir. 2016) (“If, after applying all other available tools of claim construction, a claim is ambiguous, it should be construed to preserve its validity.”).

15 make clear that “the at least one requested SIB” (for which the antecedent basis is found in the disputed term) is received from the BS (base station) “in response to the first SI request message”:⁷

5. The method of claim 1, further comprising:

receiving, from the BS, the at least one requested SIB via dedicated signaling that is transmitted in response to the first SI request message.

Thus, the dependent claims further confirm that a POSITA would not understand Claim 1 to mean that the SI request message *contains* the “at least one requested SIB.” Madisetti Decl. ¶ 67.

Aside from Apple’s conclusory expert opinion that seeks to improperly interpret the disputed term in isolation while ignoring the highly relevant teachings in the specification, Apple cites no evidence to support its “nonsensical” interpretation of the plain claim language. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (“In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence.”). Accordingly, in light of the intrinsic record (which must be considered in assessing definiteness), a POSITA would not interpret the plain meaning of the claim to mean that the SI request message *contains* the requested SIB. Therefore, Apple’s indefiniteness argument should be rejected.

C. “transmitting a fourth SI request message to the BS after determining that the UE is not in the connected state”, ’502 Patent Claims 6 and 16

Togail’s Proposed Construction	Apple’s Proposed Construction
No construction necessary	Indefinite
Plain and ordinary meaning	

⁷ Notably, Apple’s expert agrees that “Claim 15 details how the requested SIB is sent to the UE.” Dkt. 49-9 at ¶ 47; *id.* at ¶ 49 (describing the step in claim 15 as “sending the SIB from the base station to the UE via dedicated signaling in response to a request”).

Apple cannot meet its burden to prove indefiniteness by clear and convincing evidence. *See Sonix Tech.*, 844 F.3d at 1377. Specifically, Apple argues that dependent Claims 6 and 16 of the '502 Patent are indefinite because they somehow “require a determination that the UE is both in a connected state and not a connected state—a contradiction.” Br. at 19. Apple is wrong. Apple’s argument is predicated on the assumption that the limitations of independent Claims 1 and 11 must be satisfied *at the same time* as the limitations of dependent Claims 6 and 16. But there is no requirement that the recited “user equipment (UE)” be simultaneously in a “connected state” and “not in a connected state.” Because a POSITA would understand that the “user equipment” can be in a “connected state” at one point in time and switch to a “not connected state” at another point in time, the meaning and scope of dependent Claims 6 and 16 are reasonably certain. Madisetti Decl. ¶ 74.

Claim 11 recites “[a] user equipment (UE), comprising ... transmitting a first SI request message to a base station (BS) after determining that the UE is in a connected state” Claim 1 recites the same limitation in the form of a method claim. As such, independent Claims 1 and 11 contemplate a series of operations occur “*after* determining that the UE is in a connected state....”

Conversely, dependent Claim 16 recites “[t]he UE of claim 11, *wherein the operations further comprise* ... transmitting a fourth SI request message to the BS after determining that the UE is not in the connected state.” Claim 6 recites the same limitations in the form of a method claim. To that end, dependent Claims 6 and 16 contemplate operations *subsequent* to those of independent Claims 1 and 11 and *after* a determination that “the UE is not in the connected state.”

A POSITA would understand that the operations recited in dependent Claims 6 and 16 occur at a different point in time from the operations recited in independent Claims 1 and 11. Madisetti Decl. ¶ 75. For example, the '502 Patent specification expressly contemplates that “[t]he

on-demand SI request procedure may be implemented *differently* for the UEs that are in *different Radio Resource Control (RRC) states*” and that a UE may “switch” in between “connected” and idle (“not connected”) states. ’502 Patent at 5:8-10, 7:61 – 8:39 (“A UE may also request the required SIB(s) or SI message(s) while the UE is in a connected state.... If there is no such a qualified cell or if the reestablishment is rejected/failed, the UE may switch to an idle state”); *see also id.* at 9:60 – 10:14, 10:51 – 11:26 (explaining “CASE 4: Harmonizing of the SI Request Messages in Idle, Inactive, and Connected States”).⁸ Ultimately, because (1) the claims contemplate that a once “connected” UE may later move to an “unconnected state” and (2) the recited operations occur only *after* determining the connectivity state of the UE, independent Claims 1 and 11 are not in “contradiction” with dependent Claims 6 and 16. Madisetti Decl. ¶ 75.

Apple’s argument that the claims are “similar to the dependent claims held indefinite in *Huawei Tech. Co.*” is unpersuasive. Br. at 19 (citing *Huawei Techs. Co. v. T-Mobile US, Inc.*, No. 2:16-CV-00055-JRG-RSP, 2017 WL 2190103, at *26 (E.D. Tex. May 17, 2017)). In *Huawei*, the independent claims required the presence of “address information,” while the dependent claims required that the “address information is empty” and the claim requirements could not be reconciled. *Id.* That is not the case here, where the difference in “connected” and “not connected” are easily explained by a difference in timing and the ability for the UE to move between “connected” and “not connected” states. *See, e.g.*, ’502 Patent at 5:8-10, 7:61 – 8:39, 9:60 – 10:14, 10:51 – 11:26. Likewise, Apple’s reliance on *Multilayer Stretch* is also inapposite because, there, the patentee argued for a claim construction that required the independent claim to require certain claimed layers comprised of a certain list of resins and did not dispute that the dependent claim

⁸ Indeed, Apple’s own expert agrees that “[a] POSITA would understand the distinct treatment of connected, idle, and inactive states in the ’502 patent to indicate that the states are distinct, and a UE does not exist in multiple states at the same time.” Dkt. No. 49-9 at ¶ 72.

recited a resin not in the list of resins required by the independent claim. *Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.*, 831 F.3d 1350, 1361-62 (Fed. Cir. 2016).

Accordingly, for all these reasons, Apple cannot meet its burden to demonstrate invalidity by clear and convincing evidence and its indefiniteness challenge fails.

D. “receiving, from the BS, the at least one requested SIB via dedicated signaling that is transmitted in response to the first SI request message”, ’502 Patent Claim 15

Togail’s Proposed Construction	Apple’s Proposed Construction
No construction necessary	Indefinite
Plain and ordinary meaning	

Apple cannot meet its burden to prove indefiniteness by clear and convincing evidence. *See Sonix Tech.*, 844 F.3d at 1377. Apple argues that Claim 15 is indefinite because it supposedly “improperly claims a mixed method and apparatus of the type prohibited by *IPXL*.” Br. at 20. Apple is wrong. Claim 15 recites functionality tied to the claimed apparatus (*i.e.*, “user equipment (UE)”). Madisetti Decl. ¶ 80. Specifically, Claim 15 recites that the “user equipment (UE)” is capable of “receiving, from the BS, the at least one requested SIB via dedicated signaling....” As such, the recited functionality is directly tied to the operation of the UE apparatus and is not indefinite under *IPXL*. *See UltimatePointer*, 816 F.3d at 827; *SFA Sys.*, 940 F. Supp. 2d at 454-55 (“If the functional language of the claim merely describes ‘the structure and capabilities of the claimed apparatus,’ then the claim is sufficiently definite under 35 U.S.C. § 112 ¶ 2”).

Dependent Claim 15 recites as follows:

15. The UE of claim 11, wherein the operations further comprise:

receiving, from the BS, the at least one requested SIB via dedicated signaling that is transmitted in response to the first SI request message.

As noted by the preamble, Claim 15 provides additional limitations on the “user equipment (UE)” apparatus claimed by independent Claim 11. Specifically, Claim 15 recites additional operations of the UE that are tied to the structures of the “at least one processor,” “one or more non-transitory computer-readable media,” and the corresponding “computer-executable instructions.” Claim 15 recites that the “computer-executable instructions” also perform the operation of “receiving ... the at least one requested SIB”, which is directly tied to the functionality of the UE apparatus and its structural components. Madisetti Decl. ¶ 81; *see also, e.g., MasterMine*, 874 F.3d at 1316; *Microprocessor Enhancement Corp.*, 520 F.3d at 1375; *Freeny v. Fossil Grp., Inc.*, No. 2:18-CV-00049-JRG-RSP, 2019 WL 2078783, at *24 (E.D. Tex. May 10, 2019) (“active functional language is properly used in apparatus claims to denote capability of the apparatus.”).

Apple complains that because the UE receives the requested SIB from the “BS” (base station), “the claim scope exceeds the apparatus and its capabilities, rendering the scope of potential infringement indefinite.” Br. at 21. Yet, Apple ignores that the key aspect of the limitation is that the UE be configured to “receive” the requested SIB—which is functionality of the “user equipment (UE)” apparatus. *See, e.g., MasterMine Software*, 874 F.3d at 1316; *Freeny*, 2019 WL 2078783, at *25 (holding claim not indefinite where “each verb in Claim 90 is tied to a structure”). Further, Claim 15’s reference to the “BS” (base station) merely establishes “the underlying network environment in which the [user equipment] operates.” *HTC Corp.*, 667 F.3d at 1277; Madisetti Decl. ¶ 82. Similar to the parties’ dispute concerning Claim 11 of the ’238 Patent, the parties’ dispute is analogous to the dispute in *HTC*, where the Federal Circuit held that a claim directed to a “mobile station” (*i.e.*, a “user equipment (UE)”—but also recited actions by a “base station”—was not indefinite under *IPXL* because the disputed functions performed by the network simply meant that the claimed apparatus “must be used in a particular network

environment.” *HTC Corp.*, 667 F.3d at 1277. Here too, Claim 15’s reference to the “BS” merely “relates to configuration and environmental requirements.” *Uniloc 2017 LLC v. Google LLC*, No. 2:18-CV-00493-JRG-RSP, 2020 WL 339802, at *30 (E.D. Tex. Jan. 20, 2020). Thus, infringement occurs when one makes, uses, offers to sell, or sells the claimed “user equipment (UE)” with the capabilities delineated in Claim 15. *See MasterMine*, 874 F.3d at 1315-16 (“Like the claims in *MEC*, *HTC*, and *UltimatePointer*, the claims at issue here merely claim that the system “possess[es] the recited structure [which is] capable of performing the recited functions.”); Madisetti Decl. ¶ 83.

For the reasons discussed in Section B.II, Apple’s cited authority is inapposite. Br. at 21-23. For example, Claim 15 of the ’502 Patent is not like the claim element at issue in *UltimatePointer*, which recited functionality required by a user—there is no such “user” implicated by Claim 15. 2013 WL 2325118 at *23 (a “pointing device” limitation invalid because the claim also “requir[ed] the user to use the pointing device.”). Contrary to Apple’s argument, the functionality of the claimed “user equipment (UE)” does not “depend on a method performed by the base station.” Br. at 22. Rather, the “user equipment (UE)” must be configured to “receive” the “at least one requested SIB” from a base station—it is the ability to “receive” that is required by Claim 15 and directly tied to the functionality of the UE.

Claim 15 is also not analogous to the issue in *Power Integrations*. Br. at 22 (citing 2018 WL 5603631 at *15-16). Contrary to Apple’s characterization, the issue in *Power Integrations* was not predicated on the fact that “the control signal was only provided ‘under certain conditions’”, *id.*—rather, the issue was that “[t]here [wa]s no recited structure in the claim that arguably provides that signal.” 2018 WL 5603631, at *17. Here, the Claim 15 is directly tied to the recited apparatus (“user equipment (UE)”) and the ability for its structural components to

“receive” the “at least one requested SIB.” And simply because Claim 15 recites that the “user equipment (UE)” operates in a network environment containing a “BS” (base station) does not transform the claim into an improper mixed apparatus/method claim. *See HTC*, 667 F.3d at 1277 (“If the network performs the functions, the claims are not indefinite because the claims merely describe the network environment in which the mobile station must be used.”). Accordingly, Apple’s indefiniteness challenge should be rejected.

IV. ’972 PATENT DISPUTED TERMS

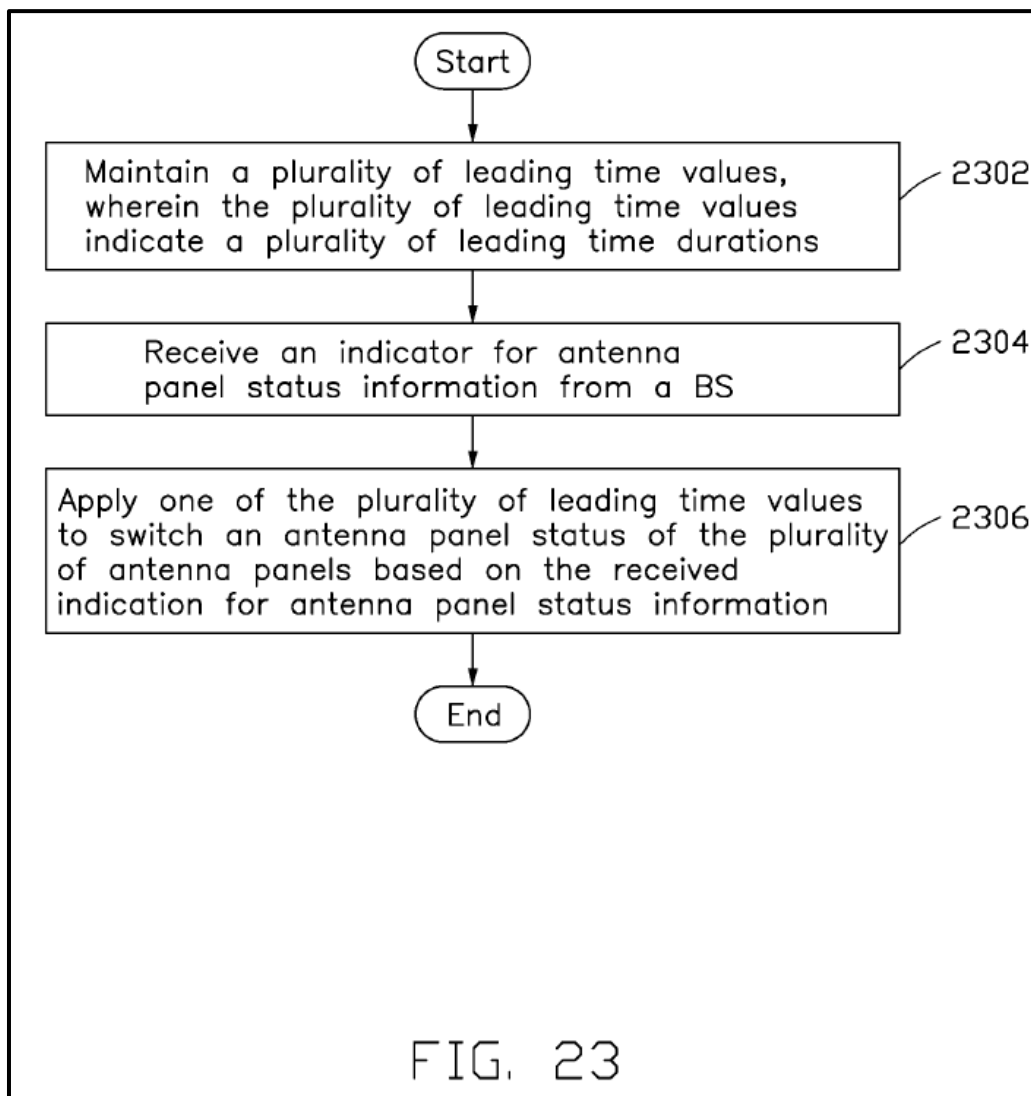
A. “leading time [value[s] / duration[s]]”, ’972 Patent Claims 1, 11, and 15

Togail’s Proposed Construction	Apple’s Proposed Construction
No construction necessary Plain and ordinary meaning	“[value[s] / duration[s]] for beam switching which are, or may reflect, the minimum required time for a UE to set up its antenna panel(s) for providing an indicated RX/TX beam to receive or transmit data”

Apple’s construction is based on a premise that is simply not true. Specifically, Apple alleges that the “’972 Patent does not mention ‘leading time’ in any context other than **beam switching**, and the intrinsic record does not suggest any other meaning.” Br. at 25. To the contrary, the specification consistently describes the disputed terms “leading time values” and “leading time durations” with respect to implementations that are **not** in the context of beam switching. To that end, a POSITA would understand that the disputed terms are not limited to the particular embodiment in the ’972 Patent related to the “leading time **for beam switching**” that Apple relies on for its alleged lexicography. Madisetti Decl. ¶ 87. Tellingly, Apple did not provide any evidence from a POSITA to support its incorrect premise—Apple’s expert did not opine on the ’972 Patent. Dkt. 49-9 ¶ 22. Accordingly, Apple’s lexicography argument should be rejected and the terms should be given their plain and ordinary meaning because there is no definition or disclaimer in the specification for the broader and different term “leading time value.” *See Toshiba*

Corp. v. Imation Corp., 681 F.3d 1358, 1369 (Fed. Cir. 2012) (“Absent disclaimer or lexicography, the plain meaning of the claim controls.”). Indeed, Apple admits that the terms have ordinary English meanings aside from the alleged lexicography. Br. at 26 (“the words ‘leading’ and ‘time’ are terms with ordinary English meanings”).

As one example, the specification includes an embodiment illustrated in Figure 23 that describes “leading time values” and “leading time durations” that are *not* in the context of beam switching:



With respect to the Figure 23 embodiment, the specification further explains the operation without any mention of “beam switching”:

FIG. 23 is a flowchart for a method of operating multiple antenna panels, in accordance with example implementations of the present disclosure.

In action 2302, a wireless communication device (e.g., a UE) may maintain a plurality of **leading time values**, wherein the plurality of leading time values may indicate a plurality of leading time durations.

In action 2304, the wireless communication device may receive an indicator for antenna panel status information from a BS.

In action 2306, the wireless communication device may apply one of the plurality of **leading time values** to switch an antenna panel status of the plurality of antenna panels based on the received indicator for antenna panel status information.

’972 Patent at 29:25-39. A POSITA would understand that the Figure 23 embodiment describes “leading time values” in the context of switching antenna panels on or off which is different than “beam switching.” Madisetti Decl. ¶ 88; *see also* ’972 Patent at 16:53-60. Thus, Apple’s construction would improperly exclude this preferred embodiment. *See Epos Techs*, 766 F.3d at 1347 (“A claim construction that excludes a preferred embodiment is rarely, if ever correct and would require highly persuasive evidentiary support.”).

Moreover, numerous other descriptions of the embodiments in the specification describe “leading time values” and “leading time durations” that are ***not*** in the context of beam switching:

- “Methods and apparatuses for operating multiple antenna panels are provided. The wireless communication device includes a plurality of antenna panels and a processor coupled to the antenna panels. The processor is configured to maintain a plurality of **leading time values**. The plurality of leading time values may indicate a plurality of **leading time durations**. The processor is further configured to receive an indicator for antenna panel status information from a base station, and apply one of the plurality of **leading time values** to switch an **antenna panel status** of the plurality of antenna panels based on the indicator for antenna panel status information.” ’972 Patent at Abstract.
- “According to an aspect of the present disclosure, a wireless communication device is provided. The wireless communication device includes a plurality of

antenna panels and a processor coupled to the antenna panels. The processor is configured to maintain a plurality of **leading time values**. The plurality of leading time values may indicate a plurality of **leading time durations**. The processor is further configured to receive an indicator for antenna panel status information from a base station (BS), and apply one of the plurality of **leading time values to switch an antenna panel status** of the plurality of antenna panels based on the indicator for antenna panel status information.” *Id.* at 1:44-55.

- “According to another aspect of the present disclosure, a method for operating a plurality of antenna panels is provided. The method includes maintaining, by a wireless communication device, a plurality of **leading time values**. The plurality of leading time values indicates a plurality of **leading time durations**. The method further includes receiving, by the wireless communication device, an indicator for antenna panel status information from a BS, and applying, by the wireless communication device, one of the plurality of **leading time values to switch an antenna panel status** of the plurality of antenna panels based on the indicator for antenna panel status information.” *Id.* at 1:56-67.
- “For example, the UE may be configured with two different **leading time values**. One leading time value may be 10 μ s, and the other one may be 3 ms. As noted above, **the UE may apply a first leading time when the UE needs to turn on a first number of antenna panel(s), and apply a second leading time when the UE needs to turn on a second number of antenna panel(s)**, where the first leading time is longer than the second leading time if the first number is greater than the second number.” *Id.* at 21:11-19.

In light of the teachings in the ’972 Patent specification, it is readily apparent that the sentence Apple identifies in the context of “the leading time for beam switching” refers to a specific use and embodiment in the context of beam switching that does not apply to the entirety of the specification or the claims. Madisetti Decl. ¶ 90. Hence, it is improper to apply the alleged lexicography to the **different and broader** term “leading time value” in the claims. *See Semcon IP Inc. v. Huawei Device USA Inc.*, No. 2:16-CV-00437-JRG-RSP, 2017 WL 2972193, at *17 (E.D. Tex. July 12, 2017) (“To begin, the Power-Management Patents do not include a definition of ‘sleep state.’ Rather, they include a definition of ‘deep sleep state.’”); *see also Phillips*, 415 F.3d at 1314 (noting that the use of the term “steel baffles” “strongly implies that the term ‘baffles’ does not inherently mean objects made of steel”).

In light of the specification, a POSITA would understand that the term “leading time for beam switching” has a more narrow meaning than the broader terms “leading time value” and “leading time duration.” Madisetti Decl. ¶ 91. Additionally, a POSITA would also understand that the disputed terms are not mere short-hand references to “leading time for beam switching.” *Id.* For example, the specification explains that the “leading time for beam switching” is specific to “*some implementations* of the present disclosure”:

As shown in FIG. 2, there is a time gap 21 between the time the UE receives the indicator for antenna panel status from the PDCCH 202 and the time the UE actually turns on the N2 antenna panels. **The time gap 21 may reflect the time required for the UE to turn on the antenna panel(s). In some implementations of the present disclosure, the time gap 21 may be deemed as the leading time for beam switching of the UE.**

’972 Patent at 14:31-38; *see also* 15:9-17; 15:45-50. A POSITA would understand the above quotation to mean that the “time gap 21” may correspond to a “leading time value” and that the “time gap 21” only corresponds to a “leading time for beam switching” in *some* embodiments. Madisetti Decl. ¶ 91. Accordingly, a POSITA would understand that a “leading time value” is not limited to a “leading time for beam switching” in *all* implementations or embodiments. *Id.*

Moreover, the specification consistently describes the “leading time for beam switching” as only applicable to some (but not all) of the implementations. *Id.* at ¶ 92. For instance, the passage below distinguishes the more general term “leading time value” from the more specific term “leading time for beam switching”:

In some implementations, there is only one leading time value for each DL/UL channel/RSs reception/transmission. Such a leading time value may be defined by the UE's capability for example. However, the above-mentioned mechanism may not be suitable for a situation where the UE needs a longer leading time for beam switching. Although the BS may configure the UE with a scheduling offset that is long enough to fulfill various leading times of different antenna panel statuses, such a configuration may cause some scheduling restrictions (e.g., because the UE may not always need to use a long leading time). Hence, in accordance with some implementations of the present disclosure, some techniques are

provided to improve scheduling flexibility and performance of beam switching.

'972 Patent at 16:28-41.

Accordingly, there is no lexicography for the disputed terms “leading time value” and “leading time duration.” Apple’s attempt to limit these terms to the specific embodiments in the context of “beam switching” is improper because the specification makes clear that there are other embodiments that are not in the context of “beam switching.”

V. CONCLUSION

For the forgoing reasons, Togail respectfully requests that the Court adopt its proposed construction for each of the disputed claim terms.

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CERTIFICATE OF SERVICE

I hereby certify that the counsel of record who are deemed to have consented to electronic service are being served on February 16, 2023 with a copy of this document via the Court's ECF system.

/s/ Drew Hollander

Drew Hollander