IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

VASU HOLDINGS, LLC	§	
	§	
v.	§	CASE NO. 2:24-CV-00034-JRG-RSP
	§	
SAMSUNG ELECTRONICS CO., LTD., and SAMSUNG ELECTRONICS AMERICA, INC.	§	

CLAIM CONSTRUCTION ORDER

On May 13, 2025, the Court held a hearing to determine the proper construction of disputed terms in United States Patents No. 8,886,181, 10,206,154, 10,368,281, and 10,419,996. Before the Court is the Opening Claim Construction Brief (Dkt. No. 49) filed by Plaintiff Vasu Holdings, LLC ("Plaintiff" or "Vasu"). Also before the Court are the Responsive Claim Construction Brief (Dkt. No. 54) filed by Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Defendants" or "Samsung"), Plaintiffs' reply (Dkt. No. 58), the parties' March 26, 2025 Joint Claim Construction and Prehearing Statement (Dkt. No. 50), and the parties' April 22, 2025 P.R. 4-5(d) Joint Claim Construction Chart (Dkt. No. 60).

Having reviewed the arguments made by the parties at the hearing and in their claim construction briefing, having considered the intrinsic evidence, and having made subsidiary factual findings about the extrinsic evidence, the Court hereby issues this Claim Construction Order. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc); *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

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I. BACKGROUND

Plaintiff alleges infringement of United States Patents No. 8,886,181 ("the '181 Patent"), 10,206,154 ("the '154 Patent"), 10,368,281 ("the '281 Patent"), and 10,419,996 ("the '996 Patent") (collectively, the "patents-in-suit" or the "Vasu Patents"). Dkt. No. 49, Exs. 1–4. Plaintiff submits that "[t]he Vasu Patents cover a variety of systems and techniques that allow a mobile device to switch from one network to another, such as from a WiFi network to a cellular network, without interrupting service to the mobile device." Dkt. No. 49 at 1 (footnotes omitted).

The '181 Patent, for example, is titled "Mobile Telephone VOIP/Cellular Seamless Roaming Switching Controller," issued on November 11, 2014, and bears an earliest priority date of January 6, 2004. The Abstract of the '181 Patent states:

> A nomadic server and a related system provides seamless roaming for a mobile communication device between different types of wireless networks, such as WiFi and cellular networks for voice, data and video communication. Use of the nomadic server enables a combination of WiFi and cellular networks for providing access to cellular phones and make [*sic*] use of the VOIP networks for switching the calls wherever possible. The nomadic server is a telephone communication processing and switching server that will "hold" the present, in-progress telephone communications without dropping, while roaming without losing the present, in-progress communication. For example, a telephone communication can be seamlessly switching between VOIP and cellular telephone networks using the nomadic server. Nomadic server resources interface with the VOIP and cellular network switches to provide the hand-off between networks. This approach enables switching of telephone communications over a VOIP network wherever possible either through WiFi or through cellular networks.

Plaintiff submits that "[t]he Vasu Patents stem from a common provisional application and are all related as continuations or continuations-in-part of the original application." Dkt. No. 49 at 2 (footnote omitted).

Shortly before the start of the May 13, 2025 hearing, as to most of the disputed terms the Court provided the parties with preliminary constructions with the aim of focusing the parties' arguments and facilitating discussion. Those preliminary constructions are noted below within the discussion for each term.

II. LEGAL PRINCIPLES

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). "In

some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period." *Teva*, 135 S. Ct. at 841 (citation omitted). "In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the 'evidentiary underpinnings' of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal." *Id.* (citing 517 U.S. 370).

To determine the meaning of the claims, courts start by considering the intrinsic evidence. *See Phillips*, 415 F.3d at 1313; *see also C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; *accord Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term's context in the asserted claim can be very instructive. *Id.* Other asserted or unasserted claims can aid in determining the claim's meaning because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term's meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* at 1315 (quoting *Markman*, 52 F.3d at 979). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *accord Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor's lexicography governs. *Id.* The specification may also resolve the meaning of ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex*, 299 F.3d at 1325. But, "[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *accord Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc. v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent."). "[T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance." *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985).

Although extrinsic evidence can be useful, it is "less significant than the intrinsic record in determining the legally operative meaning of claim language." *Phillips*, 415 F.3d at 1317 (citations and internal quotation marks omitted). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition are entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

The Supreme Court of the United States has "read [35 U.S.C.] § 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). "A determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus,* 134 S. Ct. 2120. "Indefiniteness must be proven by clear and convincing evidence." *Sonix Tech. Co. v. Publ'ns Int'l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

III. AGREED TERMS

In their March 26, 2025 P.R. 4-3 Joint Claim Construction and Prehearing Statement (Dkt. No. 50 at 1) and in their April 22, 2025 P.R. 4-5(d) Joint Claim Construction Chart (Dkt. No. 60,

Ex. A at 1), the parties submitted agreed-upon constructions, which are set forth in Appendix A to the present Claim Construction Order.

IV. DISPUTED TERMS

A. "interface server"

"interface server" ('181 Patent, Claims 1, 8, 9; '154 Patent, Claims 1, 43; '281 Patent, Claim 45; '996 Patent, Claim 39)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
"a server that allows for roaming between different wireless networks"	"a server that interfaces with the mobile communication device for roaming between different wireless networks"[1]

Dkt. No. 50, Ex. A at 1; Dkt. No. 54 at 1; Dkt. No. 60, Ex. A at 2.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary construction: "a server that interacts with multiple wireless networks such that a wireless communication device can roam between the wireless networks."

(1) The Parties' Positions

Plaintiff argues that "[h]ow this term is used in the specification and claims demonstrates that it is a server that allows roaming between different wireless networks." Dkt. No. 49 at 3 (citations omitted). Plaintiff also argues that Defendants' proposal is inconsistent with an embodiment disclosed in the specification. *See id.* at 5–6.

[1] Defendants previously proposed: "a server that interfaces with the mobile communication device over both the first [wireless] communication link and the second [wireless] communication link." Dkt. No. 50, Ex. B at 1.

Defendants respond by revising their proposed construction and by arguing that Plaintiff's proposal reads out the word "interface." Dkt. No. 54 at 2. Defendants also argue that "the language in the specification that Vasu relies on for its construction is not definitional and is taken out of context by Vasu." *Id.* at 4. Further, Defendants argue that Plaintiff's proposal is overbroad because, "[f]or example, a dormant server could simply do nothing and, in doing so, 'allow' roaming to occur." *Id.* at 5.

Plaintiff replies that Defendants' proposal of "interfaces with the mobile communication device" "is nonsensical because the '154 and '281 Patents do not have an antecedent basis for 'the mobile communication device.'" Dkt. No. 58 at 1. Plaintiff also argues that "Samsung's reliance on exemplary embodiments to show the purported requisite interface should not override the claim language itself." *Id.* at 2.

At the May 13, 2025 hearing, Plaintiff alternatively proposed: "a server that provides for roaming between different wireless networks"; or "a server that interacts with at least one communication network which allows a wireless communication device to roam between wireless networks."

(2) Analysis

The Summary of the Invention section of the '181 Patent states that an "interface server" is referred to as a "nomadic server":

> The present invention is directed to *an interface server, referred to as a nomadic server, and a related system that provides seamless roaming of a mobile communication device* between different types of wireless networks, such as WiFi and cellular networks for voice, data and video communication. *Use of the nomadic server enables a combination of WiFi and cellular networks for providing access to the mobile communication device* and makes use of the VOIP networks for switching the calls wherever possible.
>
> *The nomadic server is* a telephone communication processing and switching server that will "hold" the present, in-progress telephone communications without

> dropping, while roaming between WiFi access points and cellular networks, without losing the present, in-progress communication. For example, a telephone communication can be seamlessly switched between VOIP and cellular telephone networks using the nomadic server. *Nomadic server resources interface with the VOIP and cellular network switches to provide the hand-off between networks.* This approach enables switching of telephone communications over a VOIP network wherever possible either through WiFi or through cellular networks.

'181 Patent at 2:49–3:3 (emphasis added). The '154 Patent resulted from a continuation of the '181 Patent and thus also contains these same statements. '154 Patent at 2:54–3:8. The term "interface server" appears in the Detailed Description of the Invention section of the '996 Patent but does not appear in the '281 Patent. *See* '996 Patent at 8:5–9. The parties agreed at the May 13, 2025 hearing, however, that "interface server" should be given the same construction in all four of the patents-in-suit.

The patentee thus disclosed that "interface server" and "nomadic server" are synonymous, and the patentee set forth what a nomadic server "is." This usage of the word "is" weighs in favor of finding that the patentee defined the term. *Sinorgchem Co., Shandong v. Int'l Trade Comm'n*, 511 F.3d 1132, 1136 (Fed. Cir. 2007) ("the word 'is' may signify that a patentee is serving as its own lexicographer") (citation and internal quotation marks omitted). Also, the patentee set forth this statement in the Summary of the Invention section of the specification and with reference to "[t]he present invention," rather than with reference to a particular embodiment, which weighs further in favor of finding that the patentee defined the term. *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004) ("Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term"; "Statements that describe the invention as a whole are more likely to be found in certain sections of the specification, such as the Summary of the Invention.") (citations omitted).

Defendants argue that this disclosure sets forth a definition of what "[t]he nomadic server is," but Defendants submit that "[t]his definition, however, cannot be used as the construction because it includes terms that are not used in the various asserted claims," and "Samsung's construction adapts this definition to fit within the language in the asserted claims." Dkt. No. 54 at 2. Neither side proposes adopting the exact language that the patentee used to describe what a nomadic server "is," but these statements are noteworthy as framing a nomadic server in relation to multiple wireless networks and as providing for roaming. '181 Patent at 2:49–3:3.

The Detailed Description of the Invention of the '181 Patent is consistent with this understanding, further disclosing, for example:

> [T]he nomadic server 80 enables a seamless handoff from one wireless access point to another as the mobile telephone device 90 roams from one WiFi coverage area to another WiFi coverage area, or roams outside a WiFi coverage area but still within a cellular network coverage area.
>
> * * *
>
> In operation, a first call is established by the mobile communication device 90 by first determining if it is in a WiFi coverage area. Such a determination is preferably made by measuring a signal strength or other criteria of the nearest WiFi access point 40, and if the signal strength or other criteria is above a predetermined threshold, then a WiFi communication link is established. If WiFi access is not available, then the mobile communication device 90 establishes a cellular communication link with the nearest base station 10. When the mobile communication device 90 first establishes a WiFi communication link, the mobile communication device 90 establishes a communication link with the provisioning server 86 over the WiFi communication link. The WiFi communication link includes the WiFi access point 40, and the Internet 50. The provisioning server 86 provides the mobile communication device 90 with configuration information including an identification of its home nomadic server, which in this case is the nomadic server 80. The mobile communication device 90 preferably uses XML over SSL for communicating with the provisioning server 86 over the Internet 50.
>
> The mobile communication device 90 also registers with the nomadic server 80. * * *
>
> * * * When a signal strength or other criteria of the WiFi communication link weakens below a predetermined threshold, the mobile communication device 90

> notifies the nomadic server 80. In response, the nomadic server 80 stops sending location updates to the mobile switching center 20. Additionally, the mobile communication device 90 stops sending SIP registrations to the nomadic server 80, and the mobile communication device 90 initiates registration with the nearest mobile switching center. In this manner, subsequent calls originating from or terminating at the mobile communication device 90 are handled by the mobile switching center. . . .
>
> While the first call is still established over the WiFi communication link, the mobile communication device 90 sets up a second call to the same end destination as the first call currently setup over the WiFi communication link, thereby establishing a cellular communication link. . . . In response, the nomadic server 80 determines if the first call over the WiFi communication link is still in progress. If so, access is switched from the WiFi communication link to the cellular communication link.

'181 Patent at 7:22–27 & 8:9–9:16; *see id.* at Fig. 1; *see also id.* at 5:61–67 ("the nomadic server functions to 'hold' the current telephone communication while switching occurs").

As for Defendants' proposal of "interfaces with the mobile communication device," the specification discloses that "[n]omadic server resources interface with the VOIP and cellular network switches to provide the hand-off between networks." *Id.* at 2:65–67. Roaming can thus be provided by the interface server interacting with the different wireless networks. Defendants' proposal of "a server that interfaces with the mobile communication device" appears to require that the interface server must interact with the wireless communication device directly. Surrounding claim language in Claim 1 of the '181 Patent, for example, recites that "when the signal strength drops below a predetermined threshold, *notifying an interface server with the mobile communication device*," but presumably a notification could traverse multiple network elements rather than being provided directly, and, regardless, Defendants have not persuasively supported importing a "mobile communication device" limitation into the construction of "interface server" itself.

Finally, at the May 13, 2025 hearing, both sides were amenable to the Court's use of the word "interacts," which the Court used in its preliminary construction.

The Court therefore hereby construes "interface server" to mean **"a server that interacts with multiple wireless networks such that a wireless communication device can roam between the wireless networks."**

B. "context"

"context" ('154 Patent, Claims 1, 43; '281 Patent, Claims 1, 12, 23, 37, 45; '996 Patent, Claims 1, 12, 23, 25, 34, 35, 41)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
"strength of the signal and/or characteristics of the network"	Plain and ordinary meaning

Dkt. No. 50, Ex. A at 3; *id.*, Ex. B at 1; Dkt. No. 60, Ex. A at 2.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary construction: "strength of a signal and/or characteristics of a network."

(1) The Parties' Positions

Plaintiff argues that the specification defines this term. Dkt. No. 49 at 6. Plaintiff argues that "Samsung overlooks the specification's explicit definition of the 'context' in arguing the term should be given its plain and ordinary meaning," and "Samsung, however, has not provided what it believes is the plain and ordinary meaning of 'context,' presumably leaving this term to be dealt with later with expert reports, which is not appropriate." *Id.* at 6–7.

Defendants respond that the specification does not define this term but rather merely sets forth examples. Dkt. No. 54 at 7–8.

Plaintiff replies that the '996 Patent defines this term and that "[w]hile the '154 and '281 Patents do not use 'context' in their specifications, the specifications describe what is monitored—strength and other criteria related to the signal." Dkt. No. 58 at 2.

At the May 13, 2025 hearing, Defendants argued that Plaintiff's proposal is too narrow because there are relevant characteristics of a signal beyond merely its strength. Plaintiff responded that strength is the only relevant characteristic.

(2) Analysis

Claim 1 of the '154 Patent, for example, recites (emphasis added):

> 1. A method of providing communications for a mobile communication device that roams between multiple networks, the method comprising:
>
> establishing a first communication link between the mobile communication device and an end destination device, wherein the first communication link comprises a first communication link between the mobile communication device and a first network;
>
> monitoring a *context* of the first communication link;
>
> when a second *context* is preferred over the *context* of the first communication link, notifying an interface server and establishing a second communication link between the interface server and the end destination device without disrupting the first communication link, with a client;
>
> notifying the mobile communication device to terminate transmission over the first communication link; and
>
> re-directing the second communication link from the interface server to the mobile communication device, thereby establishing a second communication link between the mobile communication device and a second network, wherein the second network is within a set of known networks or from a newly discovered network.

The specification of the '996 Patent, for example, discloses:

> As described herein, the method of providing communications for a mobile communication device that roams between multiple wireless networks includes monitoring context of a signal of a wireless communication link. *Monitoring context of a signal is able to include* monitoring the strength of the (radio) signal and/or characteristics of the network (e.g., available speed/bandwidth, delays, congestion, power requirements, availability/type of encryption, cost, preference, policies, known versus not known, Quality of Service (QoS), Service Level Agreement (SLA), history and/or any other characteristics/context information).

'996 Patent at 7:42–52 (emphasis added).

This disclosure, which for example refers to what is "described herein" and what "[m]onitoring context" "is able to include," does not rise to the level of a definition because it does

not define the disputed term with "reasonable clarity, deliberateness, and precision sufficient to narrow the definition of the claim term in the manner urged." *Abbott Labs. v Syntron Bioresearch, Inc.*, 334 F.3d 1343, 1355 (Fed. Cir. 2003); *see Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1367–68 (Fed. Cir. 2012) ("Both [lexicography and disavowal] require a clear and explicit statement by the patentee.") (citations omitted).

Nonetheless, because the word "context" is used here not according to its meaning in common parlance but rather according to a specialized technical meaning, a construction will assist the finder of fact. *See Intervet, Inc. v. Merial Ltd.*, 617 F.3d 1282, 1287 (Fed. Cir. 2010) ("Idiosyncratic language, highly technical terms, or terms coined by the inventor are best understood by reference to the specification.") (citing *Phillips*, 415 F.3d at 1315).

Here, the specification, such as cited above, demonstrates that the patentee used "context" to refer to characteristics of a signal, characteristics of a network, or potentially both. The claims are consistent with this understanding, such as dependent Claims 26–28 of the '154 Patent, which recite:

> 26. The method of claim 1 wherein the context comprises a signal strength.
>
> 27. The method of claim 1 wherein the context comprises a signal strength and one or more additional criteria.
>
> 28. The method of claim 1 wherein the context comprises a criterion beside signal strength.

See also '996 Patent, Cls. 2, 4, 5 and 43 (similar); *id.*, Cl. 5 ("wherein the context comprises at least one of radio signal strength, available speed/bandwidth, delays, congestion, power requirements, availability of encryption, cost information, preference information, policy information, knowledge, quality of service information, service level agreement information, and history information"); *id.*, Cl. 43 (same); '281 Patent, Cl. 30 ("signal level"); *see* '154 Patent at

10:37–38 ("The mobile communication device monitors a signal strength or other criteria of the WiFi communication link."); *see also* '281 Patent at 3:12–17 & 4:43–49.

The Court therefore hereby construes "context" to mean **"characteristics of a signal and/or of a network."**

C. "establishing [a/the] second communication link between the interface [server] and [an/the] end destination device"

"establishing [a/the] second communication link between the interface [server] and [an/the] end destination device" ('181 Patent, Claim 1; '154 Patent, Claims 1, 43; '281 Patent, Claim 45; '996 Patent, Claims 39, 41)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"establishing [a/the] communication link between the interface [server] and [an/the] end destination device that is distinct from the first communication link"

Dkt. No. 50, Ex. A at 5 & 6; *id.*, Ex. B at 1–2; Dkt. No. 60, Ex. A at 2.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary construction: "establishing [a/the] communication link between the interface [server] and [an/the] end destination device that is distinct from the first communication link."

(1) The Parties' Positions

Plaintiff argues that these terms "simply require a communication link between the interface server (defined above) and an end destination device," and "[b]ecause the concept is straightforward, no construction of these terms is necessary." Dkt. No. 49 at 7. Plaintiff argues

that Defendants have no support for their proposal of requiring the end destination device to be "distinct." *Id.* at 8.

Defendants respond that "[d]uring prosecution of the '181 Patent, Vasu clearly and unmistakably disclaimed a second communication link that is the same as the first communication link." Dkt. No. 54 at 9.

Plaintiff replies that "[d]istinguishing prior art does not, by itself, amount to disclaimer and Vasu never defined this 'establishing' term or disclaimed any method for doing so." Dkt. No. 58 at 3. Plaintiff also submits: "Vasu agrees that the first and second communication links are 'different' communication links. What does not need to be different is the pathway for the communication between devices." *Id.* at 3–4.

At the May 13, 2025 hearing, the parties presented no oral arguments on these terms and instead rested on their briefing.

(2) Analysis

Plaintiff's expert cites disclosure in the specification that establishing the "first" and "second" communication links can both include the same type of routing:

> Establishing the first communication link can include routing through a VOIP network. Establishing the first communication link can include routing through a cellular network. Establishing the second communication link can include routing through a VOIP network. Establishing the second communication link can include routing through a cellular network.

'181 Patent at 3:26–32; *see* Dkt. No. 49, Ex. 5, Feb. 18, 2025 Cole Decl. ¶ 24.

Turning to the claim language, Claim 1 of the '181 Patent, for example, recites (emphasis added):

> 1. A method of providing communications for a mobile communication device that roams between multiple different types of wireless networks, the method comprising:

> *establishing a first communication link between the mobile communication device and an end destination device*, wherein the first communication link includes a first wireless communication link between the mobile communication device and a first type of wireless network;
>
> monitoring a signal strength of the first wireless communication link;
>
> when the signal strength drops below a predetermined threshold, notifying an interface server with the mobile communication device and *establishing a second communication link between the interface server and the end destination device* without disrupting the first communication link;
>
> notifying the mobile communication device to terminate transmission over the first communication link; and
>
> re-directing the second communication link from the interface server to the mobile communication device, thereby establishing a second wireless communication link between the mobile communication device and the second type of wireless network.

The use of "first" and "second" is "a common patent-law convention to distinguish between repeated instances of an element." *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003).

Moreover, during prosecution of the '181 Patent, the patentee explained that the second communication link is distinct from the first communication link. The Examiner rejected claim 1 as obvious based on the "Ibe" reference (United States Patent No. 8,041,360) in view of the "Belkin" reference (United States Patent No. 7,398,088). Dkt. No. 54, Ex. A, June 27, 2013 Office Action at 3. The patentee responded:

> [B]ecause this asserted second link 1002 [in Belkin] is actually just a rerouting of the first link 120, it is not a separate or second link, as claimed. Indeed, in order to emphasize this difference the Claims have been amended to recite "establishing a second communication link between the interface server and the end destination device <u>without disrupting the first communication link</u>." Neither Ibe nor Belkin teach to form such a second link while the first link between the mobile devices is not disturbed. Instead, Ibe does not teach forming a second link at all and Belkin disrupts the first link in order to create its "second link."
>
> * * *
>
> [A]ll that the above citation teaches is that the **<u>single</u>** connection between the peer CU 714 and the network switching function 710 is **<u>rerouted</u>** to the handover call port, not that a **<u>second</u>** connection is made between the peer CU714 and the network

> switching function 710. Rerouting a connection is not the same as establishing a second connection. As a result, Belkin does not teach establishing a **second** communication link between the interface server and the **end destination device** without disrupting the first communication link.

Id., Ex. B, Aug. 23, 2013 Patent Owner Arguments at 8 & 10 (emphasis in original); *see id.* at 10 ("Rerouting a connection is not the same as establishing a second connection.").

This prosecution history thus reinforces what is evident on the face of the claims, namely that the "first" and "second" communication links must be distinct from one another. *See 3M*, 350 F.3d at 1371 (quoted above). Defendants do not, however, demonstrate that this precludes these communication links from overlapping at all.

Any remaining dispute, such as regarding whether particular communication links are distinct from one another despite a particular overlap, is a factual question of infringement, not a legal question for claim construction. *See PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) ("after the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact"); *see also Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) ("[t]he resolution of some line-drawing problems . . . is properly left to the trier of fact") (citing *PPG*, 156 F.3d at 1355); *Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1318–19 (Fed. Cir. 2016) (citing *PPG*, 156 F.3d at 1355; citing *Acumed*, 483 F.3d at 806).

The Court therefore hereby construes this disputed term to mean **"establishing [a/the] communication link between the interface [server] and [an/the] end destination device that is distinct from the first communication link."**

D. "wherein upon activation of a timer, . . ."

"wherein upon activation of a timer, the switching system causes [the/a] second communication module to change state from a sleep mode to an active mode" ('281 Patent, Claims 1, 23, 37, 45)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"wherein the switching system causes [the/a] second communication module to change state from a sleep mode to an active mode at the time of activation of the timer"
"wherein upon activation of a timer, the [switching system/server/mobile communication device/interface] causes [the second/a/the Wi-Fi] communication module to change state from a sleep mode to a stand-by mode" ('996 Patent, Claims 1, 12, 23, 34, 35, 39, 41)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"wherein the [switching system/server/mobile communication module/interface] causes [the second/a/the Wi-Fi] communication module to change state from [a sleep mode to] a stand-by mode at the time of activation of the timer"
"wherein upon activation of a timer, a communication module of the second device changes state from a sleep mode to a stand-by mode" ('996 Patent, Claim 25)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"wherein a communication module of the second device changes state from a sleep mode to a stand-by mode at the time of activation of the timer"

Dkt. No. 50, Ex. A at 9; Dkt. No. 54 at 13; Dkt. No. 60, Ex. A at 2–4.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary constructions for these three disputed terms, respectively: "wherein a timer is activated and the switching system simultaneously begins to cause [the/a] second

communication module to change state from a sleep mode to an active mode"; "wherein a timer is activated and the [switching system/server/mobile communication device/interface] simultaneously begins to cause [the second/a/the Wi-Fi] communication module to change state from a sleep mode to a stand-by mode"; and "wherein a timer is activated and a communication module of the second device simultaneously begins to change state from a sleep mode to a stand-by mode."

In briefing, Plaintiff argued that "based on the intrinsic evidence, the plain and ordinary meaning of 'wherein upon activation of a timer' means that the timer is activated during the course of the switching states from sleep mode to active mode." Dkt. No. 49 at 9 (citation omitted). Plaintiff argued that "[b]ecause the specification describes changing from a sleep mode to an active mode based on the context, Samsung's proposed construction of changing from a sleep mode to an active mode 'at the time' the timer is activated is wrong." *Id.* at 10 (citation and footnote omitted); *see id.* at 11–12.

Defendants responded that "the specification directly ties the activation of the timer to changing the state/mode," and "[w]hile it is true that this portion of the specification qualifies this statement by saying 'in some embodiments,' every embodiment that involves switching from a sleep mode to a different mode starts this process at the time the timer is activated." Dkt. No. 54 at 13–14 (citations omitted). Defendants argued that "the Wi-Fi signal level monitor does two things at the same time: (1) activates the timer and (2) sends a signal that results in a change of states." *Id.* at 15; *see id.* at 14–15. Further, Defendants argued that their proposed constructions are consistent with the dictionary definitions of "upon" cited by Plaintiff. *Id.* at 15.

Plaintiff replied that "performing an action 'in the course of' something allows for intervening steps or delay," and "whereas Samsung's inclusion of 'at the time of' implies simultaneity, even the specification and claims do not have such requirements." Dkt. No. 58 at 4.

At the May 13, 2025 hearing, Plaintiff alternatively proposed construing these terms by replacing "upon" with "in the process or course of," and Defendants agreed. *See also* Dkt. No. 49 at 11; *see also* Dkt. No. 54 at 15. The Court therefore hereby construes these disputed terms as set forth in the following chart:

Term	Construction
"wherein upon activation of a timer, the switching system causes [the/a] second communication module to change state from a sleep mode to an active mode" ('281 Patent, Claims 1, 23, 37, 45)	**"wherein in the process or course of activation of a timer, the switching system causes [the/a] second communication module to change state from a sleep mode to an active mode"**
"wherein upon activation of a timer, the [switching system/server/mobile communication device/interface] causes [the second/a/the Wi-Fi] communication module to change state from a sleep mode to a stand-by mode" ('996 Patent, Claims 1, 12, 23, 34, 35, 39, 41)	**"wherein in the process or course of activation of a timer, the [switching system/server/mobile communication device/interface] causes [the second/a/the Wi-Fi] communication module to change state from a sleep mode to a stand-by mode"**
"wherein upon activation of a timer, a communication module of the second device changes state from a sleep mode to a stand-by mode" ('996 Patent, Claim 25)	**"wherein in the process or course of activation of a timer, a communication module of the second device changes state from a sleep mode to a stand-by mode"**

E. "determining a second context during the first time window" and "determining, with the server, a second signal level during the first time window"

"determining a second context during the first time window" ('281 Patent, Claim 12)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"the context is detected throughout the time window"
"determining, with the server, a second signal level during the first time window" ('281 Patent, Claim 31)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"the signal level is detected, with the server, throughout the time window"

Dkt. No. 50, Ex. A at 11 & 12; *id.*, Ex. B at 4; Dkt. No. 60, Ex. A at 5.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary construction for both of these terms: "Plain and ordinary meaning."

(1) The Parties' Positions

Plaintiff argues that "no construction is necessary as a jury will understand the concept of determining a signal level during a time window," and "[t]he specification confirms that 'during' means that the context (e.g. signal strength) can be determined any time within the time window, not throughout, and even allows for periodic or event-driven determinations of context." Dkt. No. 49 at 13 (citations omitted).

Defendants respond that "[d]etermining if a signal remains at or above a threshold requires measuring that signal throughout the time window." Dkt. No. 54 at 17.

Plaintiff replies that "[t]he term 'during' sets a temporal boundary, not a frequency requirement." Dkt. No. 58 at 4 (emphasis omitted). Plaintiff argues that "[t]he claims do not use

terms like 'constantly,' 'repeatedly,' or 'at all times,' and nothing in the specification suggests that sustained or uninterrupted monitoring is required in all instances." *Id.* at 5.

At the May 13, 2025 hearing, the parties reiterated their arguments.

(2) Analysis

The Brief Summary of the Invention section of the specification states:

> In accordance with the present invention, a mobile communication device is configured so as to automatically switch a communication that is already in progress using a wireless cellular network (hereinafter alternatively referred to as cellular network) to a wireless Voice over IP (VoIP) network or vice versa. The mobile communication devices is adapted to include, in part, a cellular communication module, a first antenna adapted to receive and transmit data between the mobile communication module and a cellular network, a Wireless Fidelity (Wi-Fi) communication module, a second antenna adapted to receive and transmit data between the Wi-Fi communication module and a VoIP network, a signal monitoring circuit, and a switching circuit adapted to switch an existing in-progress communication between the cellular communication module and the Wi-Fi communication module. The second antenna and associated circuitry are maintained in on-states continuously to monitor and detect Wi-Fi signals.
>
> If the mobile communication device is in an in-progress (i.e., pre-established) communication via its cellular communication module and through a cellular network, and the Wi-Fi antenna system detects a Wi-Fi signal having a first predefined level (strength), a timer disposed in the mobile communication device is activated to establish a first time window of a first predefined size. If the Wi-Fi signal level detected during the first time window *remains* equal to or greater than the first predefined level, at the expiration of the first time window, the switching circuit causes the in-progress communication to be switched from its cellular communication module to its Wi-Fi communication module and through a VoIP network without losing the in-progress communication.

'281 Patent at 2:36–67 (emphasis added); *see id.* at 6:17–22 ("During time window T_1, Wi-Fi antenna 2 together with Wi-Fi module 4 and Wi-Fi signal monitor 8 continue to monitor and detect the level of received Wi-Fi signal."); *see also id.* at 6:59–67 (same as to time window T_2).

Defendants emphasize the above-reproduced disclosure regarding whether a signal level "remains" equal to or greater than a predefined level, but although this disclosure is perhaps *consistent* with Defendants' proposal of "throughout the time window," Defendants do not

persuasively demonstrate that this requires such a narrow interpretation. Rather, as Plaintiff argues, the determination could simply be whether the signal remains equal to or greater than a predefined level *when measured*.

The Court therefore hereby expressly rejects Defendants' proposed constructions and thus rejects any interpretation that would require *continuously* monitoring. No further construction is necessary. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) ("Unlike *O2 Micro*, where the court failed to resolve the parties' quarrel, the district court rejected Defendants' construction."); *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015); *Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 977–79 (Fed. Cir. 2021).

The Court accordingly hereby construes these disputed terms to have their **plain meaning**.

F. "wherein a third predefined threshold value V_{th3} is smaller than V_{th2}"; "wherein a third predefined threshold value is smaller than a second predefined threshold value"

"wherein a third predefined threshold value V_{th3} is smaller than V_{th2}" "wherein a third predefined threshold value is smaller than a second predefined threshold value" ('281 Patent, Claims 1, 23, 31, 37, 45)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"[a/the] third predefined threshold [Vth3] smaller than [a second predefined value/Vth2] is used for signal monitoring during the second predefined window"

Dkt. No. 50, Ex. A at 13; *id.*, Ex. B at 4; Dkt. No. 60, Ex. A at 5.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning."

(1) The Parties' Positions

Plaintiff argues that this term "is simply a comparison of two thresholds." Dkt. No. 49 at 14. Plaintiff also argues that Defendants' proposal that the third predefined threshold must be "used for signal monitoring during the second predefined window" "is contrary to the intrinsic record." *Id.* Plaintiff urges: "The '281 Patent does not require the third predefined threshold to be used for signal monitoring during the second predefined window; rather, it could be during any time window." *Id.*

Defendants respond that "[b]oth the prosecution history and the specification confirm that Samsung's construction is correct: the third threshold value is used during the second predefined time window for signal monitoring." Dkt. No. 54 at 18.

Plaintiff replies that the prosecution history cited by Defendants "does not address nor suggest any specific time windows associated with the third threshold, such that there is no basis

to find that the third threshold implicitly requires an association with the second time window." Dkt. No. 58 at 6–7.

At the May 13, 2025 hearing, the parties reiterated their arguments.

(2) Analysis

Claim 1 of the '281 Patent, for example, recites (emphasis added):

> 1. A device comprising:
>
> a switching system to switch operation between a first communication module and a second communication module, wherein during an established communication if a context changes, the established communication is switched to a second communication over a second network, wherein switching is based on detecting a second context being preferred over the context within a set of networks, wherein upon activation of a timer, the switching system causes the second communication module to change state from a sleep mode to an active mode, wherein the timer is activated to establish a time window of a predefined size, wherein if a Wi-Fi signal monitor detects that a Wi-Fi signal level is below a second predefined threshold value V_{th2}, *the timer is activated to establish a second time window of a second predefined size T_2, wherein a third predefined threshold value V_{th3} is smaller than V_{th2}.*

The claim thus sets forth a series of "wherein" clauses without explicitly specifying whether any particular "wherein" clause pertains to the claim as a whole or pertains to a preceding "wherein" clause. The other claims here at issue are similar in this regard. *See* '281 Patent, Cls. 23, 31, 37 & 45.

The specification discloses:

> Once activated, timer unit 7 establishes a second time window of a second predefined size T_2, as shown in FIG. 3. During time window T_2, Wi-Fi antenna 2 together with Wi-Fi module 4 and Wi-Fi signal monitor 8 continue to monitor and detect the level of received Wi-Fi signal. If the Wi-Fi signal level detected during time window T_2 is equal to or greater than a third predefined threshold value V_{th3}, where V_{th3} is smaller than V_{th2}, the previously established VoIP communication continues without switching.
>
> If the Wi-Fi signal level detected during time window T_2 is smaller than V_{th3}, at the expiration of time window T_2, timer unit 7 is reset and activated to establishes [*sic*] a third time window of a third predefined size T_3, where T_3 is smaller than T_2. If

> the Wi-Fi signal level detected during time window T_3 is equal to or greater than V_{th3}, the previously established VoIP communication continues without switching.
>
> If the Wi-Fi signal level detected during time window T_3 is less than V_{th3}, at the expiration of time window T3, timer unit 7 sends a Wi-Fi tear-down signal and a cellular link-up signal to network switch unit 6. In response, network switch unit 6 sends the tear-down signal to Wi-Fi module 3, and sends the link-up signal to cellular module 4. Network switch unit 6 also instructs audio/video amplifier 5 to generate an audio/video alert signals [*sic*]. The generated audio alter signals [*sic*] is subsequently reproduced by speaker 21, and the generated video alert signal is subsequently reproduced by display monitor 22. The audio/video alert tones are adapted to notify the mobile communication device user of a network switch from Wi-Fi to cellular[.]

'281 Patent at 6:59–7:21; *see id.* at 5:14–20. Although the specification discloses an embodiment in which a third threshold value is used during a second time window, this is a specific feature of a particular disclosed embodiment that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323.

During prosecution, however, the patentee amended the claims and argued:

> The presently claimed invention teaches a Wi-Fi signal monitor that detects that a Wi-Fi signal level is equal to or greater than a third predefined threshold value V_{th3}. As described above, Jagadeesan, Krantz and their combination do not teach wherein if a Wi-Fi signal monitor detects that a Wi-Fi signal level is below a second predefined threshold value V_{th2}, the timer is activated to establish a second time window of a second predefined size T_2, wherein a third predefined threshold value V_{th3} is smaller than V_{th2}.

Id., Ex. F, Mar. 8, 2019 Remarks at 12; *see* Dkt. No. 54, Ex. E, Dec. 12, 2018 Amendments to the Claims at 2, 5 & 8–9.

The patentee thus relied on the disputed term and did so in relation to the "wherein" clause that precedes it. *See Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995) ("Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers.").

The Court therefore hereby construes these disputed terms as set forth in the following chart:

Term	Construction
"wherein a third predefined threshold value V_{th3} is smaller than V_{th2}"	**"wherein a third predefined threshold value V_{th3} smaller than V_{th2} is used for signal monitoring during the second predefined window"**
"wherein a third predefined threshold value is smaller than a second predefined threshold value"	**"wherein a third predefined threshold value smaller than a second predefined threshold value is used for signal monitoring during the second predefined window"**

G. "interface"

"interface" ('181 Patent, Claims 1, 8, 9; '154 Patent, Claims 1, 43; '281 Patent, Claim 45; '996 Patent, Claims 39, 41)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"a component that interfaces with the mobile communication device for roaming between different wireless networks"[2]

Dkt. No. 50, Ex. A at 14; *id.*, Ex. B at 4; Dkt. No. 60, Ex. A at 5.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary constructions:

[2] Defendants previously proposed: "a component that interfaces with the mobile communication device over both the first [wireless] communication link and the second [wireless] communication link." Dkt. No. 50, Ex. B at 4.

Term	Preliminary Construction
"interface" ('181 Patent, Claims 1, 8, 9; '154 Patent, Claims 1, 43; '281 Patent, Claim 45; '996 Patent, Claims 39)	No construction needed beyond construction of "interface server"
"interface" ('996 Patent, Claim 41)	"a component that interacts with multiple wireless networks such that a wireless communication device can roam between the wireless networks"

Plaintiff argued that "[t]here is no need to construe 'interface' in isolation outside of the term 'interface server." Dkt. No. 49 at 15.

Defendants responded that Claim 41 of the '996 Patent recites only "an interface," not "an interface server" like Claims 1, 8, and 9 of the '181 Patent, Claims 1 and 43 of the '154 Patent, Claim 45 of the '281 Patent, and Claim 39 of the '996 Patent. Dkt. No. 54 at 6. Defendants submitted: "The specification of the '996 Patent, however, never uses the term 'an interface' by itself as a component of the system. Rather, it is always used as part of the phrase 'interface server.'" *Id.* Defendants argued that "in the context of claim 41 of the '996 Patent, an 'interface' should be construed the same as 'interface server' . . ., but with the word 'component' instead of 'server.'" *Id.* at 7.

Plaintiff replied that "Samsung conflates 'interface' and 'interface server,' even though 'interface' appears as a stand-alone claim term in the '996 Patent." Dkt. No. 58 at 7. Plaintiff argued that "the '829 Provisional reflects the inventor's contemporaneous understanding of the claimed invention as used in the context of the '996 Patent." *Id.*

In all of the claims here at issue other than Claim 41 of the '996 Patent, the term "interface" appears as part of the larger term "interface server," which is a separate disputed term addressed above.

At the May 13, 2025 hearing, the parties reached agreement that "interface" in Claim 41 of the '996 Patent should have the same construction as "interface server" except that the word "server" should be replaced with the word "component."

The Court accordingly hereby construes "interface" in Claim 41 of the '996 Patent to mean **"a component that interacts with multiple wireless networks such that a wireless communication device can roam between the wireless networks."**

H. "wherein automatically switching is based on detecting the second context being preferred over the first context within a set of known networks or from a newly discovered network"

"wherein automatically switching is based on detecting the second context being preferred over the first context within a set of known networks or from a newly discovered network" ('996 Patent, Claims 12, 23, 25, 34)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	"wherein automatically switching is based on detecting the second context within a set of known networks being preferred over the first context or the second context from a newly discovered network being preferred over the first context"

Dkt. No. 50, Ex. A at 17; Dkt. No. 54 at 20; Dkt. No. 60, Ex. A at 6.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary construction: "wherein automatically switching is based on detecting either: the second context in a known network is preferred over the first context; or the second context in a newly discovered network is preferred over the first context."

(1) The Parties' Positions

Plaintiff argues: "Samsung's proposal merely rearranges the words of the claims and inserts that a newly discovered network must also be 'preferred' over the current context of the current network. However, this contradicts the plain reading of the claim language because the structure of the sentence makes clear that 'preferred' modifies 'a set of known networks.'" Dkt. No. 49 at 16–17.

Defendants respond that "[b]ecause this claim term is confusing, unclear, and susceptible to multiple interpretations, it needs to be construed," and "Samsung's construction is consistent with the intrinsic evidence." Dkt. No. 54 at 20 & 21. Defendants argue that Plaintiff "cites nothing in the patent to support its interpretation nor is there any disclosure that would allow the system to switch to a new network without regard to preference." *Id.* at 21.

Plaintiff replies: "Samsung misreads the grammatical structure of [this term] by suggesting that the phrase 'being preferred over the first context' applies both to 'a set of known networks' and 'a newly discovered network.' Properly read, however, the automatic switching can occur (1) when the second context is preferred over the first within known networks, or (2) when a second context is detected from a newly discovered network." Dkt. No. 58 at 7.

At the May 13, 2025 hearing, the parties presented no oral arguments on this term and instead rested on their briefing.

(2) Analysis

Claim 12 of the '996 Patent, for example, recites (emphasis added):

> 12. A method comprising:
> detecting a first context;
> detecting a second context; and
> automatically switching, with a server, a communication in progress via a wireless network to a communication via a network based on the second context, *wherein automatically switching is based on detecting the second context being*

> *preferred over the first context within a set of known networks or from a newly discovered network*, wherein upon activation of a timer, the server causes a communication module to change state from a sleep mode to a stand-by mode, and the server causes the communication module to change state from the stand-by mode to an active mode before a communication is switched to the communication module.

The specification discloses:

> A user or device may "know" certain networks (e.g., a user has already connected to the network previously or has placed the network in a "known" list), and other networks may not be known (e.g., have not been previously accessed), and known networks may receive priority or preference over unknown networks (e.g., by checking the "known" list and giving priority to networks found on the "known" list).
>
> * * *
>
> Context detection/determination is able to include monitoring/analyzing contexts of known networks (and any changes in contexts). For example, if the signal strength of a first network falls below the signal strength for a second network, then based on that context change, the communication is switched to the more optimal context. Context detection/determination is also able to include detection/determination of *a new network which has a new, more favorable context*. For example, if a communication is using Network 1 of five known networks, and then Network 6 is detected which has a higher context (e.g., signal strength) than Network 1, the communication is switched to Network 6.

'996 Patent at 7:60–66 & 8:64–9:9 (emphasis added).

Thus, although the disputed term is not a model of clarity, the specification provides context for understanding that a newly discovered network can have a "context" and that the disputed term refers to automatically switching when: the context in a known network is preferred over the context of the current network; or the context in a newly discovered network is preferred over the context of the current network.

The Court therefore hereby construes "wherein automatically switching is based on detecting the second context being preferred over the first context within a set of known networks or from a newly discovered network" to mean **"wherein automatically switching is based on**

detecting either: the second context in a known network is preferred over the first context; or the second context in a newly discovered network is preferred over the first context."

I. "if a signal monitor detects that the alternative signal level is below a second predefined threshold value"

"if a signal monitor detects that the alternative signal level is below a second predefined threshold value" ('281 Patent, Claim 31)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	Indefinite

Dkt. No. 50, Ex. A at 8; *id.*, Ex. B at 2; Dkt. No. 60, Ex. A at 6.

Shortly before the start of the May 13, 2025 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning. [Note: In Claim 31 of the '281 Patent, the antecedent basis for 'the alternative signal level' is the recital of 'an alternative signal level' in the preceding limitation.]"

(1) The Parties' Positions

Plaintiff argues that the claims and the specification provide context for understanding this term. *See* Dkt. No. 49 at 18–19.

Defendants respond that "[t]his limitation is indefinite because the antecedent basis for 'the alternative signal' is unclear and uncertain." Dkt. No. 54 at 22.

Plaintiff replies that "'the alternative signal' is simply one of many potential 'alternative Wi-Fi signal[s]' the system is monitoring during an ongoing communication to determine if switching to the alternative signal's source is appropriate." Dkt. No. 58 at 9.

At the May 13, 2025 hearing, the parties presented no oral arguments on this term and instead rested on their briefing.

(2) Analysis

Claim 31 of the '281 Patent recites:

> 31. A method comprising:
>
> determining, with a server, a first signal level;
>
> activating, with the server, a timer to establish a first time window of a first predefined size T1 if the detected first signal level is greater than a first predefined threshold value;
>
> determining, with the server, a second signal level during the first time window;
>
> if the second detected signal level falls below the first predefined threshold value, then searching for *alternative Wi-Fi signals having signal level* above the first predefined threshold value, with the server;
>
> if *an alternative signal level* is above the first predefined threshold value, then switching a Wi-Fi communication in progress to a source of the alternative Wi-Fi signal, with the server; and
>
> if *no alternative signal level* is above the first predefined threshold value, then switching a Wi-Fi communication in progress to the wireless network, with the server, wherein *if a signal monitor detects that the alternative signal level is below a second predefined threshold value*, a timer is activated to establish a second time window of a second predefined size, wherein a third predefined threshold value is smaller than a second predefined threshold value.

The explicit antecedent basis for "*the* alternative signal level" is the recital of "*an* alternative signal level" in the preceding limitation. *See Baldwin Graphic Systems, Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1343 (Fed. Cir. 2008) (discussing "the use of a definite article ('said' or 'the') to refer back to an initial indefinite article").

Defendants argue that another possible antecedent basis is the recital of "no alternative signal level [that] is above the first predefined threshold," but Defendants' arguments are unpersuasive. Dkt. No. 54 at 23–24. In particular, Defendants do not demonstrate that a recital of an absence of something can provide antecedent basis for a presence of something.

The Court therefore hereby expressly rejects Defendants' indefiniteness argument. Defendants present no alternative proposed construction, and no further construction is necessary.

The Court accordingly hereby construes this disputed term to have its **plain meaning**.

J. "the first communication link"

"the first communication link" ('154 Patent, Claims 1, 43)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Plain and Ordinary Meaning	Indefinite

Dkt. No. 50, Ex. A at 18; *id.*, Ex. B at 6; Dkt. No. 60, Ex. A at 6.

(1) The Parties' Positions

Plaintiff argues that this term is clear as used in the claims and that Defendants ignore context provided by the claims and the specification. Dkt. No. 49 at 19–23. For example, Plaintiff argues that "[a] POSITA would understand that the 'first communication link' is the same link recited throughout the claim because wireless communication links necessarily involve a network," and Plaintiff argues that "[t]he specification further demonstrates that there is only one 'first communication link' because it describes the first communication link as including both a connection between the mobile device and a network and a connection between the mobile device and the end destination." *Id.* at 21 (citations omitted).

Defendants respond that these claims *twice* recite "*a* first communication link" and that it is unclear which one provides the antecedent basis for "*the* first communication link." Dkt. No. 54 at 24.

Plaintiff replies that "a POSITA would understand the claims to be reciting the steps of the method that a first communication link between the mobile communication device and a first network would take until it reaches the end destination device." Dkt. No. 58 at 9. Plaintiff argues that "the first use of 'a first communication link' is the antecedent basis for 'the first communication link' and the subsequent uses of 'the communication link' are the same." *Id.* at 10.

At the May 13, 2025 hearing, Plaintiff reiterated its arguments that the plain language of these claims supports finding that the recitals of "the first communication link" throughout the claims are readily understood as referring to the overall link and would not be understood as referring to the second recital of "a first communication link," which is merely a part of the overall link.

(2) Analysis

Defendants argue that indefiniteness arose as a result of amendment, where during prosecution the claims originally recited "a first communication link between the mobile communication device and an end destination device" and "a first *wireless* communication link between the mobile communication device and a first network," and the patentee amended to remove the word "wireless," such as follows (additions underlined; deletions in strikethrough):

> 1. (currently amended) A method of providing communications for a mobile communication device that roams between multiple ~~wireless~~ networks, the method comprising:
>
> establishing a first communication link between the mobile communication device and an end destination device, wherein the first communication link comprises a first ~~wireless~~ communication link between the mobile communication device and a first ~~wireless~~ network;
>
> monitoring a ~~signal strength~~ context of the first ~~wireless~~ communication link;
>
> when a second context is preferred over the context ~~signal strength drops below a threshold~~, notifying an interface server and establishing a second communication link between the interface server and the end destination device without disrupting the first communication link, with the client;
>
> notifying the mobile communication device to terminate transmission over the first communication link; and
>
> re-directing the second communication link from the interface server to the mobile communication device, thereby establishing a second ~~wireless~~ communication link between the mobile communication device and a second ~~wireless~~ network, wherein the second context is within a set of known networks or from a newly discovered network.

Dkt. No. 54, Ex. I, Jan. 12, 2018 Amendments to the Claims at 2.

Claim 1 of the '154 Patent, for example, recites (emphasis added):

> 1. A method of providing communications for a mobile communication device that roams between multiple networks, the method comprising:
>
> *establishing a first communication link between the mobile communication device and an end destination device, wherein the first communication link comprises a first communication link between the mobile communication device and a first network;*
>
> monitoring a context of *the first communication link*;
>
> when a second context is preferred over the context of *the first communication link*, notifying an interface server and establishing a second communication link between the interface server and the end destination device without disrupting *the first communication link*, with a client;
>
> notifying the mobile communication device to terminate transmission over *the first communication link*; and
>
> re-directing the second communication link from the interface server to the mobile communication device, thereby establishing a second communication link between the mobile communication device and a second network, wherein the second network is within a set of known networks or from a newly discovered network.

Plaintiff argues that the "first communication link between the mobile communication device and a first network" is part of the "first communication link between the mobile communication device and an end destination device" and not a separate and distinct link from the overall first communication link.

At first blush, this appears consistent with general principles of antecedent basis. *See Baldwin*, 512 F.3d at 1343 (discussing "the use of a definite article ('said' or 'the') to refer back to an initial indefinite article"). Also, the specification discloses, for example:

> In other words, if the mobile communication device 90 is located within a WiFi coverage area, then the first leg of the call is routed over a WiFi communication link and the remaining portion of the call can be routed over either the cellular network, the VOIP network, or the PSTN.

'154 Patent at 8:11–16; *see id.* at 8:1–26.

Uncertainty arises, however, because even if the antecedent basis for "the first communication link" is deemed to be the recital of "a first communication link between the mobile communication device and an end destination device," the subsequent phrase—"wherein the first

communication link comprises a first communication link between the mobile communication device and a first network"—includes an additional recital of "a first communication link."

In light of this, Defendants persuasively argue that it is unclear "whether 'a context of the first communication link' refers to the entire link from the mobile communication device to the end destination device, or the subset of that link that extends only to the first network, and whether 'notifying the mobile communication device to terminate transmission over the first communication link' requires a notification relating to the link with the end device or the link with the network." Dkt. No. 54 at 26; *see id.* at 26–27 (discussing, e.g., '154 Patent at 3:12–22). The opinions of Plaintiff's expert to the contrary are unpersuasive. Dkt. No. 49, Ex. 5, Feb. 18, 2025 Cole Decl. ¶¶ 47–49.

The *Alterna* case cited by Plaintiff is unpersuasive. In *Alterna*, the Northern District of California rejected an indefiniteness challenge involving a recital of "a unit" that itself included "a unit." These recitals were followed by a recital of "the unit." *Alterna* noted that "antecedent basis problems do not automatically invalidate a claim" and found that, in the particular claim at issue, "the unit" would be understood as referring to the first recital of "a unit." *Alterna Corp. v. PACT XPP Techs., AG*, No. 14-CV-02868-JD, 2015 WL 4999952, at *14–*15 (N.D. Cal. Aug. 21, 2015) (Donato, J.) For purposes of the analysis in the present case, though, *Alterna* at most merely demonstrates that, as a general matter, a claim might not be indefinite if the context for antecedent basis is reasonably clear.

In the present case, as to the particular claim language here at issue, the antecedent basis is not reasonably clear and therefore the claim does not "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus*, 134 S. Ct. at 2129.

The Court therefore hereby finds that **Claims 1 and 43 of the '154 Patent are indefinite.**

V. CONCLUSION

The Court adopts the constructions set forth in this Order for the disputed terms of the patent-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

SIGNED this 19th day of May, 2025.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE

APPENDIX A

Term	Parties' Agreement
"A method of providing communications for a mobile communication device that roams between multiple different types of wireless networks, the method comprising:" ('181 Patent, Claim 1)	"Preamble is limiting"
"A method of providing communications for a [mobile] communication device that roams between multiple networks, the method comprising:" ('154 Patent, Claims 1, 43)	"Preamble is limiting"

Dkt. No. 50 at 1; Dkt. No. 60, Ex. A at 1.