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

WIRELESS ALLIANCE, LLC,	§	
	§	
Plaintiff,	§	
	§	
v.	§	
	§	
AT&T MOBILITY LLC, AT&T SERVS., INC.,	§	
and AT&T CORP.,	§	NO. 2:23-CV-00095-RWS-RSP
	§	
Defendants,	§	
	§	
NOKIA OF AMERICA CORPORATION	§	
and ERICSSON, INC.,	§	
	§	
Intervenors.	§	

CLAIM CONSTRUCTION ORDER

In three consolidated patent cases,[1] Wireless Alliance, LLC, alleges infringement by AT&T, T-Mobile, and Verizon (along with various affiliated companies) of claims from United States Patents 9,144,106, 9,565,662, and 10,045,383. Nokia and Ericsson have intervened in each case. For simplicity, however, the Court refers collectively to the various defendants and intervenors as "Defendants."

The parties present a single claim-construction dispute concerning the '106 Patent and the '662 Patent, which are related and have a common specification.[2] Specifically, Defendants challenge Claim 3 of each patent as inconsistent with the claim from which it depends, and therefore

[1] The member cases are No. 2:23-CV-00096 and No. 2:23-CV-00097.

[2] *See* '662 Patent at [63] (noting application no. 14/831,023, from which the '662 Patent issued, is a continuation of application no. 13/884,216, from which the '106 Patent issued).

indefinite. Having considered the parties' briefing and arguments of counsel during an April 10, 2024 hearing, the Court concludes Defendants have not met their burden of showing indefiniteness.

I. BACKGROUND

The patents address a problem of inconsistency of carrier states when a "secondary carrier" is deactivated. '106 Patent at 1:66–2:4. The problem arises when using the LTE-Advanced mobile communication standard, which divides 100 MHz of bandwidth into component carriers (CCs) of, for example, 20 MHz each. *See id.* at 1:39–44. The base station can communicate with terminals using multiple CCs, but that require more power than using only one CC. *Id.* at 1:46–48 (noting "[t]he wider a frequency bandwidth for use in communication, the higher the power consumption"). Accordingly, an LTE-Advanced terminal uses multiple carriers during times of high traffic, but otherwise uses a single carrier. *Id.* at 1:48–51. This, however, requires reliable and stable carrier deactivation procedures so all network elements know when a particular secondary carrier is no longer being used by the base station. *See id.* at 2:6–9 (noting the invention aims to provide a method where the carrier states are consistent between the base station and terminals).

Generally, the patents describe the methodology to address the problem as (1) having the base station transmit a deactivation message for a secondary carrier to a terminal and (2) changing, at the base station, the secondary-carrier status to "deactivated" after a predetermined time from the transmission of the deactivation message. *See* '106 Patent at [57]. When the terminal receives the deactivation message, it also considers the secondary carrier "deactivated" after a predetermined time from the transmission of the deactivation message. *Id.*

This general description closely tracks the broadest claim language. Claim 1 of each patent, which are almost identical, recites:

Wireless Alliance, Ex. 2007
T-Mobile USA, Inc., etc. v. Wireless Alliance, LLC, IPR2024-00608

The ’106 Patent	**The ’662 Patent**
1. A carrier management method of a base station for use in a carrier aggregation environment, comprising:	1. A carrier management method of a base station for use in a carrier aggregation environment, comprising:
transmitting a deactivation message for a secondary carrier to a terminal;	transmitting a deactivation message for a secondary carrier to a terminal;
changing the secondary carrier to a deactivation state **after** a predetermined time from the transmission of the deactivation message; and	changing the secondary carrier to a deactivation state **based on** a predetermined time from the transmission of the deactivation message; and
stopping downlink (DL) transmission of the secondary carrier and initializing uplink (UL) and DL **retransmission** buffers after transmitting the deactivation message.	stopping downlink (DL) data transmission of the secondary carrier and initializing uplink (UL) and DL buffers associated with the secondary carrier after transmitting the deactivation message.

’106 Patent at 16:17–26 (emphasis added); ’662 Patent at 16:61–17:4 (emphasis added). Claim 3 of each patent then recites:

> 3. The carrier management method of claim 1, further comprising:
>
> receiving a reception success message for the deactivation message from the terminal after transmitting the deactivation message,
>
> wherein the changing of the secondary carrier to the deactivation state includes changing, by the base station, the secondary carrier to the deactivation state after a predetermined time from an arrival time of the reception success message.

’106 Patent at 16:32–41; ’662 Patent at 17:60–18:19.

The parties present a single claim-construction dispute. Specifically, Defendants assert Claim 3 of each patent cannot be reconciled with its associated Claim 1 and is therefore invalid.

II. GENERAL LEGAL STANDARDS

A. Generally

"[T]he claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). As such, if the parties dispute the scope of the claims, the court must determine their meaning. *See, e.g.*, *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1317 (Fed. Cir. 2007) (Gajarsa, J., concurring in part); *see also Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996), *aff'g*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc).

Claim construction, however, "is not an obligatory exercise in redundancy." *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). Rather, "[c]laim construction is a matter of [resolving] disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims . . . ." *Id.* A court need not "repeat or restate every claim term in order to comply with the ruling that claim construction is for the court." *Id.*

When construing claims, "[t]here is a heavy presumption that claim terms are to be given their ordinary and customary meaning." *Aventis Pharm. Inc. v. Amino Chems. Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013) (citing *Phillips*, 415 F.3d at 1312–13). Courts must therefore "look to the words of the claims themselves . . . to define the scope of the patented invention." *Id.* (citations omitted). The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1313. This "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." *Id.*

Intrinsic evidence is the primary resource for claim construction. *See Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1348 (Fed. Cir. 2010) (citing *Phillips*, 415 F.3d at 1312). For certain claim terms, "the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Phillips*, 415 F.3d at 1314; *see also Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) ("We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history."). But for claim terms with less-apparent meanings, courts consider "those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean . . . [including] the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Phillips*, 415 F.3d at 1314.

B. Indefiniteness

"[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc*., 572 U.S. 898, 901 (2014). The claims "must be precise enough to afford clear notice of what is claimed" while recognizing that "some modicum of uncertainty" is inherent due to the limitations of language. *Id.* at 908. "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).

"A dependent claim that contradicts, rather than narrows, the claim from which it depends is invalid." *Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.*, 831 F.3d 1350,

1362 (Fed. Cir. 2016). "'[W]here . . . claims are susceptible to only one reasonable interpretation and that interpretation results in a nonsensical construction of the claim as a whole, the claim must be invalidated . . . .'" *Id.* (quoting *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357 (Fed. Cir. 1999)).

III. THE LEVEL OF ORDINARY SKILL IN THE ART

The level of ordinary skill in the art is the skill level of a hypothetical person who is presumed to have known the relevant art at the time of the invention. *In re GPAC*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In resolving the appropriate level of ordinary skill, courts consider the types of and solutions to problems encountered in the art, the speed of innovation, the sophistication of the technology, and the education of workers active in the field. *Id.* Importantly, "(a) person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

Here, neither party presents a proposed level of ordinary skill in the art for analysis.

IV. THE DISPUTED TERM

A. "wherein the changing of the secondary carrier to the deactivation state includes changing, by the base station, the secondary carrier to the deactivation state after a predetermined time from an arrival time of the reception success message" ('106 Patent, Claim 3; '662 Patent, Claim 3)

Plaintiff's Position	Defendants' Position
Plain and ordinary meaning	Indefinite

Defendants' argument is simple. Claim 1 of each patent requires "changing the secondary carrier to a deactivation state after [or based on] a predetermined time from the transmission of the deactivation message," '106 Patent at 16:21–23; '662 Patent at 16:65–67, shown below on the left as the difference between times t_5 and t_1. But Claim 3 of each patent requires the base station to receive a "reception success message" from the terminal, and *then* change the secondary carrier to

the deactivation state after "a predetermined time from an arrival time of the reception success message," '106 Patent at 16:37–41; '662 Patent at 17:15–19, shown below on the right as the difference between times t_5 and t_4. Defendants suggest each Claim 3 cannot be reconciled with its associated Claim 1 and is therefore invalid. *See generally* Dkt. No. 68 at 5–10.

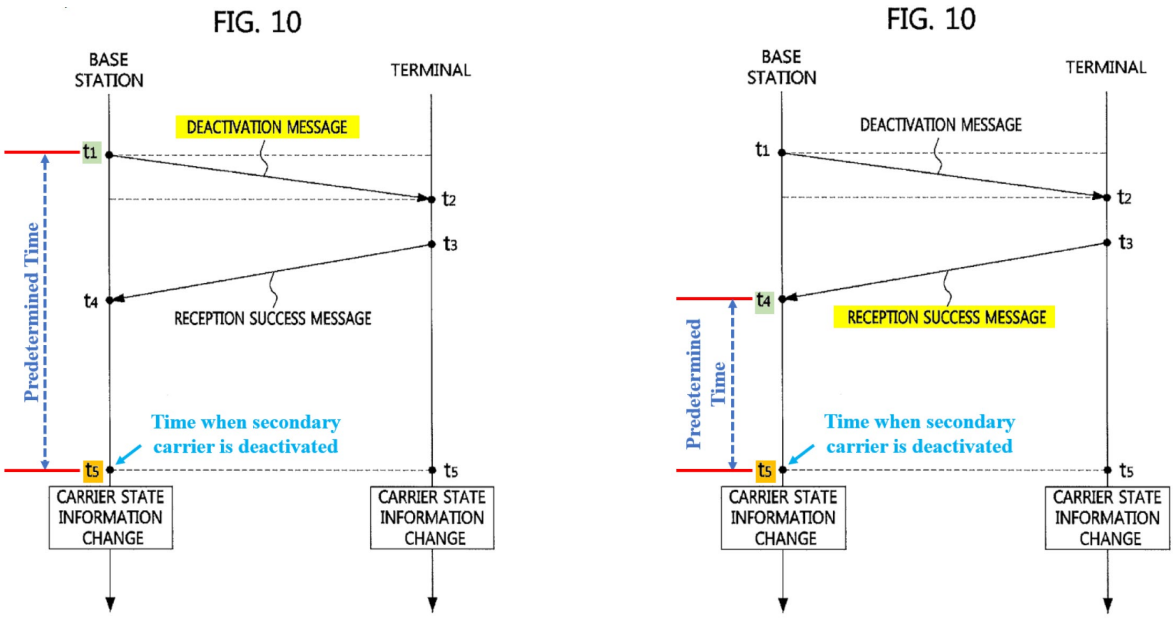

FIG. 10 as annotated by Defendants. *See* Dkt. No. 68 at 2, 4.

Plaintiff criticizes Defendants' argument as "assum[ing] that the 'predetermined time' must be determined using a simple timer with a hard-coded time-lapsed value." Dkt. No. 71 at 1. "[T]he claims," say Plaintiff, "only require that the time be . . . determined by the system at or before the time when the deactivation message is sent (for claim 1) or the reception success message is received (for claim 3)." *Id.* It also asserts a "predetermined time" could be "an amount of time calculated when the deactivation message is sent," "the timing of the occurrence of a particular event," or "a combination of things (like the timing of the occurrence of an event plus a certain amount of additional time)." *Id.*

To start, the Court rejects Plaintiff's assertion that a "predetermined time" can be the

occurrence of an event. Not only is that position inconsistent with the ordinary meaning of a "time," but the claim language itself shows otherwise by reciting that the state change occurs after a predetermined time *from an event*—the transmission of the "deactivation message" (in Claim 1) or the arrival time of the "reception success message" (in Claim 3). Similar language is used throughout the disclosure, as is the description of the "time" as a value. *See, e.g.*, '106 Patent at [57] ("[A] base station is configured to transmit a deactivation message for a secondary carrier to a terminal and change the secondary carrier to a deactivation state *after a predetermined time from the transmission of the deactivation message*." (emphasis added)); *id.* at 2:21–23 (noting the technical solution to the problem includes "changing the secondary carrier to a deactivation state after a predetermined time from the transmission of the deactivation"); *id.* at 2:24 ("the predetermined time may be a value"). In fact, the specification discloses using a "predetermined *timer*" to determine "whether or not to change the secondary-carrier state to the deactivation state." *Id.* at 2:57–59; *see also id.* at 3:37–39 (same). And notably, Plaintiff presents no evidence a person of ordinary skill would understand "predetermined time" to mean an "event."

Plaintiff also argues a system implementing Claim 3 could change the secondary carrier to the deactivation state either after sending the deactivation message (as recited in Claim 1) *or* after arrival of the reception message. *See* Hr'g Tr., Dkt. No. 78 at 19:16–23 (suggesting Claim 3 could be infringed even if the state change happens before the time set out in the claim). That argument tracks one that might be made for how a system capable of implementing the method might be programmed. *See id.* at 31:20–32:10 (asserting the benefits of a system that could change the secondary-carrier state a predetermined time after either sending the "deactivation message" or receiving the "reception success message"). But the claims at issue are method claims, and "[i]t is well established that a patent for a method or process is not infringed unless all steps or stages of

the claimed process are utilized." *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005). Accordingly, the Court also rejects any notion that Claim 3 is an alternate set of limitations to Claim 1.

Regardless, the disputed claim language is not indefinite. Based on the plain language of the claims and referring to Figure 10, the state change shown at time t_5 could fall after both recited predetermined times. Challenged with that possibility at the hearing, Defendants argued Claim 3 requires a *second* change to the secondary carrier to the deactivation state—that is, a different change from the one recited in Claim 1. *See* Hr'g Tr., Dkt. No. 78 at 14:20–16:3. But nothing in the specification shows two "changes" to the carrier state, nor would two "changes" be necessary to solve the stated problem. Moreover, nothing in the plain language of Claim 3 requires reading the change in carrier status as a different change than recited in Claim 1.

Defendants also argue the specification teaches two mutually exclusive embodiments—one for the state change of Claim 1 and one for the state change of Claim 3. Specifically, Defendants point to the specification's explanation that, "[o]n the other hand"—that is, as opposed to the embodiment in which the secondary carrier is changed a predetermined time after sending the "deactivation message"—the base station may change the carrier state after receiving the "reception success message." Hr'g Tr., Dkt. No. 78 at 11:6–13 (citing '106 Patent at 13:21–39). But the cited passage notes that both (t_5–t_4) and (t_5–t_1) may be defined.[3] *See* '106 Patent at 13:38–39. Regardless, that there might be an alternative embodiment outside the court's claim construction does not outweigh the claim language, "especially when the court's construction is supported by the intrinsic evidence." *August Tech. Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1285 (Fed. Cir. 2011).

[3] In Figure 10, (t_5–t_4) is the time between the "carrier state information change" and receiving the "reception success message" (as recited in Claim 3 of each patent), and (t_5–t_1) is the time between the change and sending the "deactivation message" (as recited in Claim 1 of each patent).

Based on the intrinsic record, the plain language of each Claim 3 requires that the secondary carrier be deactivated after (or, in the '662 Patent, "based on") a first predetermined time from transmission of the "deactivation message" *and* after a second predetermined time from receiving the "reception success message." Although that is a narrow requirement, it is not an indefinite one. Accordingly, the Court will give this term a "plain and ordinary meaning" construction.

V. CONCLUSION

The Court **ORDERS** each party not to refer, directly or indirectly, to its own or any other party's claim-construction positions in the presence of the jury. Likewise, the Court **ORDERS** the parties to refrain from mentioning any part of this opinion, other than the actual positions adopted by the Court, in the presence of the jury. Neither party may take a position before the jury that contradicts the Court's reasoning in this opinion. Any reference to claim construction proceedings is limited to informing the jury of the positions adopted by the Court.

SIGNED this 24th day of April, 2024.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE