Apple Inc. v. WI-LAN Inc., et al Doc. 203

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

APPLE INC., Plaintiff, vs. WI-LAN, INC., Defendant. AND ALL RELATED COUNTERCLAIMS.	CASE NO. 14cv2235 DMS (BLM) **ORDER CONSTRUING CLAIMS**

This matter came before the Court for a claim construction hearing on October 30, 2017. John Allcock and Sean Cunningham appeared and argued on behalf of Apple and Allison Goddard, Kevin Schubert, Robert Cote and Seth Hasenour appeared and argued on behalf of Wi-LAN. After the matter was submitted, Apple filed a Notice of Supplemental Evidence Regarding Claim Construction, to which Wi-LAN filed a response. After a thorough review of the parties' claim construction briefs and all other material submitted in connection with the hearing, the Court issues the following order construing the disputed terms of the patents at issue in this case.

I.

BACKGROUND

This case is related to another case, involving the same parties, which was previously adjudicated by this Court, *Wi-LAN v. Apple*, Case Number 13cv0798. That

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case involved two Wi-LAN Patents, United States Patents Numbers 8,311,040 ("the '040 Patent") and 8,315,640 ("the '640 Patent"). The Court construed the claims of the '040 Patent and the '640 Patent and then granted summary judgment of noninfringement to Apple. After that ruling, the parties stipulated to entry of final judgment so that Wi-LAN could appeal. On appeal, Wi-LAN challenged this Court's claim construction ruling, specifically the Court's constructions of the term "specified connection" in the '040 Patent and the term "UL connections" in the '640 Patent. The Federal Circuit affirmed the Court's constructions and the grant of summary judgment of noninfringement to Apple.

After the Court's claim construction ruling but before Apple filed its motion for summary judgment in the prior case, Apple filed the present case against Wi-LAN in the United States District Court for the Northern District of California alleging declaratory judgment claims for noninfringement and invalidity of five other Wi-LAN Patents, United States Patents Numbers 8,462,723 ("the '723 Patent"), 8,615,020 ("the '020 Patent"), 8,457,145 ("the '145 Patent"), 8,462,761 ("the '761 Patent") and 8,537,757 ("the '757 Patent"). Apple later filed an amended complaint adding the '040 Patent to the case. Shortly before this Court issued its summary judgment ruling in the prior case, the Northern District of California transferred this case to this Court. After Wi-LAN filed its appeal, Apple moved to stay this case pending that appeal, which the Court granted. After the appeal was decided, the stay was lifted and this case was put back on the Court's calendar.

Pursuant to Patent Local Rule 4.2.a, the parties have identified eight terms or groups of terms for construction in this case:

(1) "wireless subscriber unit"/ "subscriber unit"/ "subscriber station," which terms appear in the '145 Patent, '723 Patent, '020 Patent, '761 Patent and '757 Patent;

(2) "connections"/ "uplink connections"/ "a plurality of connections served by the subscriber unit/connections established at a [or the] subscriber unit [or

subscriber station]," which terms appear in the '145 Patent, '723 Patent, '020 Patent, '761 Patent and '757 Patent;

(3) "queue," which term appears in the '145 Patent, the '723 Patent, the '761 Patent and the '020 Patent;

(4) "packing sub-header," which term appears in the '040 Patent;

(5) "frame map"/ "sub-frame map," which terms appears in the '723 Patent, '020 Patent and the '757 Patent;

(6) "poll-me bit"/ "poll-me message," which terms appear in the '020 Patent;

(7) "fairness algorithm," which appears in the '145 Patent; and

(8) whether the preamble in Claim 26 of the '145 Patent is limiting.[1]

II.

DISCUSSION

The first four terms and groups of terms were at issue, or are similar to terms that were at issue, in the prior case. For that reason, Wi-LAN argues relitigation of these terms is barred by the doctrine of issue preclusion. The Court addresses that argument first, then turns to the construction of the claim terms and groups of terms.

A. Issue Preclusion

The term "issue preclusion" encompasses the doctrine once known as "collateral estoppel." *Taylor v. Sturgell*, 553 U.S. 880, 892 n.5 (2008). "Issue preclusion ... bars successive litigation of an issue of fact or law actually litigated and resolved in a valid court determination essential to the prior judgment ... ." *Id*. at 893 (internal quotation marks and citations omitted).

Issue preclusion, of course, is not unique to patent cases. *Aspex Eyewear, Inc. v. Zenni Optical Inc.*, 713 F.3d 1377, 1380 (Fed. Cir. 2013). Accordingly, the Federal Circuit is "guided by the precedent of the regional circuit. However, for any aspects

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[1] The parties initially requested that the Court also construe the term "QoS," but they have since agreed on the construction of that term.

that may have special or unique application to patent cases, Federal Circuit precedent is applicable." *Id*.

In the Ninth Circuit, issue preclusion applies when:

> (1) the issue necessarily decided at the previous proceeding is identical to the one which is sought to be relitigated; (2) the first proceeding ended with a final judgment on the merits; and (3) the party against whom issue preclusion is asserted was a party or in privity with a party at the first proceeding.

Paulo v. Holder, 669 F.3d 911, 917 (9th Cir. 2011) (internal quotation marks, citation and brackets omitted). The party asserting issue preclusion bears the burden of showing these elements are met. *Offshore Sportswear v. Vuarnet Int'l, B.V.*, 114 F.3d 848, 850 (9th Cir. 1997).

Wi-LAN has not met that burden here. First, for the first two terms, Wi-LAN has not shown the terms at issue here are identical to the terms at issue in the prior case. In the prior case, the Court construed the terms "wireless subscriber radio unit," "wireless communication radio unit" and "UL connections." The terms at issue here are similar, "subscriber unit," "wireless subscriber unit," "subscriber station," "connections," "uplink connections," "a plurality of connections served by the subscriber unit" and "connections established at a subscriber unit," but they are not identical to the terms construed in the prior case. Thus, issue preclusion does not apply to the first two groups of terms.

The term "queue" is identical to a term that was at issue in the prior case, but Wi-LAN has not shown the parties actually litigated that term. Rather, the parties stipulated to the construction of that term in the prior case. Thus, Wi-LAN has not shown this term is subject to issue preclusion.

The final term, "packing sub-header," was at issue in the prior case and was actually litigated. However, Wi-LAN has not shown that term was "necessarily decided" in the prior case. Indeed, the term played no part in the Court's summary judgment ruling, judgment thereon and subsequent appeal. Accordingly, "packing sub-header" is not subject to issue preclusion either.

For these reasons, the Court declines to apply issue preclusion to the above terms.

B. Claim Construction

Claim construction is an issue of law, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996), and it begins "with the words of the claim." *Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1142 (Fed. Cir. 2005) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Generally, those words are "given their ordinary and customary meaning." *Id.* (citing *Vitronics*, 90 F.3d at 1582). This "'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.'" *Id.* (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)). "The person of ordinary skill in the art views the claim term in the light of the entire intrinsic record." *Id.* Accordingly, the Court must read the claims "'in view of the specification, of which they are a part.'" *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). In addition, "'the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.'" *Id.* (quoting *Phillips*, 415 F.3d at 1318).

1. "Subscriber" Terms

The first group of terms at issue here are the "subscriber" terms, "wireless subscriber unit," "subscriber unit" and "subscriber station," which terms appear in the '145 Patent, '723 Patent, '020 Patent, '761 Patent and '757 Patent. In each of the Patents, the "subscriber" terms are described as part of a method or system of allocating, requesting or obtaining bandwidth from a base station. The parties agree these terms should be construed consistently across the Patents. Apple proposes they be construed as "fixed or portable customer premises equipment that wirelessly receives UL bandwidth from a base station, and allocates the bandwidth across connected user devices." Wi-LAN proposes that the terms be construed as a "module that receives UL

bandwidth from a base station, and allocates the bandwidth across its user connections." As is evident from the parties' proposals, they agree the subscriber units receive UL bandwidth from a base station and allocate that bandwidth elsewhere. The disputes are two-fold: (1) Whether the subscriber unit/station should be construed as "fixed or portable customer premises equipment" or as a "module," and (2) whether the bandwidth is allocated to "connected user devices" or "user connections."

a. CPE or Module

In the prior case, there was a similar issue with respect to the terms "wireless subscriber radio unit" and "wireless communication radio unit," with Apple arguing that these units were equivalent to customer premises equipment or CPEs and Wi-LAN arguing to the contrary. The Court agreed with Wi-LAN and refused to limit these units to CPEs. Wi-LAN argues the Court should adopt that approach here, and for the following reasons, the Court agrees.

First, Wi-LAN did not use the term "CPE" in the patent claims at issue here. Rather, the claims recite "subscriber units" or "subscriber stations." As Apple pointed out in its responsive brief, Wi-LAN used the term "CPE" in the claims of two of its prior patents. (*See* Decl. of Peter Maggiore in Supp. of Apple's Responsive Br., Ex. 1 at 21; Ex. 2 at 51.[2]) Its decision not to use that term here counsels against construing the "subscriber" terms as CPEs.

Second, although the specifications are rife with the term "CPE," the patent claims "will not be confined to that example 'unless the patentee has demonstrated a clear intention to limit the claim scope using words or expression of manifest exclusion or restriction.'" *Aria Diagnostics, Inc. v. Sequenom, Inc.*, 726 F.3d 1296, 1302 (Fed. Cir. 2013) (quoting *Liebel Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)). There is no evidence of that intent here. To the contrary, and as stated above,

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[2] The page numbers cited reflect the numbers assigned by the parties.

the claims recite "subscriber units" and "subscriber stations," as does the specification. (*See* '723 Patent at 1:28-60.)[3]

Third, the prosecution history of the '723 Patent reveals the Examiner treated the "subscriber" terms at issue here as interchangeable with the "subscriber" terms at issue in the prior case. (*See* Index of Exs. in Supp. of Wi-LAN's Opening Br., Ex. G at 51.) There, the Court declined to limit the subscriber terms to CPEs, and for the reasons set out there and above, the Court declines to do so here.

b. User Devices or User Connections

Turning to the second issue, Apple also fails to cite any evidence to support its proposed construction of the terms to require the allocation of bandwidth across "connected user devices." The claims themselves do not use this language, but instead use the term "connections," ('761 Patent at 38:35-37; '020 Patent at 38:40-44; '723 Patent at 23:11-13; '145 Patent at 32:57-59; '757 Patent at 4:33-41), which is consistent with Wi-LAN's proposal.

For these reasons, the Court adopts Wi-LAN's proposed construction for the "subscriber" terms.

2. "Connections" Terms

The next group of terms is the "connections" terms, which are "connections," "uplink connections," "a plurality of connections served by the subscriber unit" and "connections established at a [or the] subscriber unit [or subscriber station]," which terms appear in the '145 Patent, '723 Patent, '020 Patent, '761 Patent and '757 Patent. As with the "subscriber" terms, the parties agree the "connections" terms should be

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[3] Inherent in Apple's understanding of a "CPE" is that it is fixed or portable, but not mobile. The specification does not limit "subscriber units" or "subscriber stations" in that way, however. (*See id.* at 1:28-38) ("Exemplary communication systems include mobile cellular telephone systems, personal communication systems (PCS), and cordless telephones.") Furthermore, the Examiner of the '020 Patent read the invention claimed therein on prior art that included a "cellular telephone network." (*See* Index of Exs. in Supp. of Wi-LAN's Opening Br., Ex. I at 75, Ex. J at 92.) Thus, this evidence also refutes Apple's proposal to construe the "subscriber terms" as CPEs.

construed consistently across the Patents. Apple proposes the terms be construed as "wired or wireless connections between the subscriber station and its connected user devices," while Wi-LAN proposes the terms be construed as "connections between the subscriber unit and its users."

Although the common term here is "connections," the real dispute centers on the meaning of "users." Consistent with its argument on the "subscriber" terms, Apple argues "users" must be separate user devices, while Wi-LAN urges a broader meaning. This dispute is similar to one raised in the prior case, namely whether the "connections" identified in the Patents can be included in one device or must be in different devices. In the prior case, the Court found the "connections" did not have to be in different devices, *i.e.*, that there could be multiple "connections" in one device. Apple attempts to move the Court away from its prior construction, but the intrinsic evidence it cites is not persuasive.[4]

Based on the specification, the Court agrees with Wi-LAN's proposed construction of the "connection" terms. Although the specification describes "users" to "include both residential and business customers," ('723 Patent at 2:10-12), it also recites "user applications." (*Id.* at 6:63-67.) The specification also goes on to describe different types of "connections," *e.g.*, VBR connections and DAMA connections, (*id.* at 20:6-8), which suggests the "users" are not confined to "user devices." For these reasons, the Court adopts Wi-LAN's proposed construction of the "connections" terms.

3. "Queue"

The next term is "queue," which appears in the '145 Patent, the '723 Patent, the '761 Patent and the '020 Patent. Apple proposes the Court construe the term as

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[4] Apple's reliance on the Federal Circuit's opinion in the prior case as support for its proposed construction of the "connections" terms, which reliance was first disclosed at the *Markman* hearing, is also unpersuasive. The issue here, whether the "connections" are between the subscriber station and "users" or "user devices," was not before the Federal Circuit. Thus, any reference to "user devices" in that opinion is neither helpful nor determinative of the issue here.

"buffer(s), each associated with a unique QoS, containing data to be transmitted."[5] Wi-LAN proposes the term be construed as "structure(s) containing data to be transmitted."

The term "queue" was at issue in the prior case, and the parties agreed it should be construed as "structure(s) containing data to be transmitted." Apple argues for a different construction in this case, but the intrinsic evidence it relies on does not support its proposed construction. On the contrary, the intrinsic evidence supports Wi-LAN's proposed construction. For instance, Claim 1 of the '723 Patent describes a "queue," and then modifies it with the phrase "based on the quality of service (QoS) of the data." (*Id.* at 23:11-13.) Apple's proposed construction would make that modifier redundant. Thus, the Court adopts Wi-LAN's proposed construction of "queue."

4. "Packing Sub-Header"

The next term is "packing sub-header," which appears in the '040 Patent. Apple proposes the Court construe this term as "a header located in a PDU payload." Wi-LAN proposes the term be construed as it was in the prior case as "a header located in a PDU."

Although issue preclusion does not bar relitigation of the construction of this term, the Court is not persuaded that its prior construction is incorrect. The Court thoroughly considered this issue in the prior case, and stands on that construction for the reasons set out there and because Apple presents no new evidence to warrant a departure from the prior construction. Thus, the Court adopts Wi-LAN's proposed construction of this term.

5. "Frame Map/Sub-Frame Map"

The next two terms are "frame map" and "sub-frame map," which appear in the '723 Patent, the '020 Patent and the '757 Patent. Apple proposes these terms be construed as "a single data structure that allocates physical slots for bandwidth grants

[5] On the Friday before the *Markman* hearing, the parties submitted an Amended Joint Claim Construction Statement, Chart and Worksheet. In that pleading, the parties informed the Court they had agreed on the construction of "QoS," and Apple amended its proposed constructions of three terms: "queue," frame/sub-frame map and poll-me bit/message. The proposals cited here are the amended proposals.

to individual subscriber stations, and that contain all UL or DL bandwidth grants for an entire [frame/sub-frame]." Wi-LAN proposes the terms be construed as "control information indicating the bandwidth allocated to a subscriber unit(s) in the uplink or downlink communications link within a frame."

The specification supports both sides' proposals, namely that the frame/sub-frame maps may both allocate bandwidth (Apple) and indicate bandwidth allocations (Wi-LAN). (*Compare* '723 Patent at 4:12-23, 9:27-29, 10:4-6, 12:9-13, 21-24, 15:7-9, 13-15, 30-41, 16:56-59, 17:14-15, 63-18:2, 19:23-29, 22:37-38 (stating frame/sub-frame maps allocate bandwidth) *with* 13:58-60, 14:25-27 (stating frame/sub-frame maps "communicate" and "indicate" bandwidth allocations.) However, neither side's proposal allows for both of those possibilities. Because each side places a limitation on the terms that is not supported by the specification, the Court declines to adopt either proposal. Rather, the Court finds each proposal includes some concepts that should be included in the proper construction of the terms. Thus, the Court construes frame/sub-frame maps as "data structures that may allocate bandwidth to subscriber station(s) and indicate the bandwidth allocated to subscriber unit(s) within a particular frame/sub-frame."

6. "Poll-Me Bit/Poll-Me Message"

The next two terms are "poll-me bit" and "poll-me message," which terms are found in the '020 Patent. Apple proposes these terms be construed as "[a bit/bits] in a MAC packet utilized to indicate to the base station that the subscriber station requires a change in UL bandwidth allocation." Wi-LAN proposes the terms be construed as "a bit sent by a currently active subscriber unit, that currently has bandwidth allocations, indicating a request to be provided an allocation of UL bandwidth in which to transmit a bandwidth request."

Of these two proposals, Wi-LAN's is more consistent with the specification. The specification confirms that "poll-me bits" and "poll-me messages" must come from "currently active" users, and "currently active" users are users that already have

bandwidth allocations. (*See* '020 Patent at 11:15-26, 11:45-29, 13:7-14, 19:45-48, 37:41-44.) The specification also makes clear that the purpose of the "poll-me bits" and "poll-me messages" is to request bandwidth from the base station.

Apple's proposed construction includes a limitation that is not supported by the specification, namely that the bit be utilized in a MAC packet. Apple's proposed construction also states the purpose of the "poll-me bits" and "poll-me messages" is to "indicate to the base station that the subscriber station requires a change in bandwidth allocation," which is not exactly accurate. The purpose of these bits and messages is to request bandwidth from the base station, not to indicate a change in bandwidth allocation. Wi-LAN's terminology is more consistent with the specification, and thus the Court adopts Wi-LAN's proposed construction of these terms.

7. "Fairness Algorithm"

The last true term at issue is "fairness algorithm," which appears in the '145 Patent. Apple proposes this term be construed as "a QoS algorithm to prioritize the transmission of user data of one connection over that of at least one other connection." Wi-LAN proposes the term be construed as a "QoS algorithm to ensure fair handling of the queued data."

Between these two proposals, Wi-LAN's is more consistent with the specification. As stated therein, the purpose of the "fairness algorithm" is "to ensure fair handling of the data queued at" a QoS when "there is insufficient bandwidth to transmit all queued data during the current TDD frame." ('145 Patent at 22:65-23:3, 57-67.) Apple's proposed construction reads the "fairness" requirement out of the algorithm and replaces it with prioritization, but simple prioritization does not ensure fairness. Indeed, the process of prioritization, untethered to the concept of fairness, could result in one connection always receiving bandwidth while others go without. This is precisely the situation sought to be avoided by the use of "fairness algorithms," and thus, prioritization is not an accurate descriptor.

Furthermore, the specification provides an example of a fairness algorithm that does not involve any prioritization. (*See id.* at 23:3-12.) In that algorithm, Continuous Grant, "[a]ll data in the[ ] queues must be sent every TDD frame." (*Id.* at 10-11.)

The claims and the specification both read in terms of "fairness," not prioritization. Because's Wi-LAN's proposal is the only one that reflects that concept, the Court adopts Wi-LAN's proposed construction of this term.

8. Preamble

The final issue for the Court to decide is whether the preamble of Claim 26 of the '145 Patent is limiting. Apple asserts it is while Wi-LAN states it is not.

"'Whether to treat a preamble as a limitation is a determination resolved only on review of the entire[ ] . . . patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim.'" *Poly-Am., L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1309 (Fed. Cir. 2004) (quoting *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989)). There is no litmus test for determining when a preamble limits the invention. *Id.*; *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). There are, however, some guidelines.

"'Generally, the preamble does not limit the claims.'" *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1236 (Fed. Cir. 2017) (quoting *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002)).

> However, a preamble may be limiting if: "it recites essential structure or steps"; claims "depend[] on a particular disputed preamble phrase for antecedent basis"; the preamble "is essential to understand limitations or terms in the claim body"; the preamble "recit[es] additional structure or steps underscored as important by the specification"; or there was "clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art."

Id. (quoting *Catalina Mktg.*, 289 F.3d at 808). In contrast, the preamble does not limit the claims when the "'patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.'" *Poly-Am.*, 383 F.3d at 1310 (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir.

1997)). "'[P]reamble language merely extolling benefits or features of the claimed invention does not limit the claim scope without clear reliance on those benefits or features as patentably significant.'" *Georgetown Rail*, 867 F.3d at 1236 (quoting *Catalina Mktg.*, 289 F.3d at 809).

Here, Claim 26 of the '145 Patent recites:

> *A subscriber unit for a wireless communication system, comprising*:
>
> > a plurality of queues for buffering user traffic according to a traffic parameter, each queue having an associated logical state;
> >
> > a media access control (MAC) element capable of
> >
> > > transmitting an uplink (UL) bandwidth request based on the logical state of the queues during a bandwidth request opportunity, and
> > >
> > > allocating between the queues a bandwidth allocation received in response to the UL bandwidth request, based on the current state of the queues.

Apple asserts the preamble is limiting because the body of the claim does not recite a structurally complete invention. Wi-LAN relies on the general rule that preambles are not limiting, and argues the preamble "merely names" the limitations set out in the body of the claim and sets out the intended use of the invention.

The Court agrees with Apple that the preamble is limiting for several reasons. First, the body of the claim does not recite a complete structure without the preamble. It is clear from the Patent as a whole that a subscriber unit is a critical part of the invention, and without that limitation, the body of the claim has no context. Second, the preamble does not "merely name" the limitations set out in the body of the claim. Rather, as stated above, it provides context for the limitations, or an "essential structure" for those elements. And finally, the preamble does not recite an intended use for the invention. It is a part of the invention, not just a use therefor. Thus, for these reasons, the Court finds the preamble of Claim 26 of the '145 Patent is limiting.

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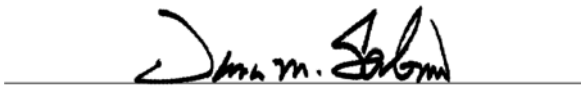
III.

CONCLUSION

For the reasons stated above, the disputed terms are interpreted as set forth in this Order.

IT IS SO ORDERED.

DATED: November 13, 2017



HON. DANA M. SABRAW
United States District Judge