Case: 19-2411 Document: 63-1 Page: 84 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 1 of 42

Ĺ:

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

SIMO HOLDINGS INC.,

Plaintiff,

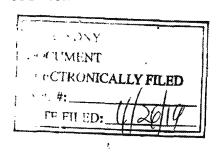
-against-

HONG KONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED and UCLOUDLINK (AMERICA), LTD.,

Defendants.

18-cv-5427 (JSR)

OPINION



JED S. RAKOFF, U.S.D.J.

In this patent infringement action, plaintiff SIMO Holdings Inc. ("SIMO" or "plaintiff") and defendants Hong Kong uCloudlink Network Technology Limited and uCloudlink (America), Ltd. (collectively, "uCloudlink" or "defendants") cross-moved for summary judgment. In a "bottom-line" Order, the Court previously granted plaintiff's motion and granted in part and denied in part defendants' motion. See Order dated April 12, 2019, ECF No. 131. This Opinion explains why.

I. Factual Background¹

¹ The Court permitted the parties to redact the publicly-filed copies of their motion papers and related exhibits to remove "truly confidential information." Order dated April 5, 2019, ECF No. 107. The Court has endeavored, to the extent practicable, to include in this Opinion references only to the public information contained in these filings. Where reference is made to information that was previously filed only under seal, it is because that information was material to the disposition of this motion. Such information is hereby deemed unsealed,

Case: 19-2411 Document: 63-1 Page: 85 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 2 of 42

A. The Accused Products

uCloudlink sells the "GlocalMe" G2, G3, and U2 Series WiFi hotspot devices, as well as the S1 mobile phone, in the United States (collectively, the "Accused Products" or "Accused Devices"). Pl. SOMF² ¶¶ 7-13, ECF No. 113; Def. Resp. SOMF ¶¶ 7-13, ECF No. 123; Def. SOMF ¶ 1, ECF No. 120; Pl. Resp. SOMF ¶ 1, ECF No. 117.³ There is no material dispute about the operation of these Devices. Each of the Accused Products "offers international data roaming services." Def. Mem. 2, ECF No. 119. In other words, the Accused Products enable users to access data services while traveling abroad without incurring roaming fees. Each of the Products can act as "Wi-Fi hotspot[s]," meaning they provide data to other devices. Pl. SOMF ¶¶ 120-21; Def. Resp. SOMF ¶¶ 120-21.

unless explicitly indicated otherwise. See Protective Order ¶ 11, ECF No. 23.

² A party's Statement of Material Facts filed in support of that party's motion for summary judgment, as required by Local Rule 56.1, is here designated "SOMF," e.g. "Pl. SOMF." A party's responsive Statement of Material Facts opposing the other party's motion is here designated "Resp. SOMF." Finally, a party's reply Statement of Material Facts in further support of its own motion is here designated "Reply SOMF."

Similarly, a party's memorandum of law in support of its own motion is here designated "Mem.," its response in opposition is designated "Resp. Mem.," and its reply is designated "Reply Mem."

³ uCloudlink claims that it does not <u>currently</u> sell the G2 Device in the United States. Def. Resp. SOMF ¶ 7. This claim, however, is not "followed by citation to evidence which would be admissible" and therefore does not comply with Local Rule 56.1(d). In any event, for present purposes, the question of whether the G2 Device is currently sold in the United States is not material.

Case: 19-2411 Document: 63-1 Page: 86 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 3 of 42

The Accused Products all work similarly. Each of the Devices includes a SIM card, referred to as a "seed" SIM. The GlocalMe hotspot devices are shipped with physical seed SIM cards, while the S1 phone uses a virtual (or "soft") seed SIM. Pl. SOMF ¶¶ 47-49, 61; Def. Resp. SOMF ¶¶ 47-49, 61.4 None of the seed SIMs are associated with cellular carriers operating in the United States. Def. SOMF ¶¶ 13-14; Pl. Resp. SOMF ¶¶ 13-14. The seed SIMs allow the Devices to establish a connection to uCloudlink's servers using a base station of a local cellular network. Def. SOMF ¶ 16; Pl. Resp. SOMF ¶ 16.

Once connected to the uCloudlink servers, the Device sends its International Mobile Equipment Identity (or "IMEI"), which the server receives and caches. Pl. SOMF ¶¶ 73-75, 83; Def. Resp. SOMF ¶¶ 73-75, 83; Pl. Reply SOMF ¶¶ 73-75, 83, ECF No. 115. uCloudlink's servers then verify whether the Device is registered based on the IMEI. Pl. SOMF ¶¶ 76, 82-83; Def. Resp. SOMF ¶¶ 76, 82-83.5 S1 Devices, as well as non-rental, non-contract versions of the G2, G3, and U2 Devices, also transmit a user ID and password to the uCloudlink servers. Pl. SOMF ¶¶ 77-80, 82-83; Def. Resp.

⁴ The parties dispute whether the S1 ships with a seed SIM or whether it must be downloaded from uCloudlink's servers after shipment. For present purposes, the point is immaterial.

⁵ Defendants complain that the phrase "Accused Device," as used in plaintiff's Statement of Material Facts, "is vague and ambiguous." Def. Resp. SOMF \P 76. That is a frivolous objection. It is patently obvious that the phrase refers to the G2, G3, U2, and S1 products.

Case: 19-2411 Document: 63-1 Page: 87 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 4 of 42

SOMF ¶¶ 77-80, 82-83; Pl. Reply SOMF ¶¶ 77-80, 82-83. The user ID and password are used to verify whether the account has sufficient funds to access the data service. Pl. SOMF ¶¶ 80, 83, 88; Def. Resp. SOMF ¶¶ 80, 83, 88.

If the Device is verified, the servers then dispatch a virtual SIM, known as a "Cloud SIM," to the Device based on the Device's location and signal strength. Pl. SOMF ¶¶ 89, 94; Def. Resp. SOMF ¶¶ 89, 94. The Cloud SIM is subscribed to a local cellular network based on the location of the Device. Pl. SOMF ¶¶ 94; Def. Resp. SOMF ¶¶ 94.6 The Cloud SIM is drawn from uCloudlink's bank of SIM image files, which includes SIM cards subscribed to various cellular carriers located in the United States (such as AT&T and Verizon). Pl. SOMF ¶¶ 90, 94, 105; Def. Resp. SOMF ¶¶ 90, 94, 105; Pl. SOMF Exh. J¶¶ 64, 71, 74, 80 ("Feuerstein Rebuttal Report"), ECF No. 114-3.7

⁶ Although plaintiff's Statement of Material Facts only mentions that the Cloud SIM is subscribed to a local cellular network in describing the operation of the S1 Device, the record citation - the rebuttal report of Dr. Martin Feuerstein, defendants' expert - makes clear that this description applies to all of the Accused Devices.

Defendants "dispute[] that Plaintiff's citation to the record support" the assertion that its Cloud SIM bank contains SIM cards associated with specific United States carriers. Def. Resp. SOMF ¶ 105. Defendants do not explain, however, what aspect of this purported fact they are disputing, and the exhibits cited by plaintiff amply support the claim. Because defendants have failed to "specifically controvert[]" the pertinent fact, Local Civil Rule 56.1(c) (emphasis added), it is deemed to be admitted.

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 5 of 42

After receiving the Cloud SIM, the Device uses International Mobile Subscriber Identity (or "IMSI") of the Cloud SIM to register with a base station of a local cellular network. Pl. SOMF ¶¶ 97, 102; Def. Resp. SOMF ¶¶ 97, 102; Feuerstein Rebuttal Report \P 38. The base station responds with an authentication request, which includes generating a random number (or "RAND"). Pl. SOMF ¶ 97, 102; Def. Resp. SOMF ¶¶ 97, 102; Feuerstein Rebuttal Report \P 38. The Device then packages the RAND with other information to generate an APDU authentication request, which it transmits to the uCloudlink servers. Pl. SOMF ¶¶ 98, 103, 109, 112; Def. Resp. SOMF $\P\P$ 98, 103, 109, 112. The servers pass the APDU authentication request, along with the cached IMSI of the Cloud SIM, to the SIM bank, where the physical SIM card associated with that IMSI generates an authentication result. Pl. SOMF ¶ 110, 113; Def. Resp. SOMF ¶¶ 110, 113. That authentication result is sent back to the Device using a local cellular network. Pl. SOMF ¶¶ 111, 114; Def. Resp. SOMF ¶¶ 111, 114. The Device then unpacks the authentication result, retrieves the necessary information, and sends it along to the base station to answer the original authentication request. Pl. SOMF ¶¶ 115, 117; Def. Resp. SOMF ¶¶ 115, 117. The Cloud SIM is then authenticated and the Device can access the local cellular network as a local subscriber. Pl. SOMF ¶¶ 116, 118; Def. Resp. SOMF ¶¶ 115, 118. The end result of this Case: 19-2411 Document: 63-1 Page: 89 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 6 of 42

process is that a user traveling abroad can access the cellular network as a local user would, without incurring roaming fees.

B. The Asserted Patents

SIMO owns U.S. Patents Nos. 8,116,735 ("the '735 Patent") and 9,736,689 ("the '689 Patent"). The '689 Patent is a continuation of the '735 Patent, which was filed February 28, 2008, and the title of each is "System and Method for Mobile Telephone Roaming." Pl. SOMF Exh. A ('689 Patent), ECF No. 86-1; Compl. Exh. A ('735 Patent), ECF No. 1-1. The patents recite that their purpose is to allow users to access mobile networks while traveling abroad without incurring costly roaming fees or engaging in the cumbersome processing of switching physical SIM cards. E.g., '689 Patent at 2:38-62. SIMO has authorized another company, Skyroam, Inc., to practice the '689 Patent, and Skyroam sells at least two products that purportedly practice the '689 Patent in the United States. Def. SOMF ¶¶ 51-56; Pl. Resp. SOMF ¶¶ 51-56. Neither of those products are marked with the patent number. Def. SOMF ¶¶ 57-58; Pl. Resp. SOMF ¶¶ 57-58.

On June 15, 2018, SIMO filed this lawsuit. Def. SOMF ¶ 65; Pl. Resp. SOMF ¶ 65. The original complaint asserted infringement of claims 1, 8, and 13 of the '735 Patent by uCloudlink's GlocalMe G2, G3, and U2 Devices. See Compl. ¶¶ 1, 16. Prior to that filing, SIMO never communicated with uCloudlink regarding the '689 Patent. Def. SOMF ¶ 65; Pl. Resp. SOMF ¶ 65.

Case: 19-2411 Document: 63-1 Page: 90 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 7 of 42

On August 13, 2018, counsel for SIMO sent a letter to counsel for uCloudlink. Def. SOMF ¶ 69; Pl. Resp. SOMF ¶ 69. That letter alleged that uCloudlink's "GlocalMe services and devices" "infringe one or more claims of the '689 Patent, including at least claims 1, 5-8, 10-14, 19, and 20." Cangro Exh. Q at 1, ECF No. 89-17. The letter also linked to, and quoted language from, uCloudlink's Kickstarter page for the GlocalMe G2. Id. On August 20, 2018, SIMO amended its complaint to add infringement allegations as to the '689 Patent. See First Am. Compl. ¶¶ 1, 41, ECF No. 20. The Amended Complaint also added allegations regarding the S1 phone. Id.

On January 15, 2019, the Court approved the parties' stipulation to dismiss the count alleging infringement of the '735 Patent. See Stipulation, ECF No. 71. Infringement of the '689 Patent is thus the only remaining claim.8

C. The Instant Motions

Each party has cross-moved for summary judgment. SIMO seeks

(1) summary judgment that the Accused Products infringe claims 8

and 11 of the '689 Patent and (2) partial summary judgment that

 $^{^8}$ Although the Amended Complaint asserted that the Accused Products infringed claims 1, 5-8, 10-14, and 19-20 of the '689 Patent, <u>see</u> First Am. Compl. ¶ 41, defendants represent that SIMO now only asserts claims 8 and 11-14, Def. Mem. 2. The Court assumes for present purposes that this representation is accurate, as it does not affect the disposition of these motions.

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 8 of 42

the "Kasper Reference" does not constitute prior art. Pl. Mem. 1, ECF No. 112. Defendants seek (1) summary judgment of non-infringement as to all asserted claims and (2) summary judgment that SIMO is not entitled to pre-suit damages. Def. Mem. 1.9

II. Standard for Summary Judgment

A party is entitled to summary judgment on a claim or issue "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). "A party asserting that a fact cannot be or is genuinely disputed must support the assertion by . . . citing to particular parts of materials in the record . . . or showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact." Fed. R. Civ. P. 56(c)(1). The movant "always bears the initial responsibility" of "demonstrat[ing] the absence of a genuine issue of material fact." Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986). In response, the non-moving party "must set forth specific facts showing that there is a genuine issue for trial." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986) (quoting First Nat'l Bank of Ariz.

⁹ uCloudlink has lodged evidentiary objections to certain exhibits submitted by SIMO in its opposition to uCloudlink's motion. <u>See</u> Def. Evid. Obj., ECF No. 102. All of the objections concern exhibits that are not material to the Court's resolution of the instant motions. Those objections are therefore denied as moot at this time, without prejudice to renewal if plaintiff seeks to introduce the exhibits at trial.

Case: 19-2411 Document: 63-1 Page: 92 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 9 of 42

v. Cities Service Co., 391 U.S. 253, 288)). "[T]here is no issue for trial unless there is sufficient evidence favoring the nonmoving party for a jury to return a verdict for that party." Id. at 249.

III. Direct Infringement

SIMO seeks summary judgment of direct infringement by the Accused Products as to claims 8 and 11 of the '689 Patent. Pl. Mem. 1. uCloudlink seeks summary judgment of non-infringement as to claims 8, 11, 12, 13, and 14. Def. Mem. 2. However, all of uCloudlink's arguments are directed at claim 8; since the remaining claims are dependent on claim 8, if claim 8 is not infringed, none of the others are infringed. Def. Mem. 7. The crux of the parties' present infringement dispute is therefore centered on claim 8.

In its opposition to SIMO's motion, uCloudlink "incorporates by reference its memorandum of law in support of its motion for summary judgment." Def. Resp. Mem. 5, ECF No. 122. SIMO objects to this as an "effort to circumvent this Court's page limitations" and asks the Court to "consider Plaintiff's brief in opposition to" defendants' motion. Pl. Reply Mem. 1 n.1, ECF No. 116. The Court agrees that, under these circumstances, it is appropriate to consider all arguments raised by either side, whether formally in support of or in opposition to summary judgment. The material facts are undisputed, and the parties' arguments focus mostly on the proper construction of claim 8, a purely legal question.

Case: 19-2411 Document: 63-1 Page: 93 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 10 of 42

A. Legal Standard for Infringement

As relevant here, "whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States . . . during the term of the patent therefor, infringes the patent." 35 U.S.C. § 271(a). "To establish infringement of a patent, every limitation set forth in a claim must be found in an accused product or process exactly or by a substantial equivalent." Becton Dickinson and Co. v. C.R. Bard, Inc., 922 F.2d 792, 796 (Fed. Cir. 1990). "It is well settled that an accused device that sometimes, but not always, embodies a claim[] nonetheless infringes." Broadcom Corp. v. Emulex Corp., 732 F.3d 1325, 1333 (Fed. Cir. 2013) (alteration in original) (quoting Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp., 55 F.3d 615, 622-23 (Fed. Cir. 1995)). If "there is no dispute regarding the operation of" the accused products, the question of infringement "reduces to a question of claim interpretation and is amenable to summary judgment." MyMail, Ltd. v. America Online, Inc., 476 F.3d 1372, 1378 (Fed. Cir. 2007).

Here, it is undisputed that defendants sell or have sold the Accused Products within the United States. Additionally, plaintiff moves for summary judgment only on the question of literal infringement, not under the doctrine of equivalents. Accordingly, the only question as to infringement is whether the Accused

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 11 of 42

Products include every limitation in claims 8 and 11 of the '689 Patent.

B. Infringement of Claim 8

1. The Preamble

Claim 8 begins with a preamble that lists various components. It reads:

A wireless communication client or extension unit comprising a plurality of memory, processors, programs, communication circuitry, authentication data stored on a subscribed identify module (SIM) card and/or in memory and non-local calls database, at least one of the plurality of programs stored in the memory comprises instructions executable by at least one of the plurality of processors for:

'689 Patent at 25:4-10.

a) Whether the Preamble is Limiting

The parties' first dispute is over whether this preamble limits the scope of the claim - that is, are the components listed necessary in order to practice the claim, as defendants contend, such that a device that lacks one or more of the listed components is not infringing? Or are the listed components merely illustrative, as plaintiff contends, such that an embodiment need only contain some but not all? The distinction matters because uCloudlink contends that the Accused Products do not include a "non-local calls database," and further contends that the inclusion of such a database is a limitation of claim 8.

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 12 of 42

SIMO argues that, by failing to raise the issue of whether the preamble is limiting during the claim construction phase, uCloudlink has waived this argument. Pl. Mem. 4-5; Pl. Resp. Mem. 7-8. uCloudlink contends, in response, that "SIMO has taken the position that the preamble is limiting," so uCloudlink did not believe the matter to be in dispute until summary judgment briefing. Def. Resp. Mem. 7.

uCloudlink's contention is meritless. It is based largely on SIMO's infringement contentions, which asserted that "[t]o the extent the preamble is determined to be limiting," the Accused Products contained every component listed. Def. Resp. Mem. 7-8. But that is plainly not a concession that the preamble is limiting; rather, it is an assertion that even if the preamble is limiting, SIMO still believes it could prove infringement. This language was sufficient to put uCloudlink on notice that this was a disputed issue, and the Court agrees with SIMO that there is no valid justification for uCloudlink's failure to raise the issue sooner - if not during claim construction, then during the many months since. Nor, the Court must note, is this the first time uCloudlink has made an assumption about SIMO's litigation strategy based on its misinterpretation of plain language and then expected this Court to forgive its belated response. See Letter Motion 2, ECF No. 79 (uCloudlink "advised [its expert] to assume the filing date of the first patent application as the date of invention," only to Case: 19-2411 Document: 63-1 Page: 96 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 13 of 42

later be surprised that SIMO did not, in fact, concede that to be the date of invention).

However, the Court cannot accept SIMO's argument that the issue is waived. Although uCloudlink's dilatory action is inexcusable, SIMO also bears some blame for not bringing this to the Court's attention sooner. SIMO's own infringement contentions flagged the possibility that the preamble might be deemed limiting, yet SIMO never asked this Court to construe the preamble as not limiting. Indeed, it appears that both parties were happy to simply kick the can down the road on this issue until it became relevant and then blame the other side for not acting sooner. Neither party has clean hands, and the Court declines to impose a sanction to the detriment of only one side. This Court "has considerable latitude in determining when to resolve issues of claim construction." CytoLogix Corp. v. Ventana Medical Systems, Inc., 424 F.3d 1168, 1172 (Fed. Cir. 2005). It is this Court's obligation, even at this late stage of the proceedings, to "see to it that [this] dispute[] concerning the scope of the patent claims [is] fully resolved." Every Penny Counts, Inc. v. Am. Express Co., 563 F.3d 1378, 1383 (Fed. Cir. 2009).

"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." Georgetown Rail Equipment Co.

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 14 of 42

v. Holland L.P., 867 F.3d 1229, 1236 (Fed. Cir. 2017) (alterations omitted) (quoting Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 808 (Fed. Cir. 2002)). "Generally, the preamble does not limit the claims." Id. (quoting Allen Eng'g Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1346 (Fed. Cir. 2002)). A preamble may be limiting, however, if it recites essential structures or steps or if it is necessary to understand the claim. Id. Conversely, if the body of the claim "defines a structurally complete invention," then the preamble is not limiting. Id. (quoting Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997)).

Defendants argue that the preamble "sets out necessary structure for the claim" and "provides antecedent basis for other elements in the body of the claim." Def. Mem. 12-13. The Court agrees. The body of the claim provides no information whatsoever about the structure of the invention; the body simply describes the actions taken by the invention. It is the preamble that supplies the necessary structure: the actions described in the body are "execut[ed] by . . . the plurality of processors," and the instructions to perform those actions are included in the "programs stored in the memory." '689 Patent at 25:9-10. The preamble does not simply "extoll[] benefits or features of the claimed invention," Catalina Mktg., 289 F.3d at 809; it describes the invention's composition and function. The Court therefore agrees with defendants that the preamble is limiting.

Case: 19-2411 Document: 63-1 Page: 98 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 15 of 42

b) How to Construe the Preamble List

Even accepting the preamble as limiting, the parties still disagree about what that limitation is. Defendants argue that the list requires "(1) memory; (2) processors; (3) programs; (4) communication circuitry; (5) authentication data stored on a SIM card and/or in memory; and (6) a non-local calls database." Def. Mem. 15. Plaintiff, however, contends that the "non-local calls database" is not a separate list item; rather, it is an alternative location for authentication data to be stored (i.e. the data is stored on a SIM card and/or in memory and the non-local calls database). Pl. Resp. Mem. 16-18.

Although the preamble is not a model of grammatical correctness, defendants have the more persuasive reading. First, "authentication data" is not preceded by a conjunction. It is therefore implausible that this term ends the list, as plaintiff contends. Moreover, there is no indication in the patent that the non-local calls database actually performs the function of storing authentication data, as SIMO now claims. Rather, "[t]he non-local calls database 525 lists various locations, corresponding area codes, and corresponding local dial-in telephone numbers for use when the subscriber wants to make a non-local call when present at a particular location." '689 Patent at 15:57-61. When the specification does discuss the storage of authentication data, it says that data is stored "on a SIM card and/or in memory," id. at

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 16 of 42

14:23-24, without mentioning the non-local calls database. That perfectly matches defendants' reading of the preamble. The Court therefore agrees with defendants that the "non-local calls database" is a separately listed component of the preamble.

c) Whether Every Component Listed is Necessary

uCloudlink argues that because the list of components in the preamble "uses the term 'and' to finish the list of components," a device can practice claim 8 only if it includes every listed component. Def. Mem. 17. As a matter of grammar and ordinary usage, defendants' argument has much to commend it. After all, as defendants point out, "[t]he plain meaning of 'and' is conjunctive." Def. Mem. 17; see also SuperGuide Corp. v. DirecTV Enterprises, Inc., 358 F.3d 870, 886 (Fed. Cir. 2004). Moreover, the preamble itself uses "and/or" immediately before the relevant "and," so it is clear that the inventors knew how to distinguish between the two when necessary. If the Court's task were simply to discern the claim's scope from the text of the preamble alone, defendants might have a winning argument.

But in construing the preamble, the Court must look to the patent as a whole, see Georgetown Rail Equipment, 867 F.3d at 1236, and the specification indisputably states that the non-local calls database is optional. E.g., '689 Patent at 15:14-20 (stating that "the memory 512 may also include . . . a remote authentication module (optionally including a non-local calls database 525 . .))

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 17 of 42

(emphasis added); id. at 15:22-24 ("Different embodiments may include some_or all of these procedures or modules in memory.") (emphasis added). The Federal Circuit "normally do[es] not interpret claim terms in a way that excludes embodiments disclosed in the specification." Oatey Co. v. IPS Corp., 514 F.3d 1271, 1276 (Fed. Cir. 2008). "At leas[t] where claims can reasonably [be] interpreted to include a specific embodiment, it is incorrect to construe the claims to exclude that embodiment, absent probative evidence to the contrary." Id. at 1277. Defendants' construction of the preamble, although grammatically appealing, would contradict the specification. See Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1204 (Fed. Cir. 2002) ("[T]he intrinsic record may show that the specification uses the words in a manner clearly inconsistent with the ordinary meaning reflected, for example, in a dictionary definition. In such a case, the inconsistent dictionary definition must be rejected."); cf. SuperGuide, 358 F.3d at 887 (applying ordinary meaning to claim terms, but only after "conclud[ing] that nothing in the specification rebuts the presumption that the '211 patentee intended the plain and ordinary meaning of this language"). The Court must therefore determine if there is a reasonable alternative interpretation of the preamble that would not exclude this embodiment.

Case: 19-2411 Document: 63-1 Page: 101 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 18 of 42

The Court concludes that there is such a reasonable alternative interpretation, and it is to treat "and" in the preamble as though it read "and/or." The Court readily acknowledges that this interpretation does not comport with ordinary rules of grammar and usage. However, "plain English grammar and syntax are not always endorsed by either patent examiners or courts interpreting patents." Joao v. Sleepy Hollow Bank, 348 F. Supp. 2d 120, 124 (S.D.N.Y. 2004). For that reason, it is not uncommon for courts to interpret the word "and" in a patent claim to encompass the disjunctive when such an interpretation is necessary to accommodate the specification and preferred embodiments. See, e.g., id. at 125 ("Here, it is far more sensible to read the disputed phrase as though plaintiffs had used the word 'or' in place of 'and.' Indeed, that is what plaintiffs do in the specifications."); Orion IP, LLC v. Staples, Inc., 406 F. Supp. 2d 717, 725-26 (E.D. Tex. 2005) (similar). Here, construing the list as disjunctive rather than conjunctive preserves the embodiments described by the specification, and is therefore preferred.

The Court's conclusion that the preamble list should be read as disjunctive is bolstered by the fact that the preamble is a bit of a mess grammatically, no matter what reading is assigned to it. For example, the preamble appears to say there must be a "plurality" of each component. The usual meaning of the word "plurality" is "more than one." E.g., Bilstad v. Wakalopulos, 386

Case: 19-2411 Document: 63-1 Page: 102 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 19 of 42

F.3d 1116, 1123 (Fed. Cir. 2004). But that is an awkward fit with several of the list items. For example, "memory," in the sense of digital storage, is not usually treated as a countable noun, so it is strange to speak (as the preamble does) of a "plurality of memory." Indeed, it appears that the words "plurality" and "memory" are usually only joined when accompanied by a separate countable noun. E.g., Inphi Corp. v. Netlist, Inc., 805 F.3d 1350, 1353 (Fed. Cir. 2015) ("plurality of memory devices"); In re Rambus Inc., 694 F.3d 42, 48 (Fed. Cir. 2012) ("plurality of memory cells").

Similarly, the phrase "a plurality of non-local calls database" is awkward because, although "database" is clearly a countable noun, the ordinary meaning of the word "plurality" would require that "database" be pluralized, i.e. "databases," as with "processors," "programs," and "data." '689 Patent at 25:5-8. In fact, defendants do not argue that the preamble really requires a plurality of non-local calls databases; they argue that it requires only "a non-local calls database." Def. Mem. 15 (emphasis added). In other words, even defendants are advocating for a departure from the plain meaning of the word "plurality" - presumably because the specification quite clearly does not envision at least two of each listed component. E.g., '689 Patent Fig. 5A (diagram of wireless communication client that depicts only one processor, memory, and non-local calls database); id. at 14:25-26 ("Different embodiments [of the wireless communication client] may include

Case: 19-2411 Document: 63-1 Page: 103 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 20 of 42

some or all of these components."). And once it is acknowledged that the word "plurality" cannot be read strictly literally, it is easier to accept that the word "and" is, likewise, not to be taken at face value.

Accordingly, the Court concludes that the list of components in the plurality should be read disjunctively, such that not all of the components listed are required to practice claim 8. And because the specification unambiguously states that the non-local calls database is optional, the Court further concludes that the non-local calls database is not a necessary component.¹⁰

2. "enabling an initial setting"

After the preamble, claim 8 reads:

enabling an initial setting of the wireless communication client or the extension unit and a remote administration system

'689 Patent at 25:11-13. During claim construction, the Court declined to construe the phrase "enabling an initial setting," concluding that "the parties ha[d] not identified any genuine dispute as to the scope of the term." Claim Const. Op. 10, ECF No. 64.

¹⁰ Presumably, at least some of the components listed in the preamble are necessary, in particular the processors and programs that are described as carrying out and storing instructions for the actions described in the body of the claim. The Court need not decide now which, if any, of the remaining components are mandatory, as it is undisputed that each of the Accused Products includes every listed component except the non-local calls database (i.e. memory, processors, programs, communication circuitry, and authentication data.)

Case: 19-2411 Document: 63-1 Page: 104 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 21 of 42

SIMO argues that this limitation of claim 8 is met because the Accused Products create a socket connection to communicate with uCloudlink's servers and that the "servers take action in response to initial information received from the Accused Products." Pl. Mem. 7-8. uCloudlink does not dispute that its backend servers constitute "a remote administration system." But uCloudlink insists that the Accused Products do not "enable an initial setting" of those servers, because the Products cannot "control the backend servers" and "cannot invoke any commands or any setting changes on the servers." Def. Resp. Mem. 14.11 uCloudlink admits that the servers respond to information received from the Products, but insists that this merely "shows that the Accused Products are able to communicate with uCloudlink's backend servers." Def. Resp. Mem. 14.

uCloudlink's argument is meritless. It is undisputed that the Accused Products send information to the backend servers via the seed SIM, and that the servers, in response, verify that information, dispatch a Cloud SIM to the Product, and cache the information received for future use. See Pl. SOMF ¶¶ 73-94. The "initial setting" of the backend server is achieved when the server

uCloudlink characterizes this as a factual dispute precluding summary judgment. Def. Resp. Mem. 15. However, the pertinent facts - i.e. those regarding the operation of the Accused Products - are undisputed. The only question is whether those facts meet the limitations of claim 8. That is a legal question of claim construction, not a question of fact.

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 22 of 42

verifies, caches, and responds to information from the Device, and it is triggered - that is, "enabled" - by the Device sending the information in the first place.

The Court rejects uCloudlink's argument that the Device must somehow "control" the remote administration system, for two reasons. First, it does not comport with the plain language. "Enable" does not mean "control;" it means something quite different. If I enable another person to do something, I am not controlling them. To the contrary, the implication is that they are acting voluntarily, but that their action is somehow assisted or made possible by my own. So too here: the sending of the information from the Device is what makes it possible for the servers to store and respond to that information.

Second, in seeking to limit the word "enable" to instances of "control," defendants are essentially advancing a last-minute claim construction argument. And while the Court was willing to overlook the untimeliness of claim construction arguments regarding the preamble, it cannot do so here. As noted above, this phrase was already the subject of contested claim construction briefing, yet defendants never so much as hinted at the construction they now advance. If defendants wanted the Court to construe "enable" to mean "control," they were welcome to raise that argument during claim construction. They cannot raise it now,

Case: 19-2411 Document: 63-1 Page: 106 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 23 of 42

at the eleventh hour, months after unsuccessfully advancing a completely different interpretation.

Finally, defendants argue that the "enabling an initial setting" step must involve "enrolling of the wireless communication client or extension unit in service." Def. Resp. Mem. 13. But this argument relies entirely on lifting language from the now-dropped '735 Patent; the '689 Patent contains no such limitation. Moreover, the Court specifically rejected uCloudlink's argument at claim construction that "enabling an initial setting" must include enrolling the wireless device in service. See Claim Const. Op. 8. Finally, even if uCloudlink were correct on this point, this limitation is clearly met, since the actions taken by the backend servers are all performed in order to ultimately enroll the wireless device in service.

In short, the undisputed facts establish that the "enabling an initial setting" limitation is met by the Accused Products.

3. "establishing a data communication link"

The next limitation of claim 8 is:

establishing a data communication link to transmit information among the wireless communication client or the extension unit, and the remote administration system

'689 Patent at 25:14-16. uCloudlink does not dispute that this limitation is met, and in any event it clearly is. As SIMO points out, data is indisputably exchanged between the Accused Products

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 24 of 42

and the backend servers. Pl. Mem. 9. Accordingly, this limitation is satisfied as to the Accused Products.

4. <u>"establishing a local authentication information</u> request"

The next limitation is:

establishing a local authentication information request in response to a local authentication request by a local cellular communication network, wherein the local authentication information request comprises information regarding the local authentication request for local authentication information received by the foreign wireless communication client or the extension unit from the local cellular communication network, and wherein the data communication link is distinct from the local cellular communication network

'689 Patent at 25:17-26. It is undisputed that the Accused Products communicate with a local cellular communication network, that the network requests authentication information, and that the Accused Products transmit that request for authentication information to uCloudlink's backend servers. See Pl. Mem. 10-11. uCloudlink argues, however, that the data communication link is not distinct from the local cellular communication network. Def. Mem. 9.

Both parties agree that the Accused Products use \underline{a} local cellular communication network to communicate with the backend servers (the "data communication link," in the Patent's terminology). uCloudlink's position is that there is only one local cellular communication network for any given area and that the Accused Devices do not set up any data communication link that is

Case: 19-2411 Document: 63-1 Page: 108 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 25 of 42

distinct from that network. Def. Mem. 9-11. SIMO, however, argues that there are separate "local cellular communication networks" operated by different cellular carriers in the United States (AT&T, Verizon, etc.). Pl. Mem. 12-13. In other words, SIMO contends that "the Accused Products use a cellular network in connection with their [foreign] carrier seed SIMs and then establish local wireless services provided by a <u>separate and distinct</u> local cellular network using their Cloud SIMs." Pl. Resp. Mem. 2-3. Thus, the dispute regarding this limitation is whether the local cellular network is carrier-specific or whether there is only one network in a given area, with multiple carriers operating on it.

uCloudlink contends, based on Dr. Feuerstein's deposition testimony, that there is only one "local cellular communication network" in any given area, comprised of all the cell towers close enough for the mobile device to connect to, regardless of how many carriers those cell towers are divided between. Def. Reply 3. But Feuerstein's deposition testimony does not match the way the patent itself speaks of wireless network. In fact, the patent explicitly associates a "local wireless communication network" with a particular carrier. E.g., '689 Patent at 6:59-63 ("[A] cellular telephone associated with a wireless contract with AT&T in San Francisco (the foreign wireless communication client) is not subscribed to the VODAPHONE cellular telephone network in London (the local wireless communication network).") (emphasis added);

Case: 19-2411 Document: 63-1 Page: 109 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 26 of 42

see also id. at 13:38-39 (referring to "the VODAPHONE network"). Additionally, the patent notes that different types of wireless networks use different communication standards, such as GSM or CDMA, and that carriers are typically associated with one or the other. Id. at 9:64-66, 12:10. This is strong - indeed, all but conclusive - evidence that "local wireless communication network," in the terminology of the patent, is carrier-specific.

This interpretation is also corroborated by this Court's claim construction. During claim construction, the parties asked this Court to construe three related phrases: "the data channel is distinct from local wireless services of the local carrier," "the data communication link is distinct from the local cellular communication network," and "the data channel is not associated with a local wireless service provided to a subscriber of the local carrier." Claim Const. Op. 24. The parties agreed that each phrase had the same meaning. Id. Note, however, that two of those phrases explicitly relate to a particular wireless carrier. Although those phrases appear only in claims that are no longer asserted in this litigation, the parties' previous stipulation that they carry the same meaning as the presently-disputed phrase is still in force. It would make little sense, then, to interpret "local cellular communication network" to be carrier-agnostic, even though two phrases meaning the exact same thing explicitly invoke the local wireless carrier.

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 27 of 42

Finally, this construction comports with the testimony of defendants' own representatives. Specifically, Shu He, the head of uCloudlink's Department of Terminal Software, was asked during his deposition to name "examples of local wireless cellular network[s] in the US" and answered "AT&T." Def. SOMF Exh. C at 67:22-25, ECF No. 121-3. In light of all this, it is quite clear that Dr. Feuerstein's interpretation of "local cellular communication network" is incorrect, at least as applied to this patent. Rather, the Court agrees with SIMO that different wireless carriers operate different wireless communication networks.

uCloudlink also argues that when the Device communicates with the backend servers using the seed SIM, it is still "using" the local cellular network, just on a roaming basis. Def. Reply Mem. 2-3, ECF No. 125. The Court agrees, in part. Recall that the local cellular communication network must be distinct from the data communication link. The data communication link is established when the seed SIM communicates with uCloudlink's backend servers. Pl. Mem. 9. Once the Cloud SIM is assigned, the Device attempts to connect to the cellular network associated with that 'Cloud SIM. Pl. Mem. 10. The network responds with a local authentication request, which the Device packages and sends to the backend servers as a local authentication information request using the data communication link established by the seed SIM.

Case: 19-2411 Document: 63-1 Page: 111 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 28 of 42

Thus, to meet this limitation, it must be the case that the local cellular network used by the seed SIM is different from the local cellular network used by the Cloud SIM. That will sometimes, but not always, be the case. Both Dr. Clark and Dr. Feuerstein agree that, because a given geographic area will often include multiple cellular carriers, the seed SIM and Cloud SIM might connect to different service providers. Def. SOMF Exh. H at 72:11-19, ECF No. 89-8; Pl. Resp. SOMF Exh. 1 at 86:8-19, ECF No. 110-1. For example, the seed SIM might connect (on a roaming basis) to AT&T's network, while the Cloud SIM is subscribed to, and connects to, Verizon's. In that scenario, the relevant "local cellular communication network" - i.e. the one that sent the local authentication request to the Cloud SIM - is Verizon's, and because the data communication link - established by the seed SIM using AT&T's network - is distinct from Verizon's network, the claim limitation is satisfied. Indeed, an internal uCloudlink document describing the operation of the Accused Products visually depicts the seed SIM connecting to a different network than the Cloud SIM. See Pl. SOMF Exh. EE 3-4 (under seal).

In other words, the Accused Products meet this limitation at least some of the time. That is all that is necessary. See Broadcom, 732 F.3d at 1333; Hilgraeve Corp. v. Symantec Corp., 265 F.3d 1336, 1343 (Fed. Cir. 2001) ("[A]n accused device may be found to infringe if it is reasonably capable of satisfying the claim

Case: 19-2411 Document: 63-1 Page: 112 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 29 of 42

limitations, even though it may also be capable of non-infringing modes of operation.").

5. <u>"relaying the local authentication information</u> request"

The next limitation of claim 8 is:

relaying the local authentication information request to the remote administration system via the data communication link and obtaining suitable local authentication information from the remote administration system via the data communication link

'689 Patent at 25:27-31. uCloudlink does not dispute that the Accused Products send the local authentication information request to the backend servers via the data communication link, and that the backend servers send local authentication information in response, again using the data communication link. uCloudlink argues, however, that the request is not "relay[ed]" and that the information obtained is not "suitable." Def. Resp. Mem. 15-20. 12 The Court will address each objection in turn.

As to "relaying," uCloudlink argues that because Accused Products generate the local authentication information request (by packaging the RAND received from the base station with other information), they cannot "relay" it. Def. Resp. Mem. 15.

¹² Again, uCloudlink contends that there are material factual disputes regarding these limitations. Def. Resp. Mem. 17, 20. Again, however, the operative facts are not disputed. The only question is whether the undisputed operation of the Accused Products fits within the meaning of the claim terms - a question of law.

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 30 of 42

uCloudlink urges that the ordinary meaning of "relaying" in this field is "receiving and passing on information or a message." Def. Resp. Mem. 15. Whatever the appeal of this argument as a matter of ordinary usage, however, it cannot be reconciled with the language of the patent. Recall that the limitation immediately preceding this one requires the practicing Device to "establish[] a local authentication information request." '689 Patent at 25:17. In other words, the patent affirmatively requires the practicing Device to generate the local authentication information request. If uCloudlink's construction were correct, then, it would be impossible to practice claim 8. The Court declines to construe the patent in such a self-defeating manner. The word "relaying" can comfortably accommodate what is described here - the wireless communication client packaging information received from the base station with other information, and sending that package along to the backend servers.

As to "suitable," uCloudlink points out that, by the time the local authentication information request is relayed, a Cloud SIM has already been assigned to the Device. Def. Resp. Mem. 18. Thus, the remote administration system simply provides the authentication information corresponding to that Cloud SIM; it does not select from more or less suitable alternatives. uCloudlink stresses that the specifications repeatedly discuss the administration system choosing the "most suitable" account to be

Case: 19-2411 Document: 63-1 Page: 114 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 31 of 42

associated with the device. <u>E.g.</u>, '689 Patent at 18:6, 19:40, 20:46. The Court is not persuaded. The claim itself does not say "most suitable," just "suitable." Moreover, the specifications use the "most suitable" language only to discuss particular embodiments. The specifications do not clearly indicate that <u>every</u> embodiment must choose the "most suitable" account. The Court therefore declines to "import[] [this] limitation[] from the specification into the claim" or to "confin[e] the claim to those embodiments" detailed in the specifications. <u>Phillips v. AWH</u> Corp., 415 F.3d 1303, 1323 (Fed. Cir. 2005).

Focusing on the word "suitable," rather than "most suitable," makes clear that uCloudlink's position is untenable. The system sends only the authentication information associated with the already-assigned Cloud SIM - but that does not mean that information is not suitable. It is, rather, the only suitable information. Nothing in the claim language precludes this application.

Accordingly, the Accused Products meet this limitation.

6. "establishing local wireless services"

The next limitation is:

establishing local wireless services provided by the local cellular communication network to the wireless communication client or the extension unit by sending the local authentication information obtained from the remote administration system to the local cellular communication network over signal link

Case: 19-2411 Document: 63-1 Page: 115 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 32 of 42

'689 Patent at 25:32-37. Defendants do not dispute that this limitation is satisfied, and it clearly is. Once the Device receives the local authentication information, it sends that information to the local cellular network, enabling the Device to access the local network. Pl. Mem. 15.

7. "providing a communication service"

The final limitation of claim 8 is:

providing a communication service to the wireless communication client or the extension unit according to the established local wireless services

'689 Patent at 25:38-40. Plaintiff argues that this limitation is met because the Accused Products "can receive data services from a cellular network," and data services qualify as communication service. Pl. Mem. 16. Plaintiff notes that the Products "can serve as a Wi-Fi hotspot to provide a data service to other client devices after it receives data services." Pl. Mem. 16. Defendants take the position, however, that the limitation is not satisfied because the communication service is provided by the local cellular service provider, rather than by the Products themselves. Def. Mem. 20.

Defendants' interpretation is unpersuasive. It is always the case that the cellular network is in some sense "providing" the communication service received by any data- or cellular-enabled device. If the patent is read to require a device to somehow provide itself with data services without the use of a network,

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 33 of 42

embodiment would be possible. Indeed, uCloudlink no acknowledges that the patent does not contemplate this reading: "Nowhere do the claims or specification envision the wireless communication client or extension unit providing the requested communication service to the wireless communication client or extension unit itself." Def. Mem. 21. Yet that is exactly what uCloudlink urges this Court to construe claim 8 to require. Again, the Court declines to adopt a construction that would nullify the claim. Moreover, the claim language requires that the communication service be "provid[ed]" "according to the established local wireless services." '689 Patent at 25:38-40. This clarifies, beyond any reasonable dispute, that the local cellular network - or "local wireless services" - is ultimately the source of the communication service. Indeed, Dr. Feuerstein agreed that when a device receives data from the cellular network, that qualifies as "providing a data service to that device." Pl. SOMF Exh. J at 186:14-22, ECF No. 114-2.

uCloudlink also argues that a Wi-Fi hotspot (like the Accused Products) cannot qualify because a hotspot provides communication services to other devices, rather than to itself. Def. Mem. 20-21. But that makes little sense. If a Wi-Fi hotspot provides data to another device, say a phone, the most natural way to understand that situation is that both devices are receiving a communication service. After all, the hotspot can scarcely pass on the

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 34 of 42

communication service unless the hotspot itself has also <u>received</u> the communication service. This limitation is therefore satisfied.

Based on the foregoing, the Court concludes that all the facts pertaining to infringement of claim 8 are either undisputed or subject to only one reasonable interpretation. Based on those facts, the Accused Products meet every limitation of claim 8. Accordingly, SIMO is entitled to summary judgment of infringement as to claim 8. Correspondingly, uCloudlink's motion for summary judgment of non-infringement as to all claims must be denied, as its arguments depend entirely on a finding of non-infringement as to claim 8.

C. Infringement of Claim 11

Claim 11 reads as follows:

The wireless communication client or extension unit of claim 8, the memory comprising instructions executable by at least one of the one or more processors for: relaying verification information to the remote administration system, wherein the verification information identifies the wireless communication client or extension unit as being associated with a user account of the remote administration system.

'689 Patent at 25:56-63. Defendants make no argument that this limitation is not met, and it clearly is. All Accused Products transmit at least the IMEI to the backend servers, and non-rental, non-contract Devices additionally send a username and password. That verification information is then used to associate the Device with a particular user account. Pl. Mem. 16.

Case: 19-2411 Document: 63-1 Page: 118 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 35 of 42

Accordingly, SIMO is entitled to summary judgment of infringement as to claim 11.

IV. <u>Validity</u>

SIMO requests a "partial summary judgment of validity." Pl. Mem. 17. Specifically, SIMO anticipates that uCloudlink will argue that a diploma thesis submitted by Michael Kasper (the "Kasper reference" or "Kasper") qualifies as prior art. Pl. Mem. 17-18. The Kasper reference bears a "submission date" of April 30, 2007 (which is prior to the '735 Patent application date of February 28, 2008), but there is no evidence in the record that it was ever published, nor is there any evidence regarding whether it was catalogued or filed in a university library. Pl. Mem. 18-20. In response, defendants represent that they will not seek to use the Kasper reference as prior art and thus ask that this motion be denied as moot. Def. Resp. Mem. 20.

"A patent shall be presumed valid." 35 U.S.C. § 282(a). The proponent of an invalidity defense must establish invalidity by clear and convincing evidence. Microsoft Corp. v. I4I Ltd. Partnership, 564 U.S. 91, 95 (2011). A patent may be invalid, interalia, if the invention was "described in a printed publication . . . before the effective filing date of the claimed invention."

35 U.S.C. § 102(a)(1). A reference qualifies as a "printed publication" for this purpose if it was accessible to the public as of the filing date. In re Hall, 781 F.2d 897, 899 (Fed. Cir.

Case: 19-2411 Document: 63-1 Page: 119 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 36 of 42

1986). When the reference is an "academic paper[] filed in a university library," it is considered accessible if it is "indexed, cataloged and shelved." In re Cronyn, 890 F.2d 1158, 1160-61 (Fed. Cir. 1989); see also Hall, 781 F.2d at 899 (concluding that indexed and shelved theses were accessible to the public); In re Bayer, 568 F.2d 1357, 1361 (Cust. & Pat. App. 1978) (concluding that submission of thesis to graduate committee did not qualify it as a publication, where it was stored in university library but not indexed or catalogued).

The Court declines defendants' request to deny this motion as moot. Dr. Feuerstein opined that Kasper was prior art in his report, so plaintiff had every reason to think defendants would pursue this argument. Having teed up the issue, defendants may not evade a merits ruling by withdrawing their argument at the last minute.

On this record, no reasonable juror could find that the Kasper reference is prior art. Defendants have submitted no evidence that the submitted thesis was ever catalogued, indexed, or shelved, nor any evidence about the library's typical shelving and cataloguing practices. Jurors could not conclude that Kasper was available to the public except by pure speculation. Accordingly, defendants cannot meet their burden of proving invalidity based on this reference. Plaintiff is therefore entitled to summary judgment that the Kasper reference is not prior art.

Case: 19-2411 Document: 63-1 Page: 120 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 37 of 42

V. Pre-Suit Damages

Finally, defendants move for summary judgment of no pre-suit damages. 35 U.S.C. § 287(a) provides that, unless a patentee marks their products with the patent number, "no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice. Filing of an action for infringement shall constitute such notice." "Absent marking, damages may be recovered only after actual notice is given." SRI Intern., Inc. v. Advanced Tech. Labs., Inc., 127 F.3d 1462, 1469 (Fed. Cir. 1997). Moreover, the Federal Circuit has held that "notice must be an affirmative act on the part of the patentee which informs the defendant of his infringement." Amsted Indus. Inc. v. Buckeye Steel Castings Co., 24 F.3d 178, 187 (Fed. Cir. 1994). "Actual notice requires the affirmative communication of a specific charge of infringement by a specific accused product or device." Id. "It is irrelevant . . . whether the defendant knew of the patent or knew of his own infringement. The correct approach to determining notice under section 287 must focus on the action of the patentee, not the knowledge or understanding of the infringer." Id.

It is undisputed that SIMO licensed the sale of products that purportedly practice the '689 Patent, and that none of these

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 38 of 42

products were marked with the patent number. It is also undisputed that SIMO never communicated with uCloudlink about the '689 Patent prior to sending its August 13, 2018 letter. uCloudlink concedes that the August 20, 2018 Amended Complaint satisfied SIMO's burden of providing actual notice. Def. Mem. 23. It contends, however, that the August 13, 2018 letter was not sufficient. Def. Mem. 23-25. Plaintiff contends that defendants' knowledge of the '735 Patent creates a "reasonable inference" that defendants "should have been aware" of the '689 Patent, such that there is a fact issue for trial. Pl. Resp. Mem. 21.

Plaintiff's argument must be rejected. "It is irrelevant ... whether the defendant knew of the patent or knew of his own infringement." Amsted Indus., 24 F.3d at 187. In other words, even if defendants knew they were infringing the '689 Patent, that could not satisfy the requirement of actual notice as a matter of law, absent affirmative action by plaintiff. Necessarily, then, defendants' purported knowledge of a separate (albeit related) patent could not possibly be enough.

SIMO alternatively argues that uCloudlink should be charged with actual notice on a theory of willful blindness. Pl. Resp. Mem. 22. SIMO notes that willful blindness is a permissible way to establish knowledge for the purpose of induced infringement. Global-Tech Appliances, Inc. v. SEB S.A., 563 U.S. 754, 768-69 (2011). SIMO argues that there is no principled reason to allow

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 39 of 42

the use of willful blindness in the context of induced infringement, but not direct infringement.

However, this argument misapprehends the nature of the inquiry. Willful blindness is a permissible means of proving the knowledge element of induced infringement. Id. at 766. But "[d]irect infringement is a strict-liability offense," so "a defendant's mental state is irrelevant." Commil USA, LLC v. Cisco Systems, Inc., 135 S. Ct. 1920, 1926 (2015). To establish liability, SIMO is not required to prove that uCloudlink knew it infringing at all; uCloudlink's knowledge is immaterial. And it would be quite anomalous to say that actual knowledge of infringement is irrelevant, but that willful blindness is somehow different. True, to establish damages, SIMO must prove that uCloudlink received notice. But, as already explained, that requirement turns not on the defendant's knowledge, but on communications by the plaintiff. uCloudlink's willful blindness would not establish that SIMO did what was required.

In any event, even were the Court to entertain a "willful blindness" theory, SIMO has not adduced sufficient evidence to create a genuine factual dispute. SIMO's evidence of uCloudlink's alleged willful blindness, in totality, amounts to (1) uCloudlink's knowledge of the '735 Patent; (2) uCloudlink's knowledge of SIMO as a competitor; and (3) uCloudlink's hiring of

Case: 19-2411 Document: 63-1 Page: 123 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 40 of 42

a former SIMO employee. Pl. Resp. Mem. 23. All of that might support a conclusion that uCloudlink should have known about the '689 Patent. It does not, however, suffice to show that uCloudlink was willfully blind. Willful blindness "require[s] active efforts . . . to avoid knowing about the infringing nature of the activities." Global-Tech, 563 U.S. at 770. SIMO does not even allege, much less substantiate, that uCloudlink did anything to bury its head in the sand. As a matter of law, then, even drawing all inferences in SIMO's favor, there is not sufficient evidence for a reasonable jury to conclude that uCloudlink was willfully blind, even if that were the relevant test.

The Court concludes, however, that SIMO provided actual notice as to the G2, G3, and U2 Devices by its August 13, 2018 letter. That letter stated, in pertinent part, that uCloudlink's "'GlocalMe' services and devices" infringed several claims of the '689 Patent (including the claims still asserted); referenced this pending lawsuit; and linked to uCloudlink's Kickstarter page from 2015 (which discussed the G2 hotspot at length). uCloudlink argues that this letter was insufficient because it "merely had generalized claims of infringement." Def. Mem. 24. Nonsense. The letter specifically identified the '689 Patent and the allegedly infringed claims. It identified the accused products by reference to the product line (GlocalMe) and, implicitly, by reference to

Case: 19-2411 Document: 63-1 Page: 124 Filed: 06/08/2020

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 41 of 42

the previously-filed complaint, which listed the G2, G3, and U2 products.

uCloudlink suggests that a claim chart is necessary to provide actual notice of infringement. Def. 24. That is not the law. To the Court's knowledge, the Federal Circuit has never required anything nearly so detailed. In fact, the Federal Circuit has found actual notice based on letters far more equivocal than the one here. In Gart v. Logitech, <u>Inc.</u>, 254 F.3d 1334, 1337 (Fed. Cir. 2001), the plaintiff sent a letter specifically identifying a particular product and stating that Logitech might "wish to have [its] patent counsel examine the enclosed ['165] patent (particularly claims 7 and 8) to determine whether a non-exclusive license is needed." The Federal Circuit found that sufficient, noting that the letter "included a specific reference to claims 7 and 8 of the '165 patent." Id. at 1346. The same is true here. In fact, a reference to specific claims may not even be necessary. See SRI Intern., Inc. v. Advanced Tech. Labs., Inc., 127 F.3d 1462, 1470 (Fed. Cir. 1997) (finding sufficient letter which stated that products "may infringe one or more claims" of a particular patent).

Moreover, the August 13, 2018 letter "was not the first communication between" SIMO and uCloudlink regarding the GlocalMe devices. <u>Gart</u>, 254 F.3d at 1347. As noted in the letter itself, SIMO had already filed suit alleging infringement by specific products of the '735 Patent. Under these circumstances, and

Case 1:18-cv-05427-JSR Document 163 Filed 04/26/19 Page 42 of 42

measured by the proper standard, the August 13, 2018 letter undoubtedly gave adequate notice of infringement as to the G2, G3, and U2 Devices. The letter did not, however, mention the \$1 phone, nor was that phone accused in the original complaint. Notice of infringement as to that Product did not come until the August 20, 2018 amendment of the complaint.

Accordingly, the date of actual notice is August 13, 2018 for each of the G2, G3, and U2 Devices. The date of actual notice for the S1 Device is August 20, 2018.

VI. Conclusion

For the foregoing reasons, the Court, in its Order dated April 12, 2019, granted SIMO's motion for summary judgment as to infringement of claims 8 and 11, and denied uCloudlink's motion for summary judgment of non-infringement. The Court further granted SIMO's motion for partial summary judgment of validity to the extent of ruling that the Kasper reference is not prior art. Finally, the Court granted uCloudlink's motion for summary judgment as to pre-suit damages to the extent of ruling that the date of notice is August 13, 2018 for the G2, G3, and U2 Devices, and August 20, 2018 for the S1 Device.

Dated: New York, NY

April **25**, 2019

JED S. RAKOFF, U.S.D.J.