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

PROCOMM INTERNATIONAL PTE. LTD., **Plaintiff,** **v.** **VERIZON COMMUNICATIONS, INC., CELLCO PARTNERSHIP D/B/A VERIZON, WIRELESS, TELEFONAKTIEBOLAGET LM ERICSSON, and ERICSSON INC.,** **Defendants.**	Case No. 2:24-cv-00009-RWS-RSP **JURY TRIAL DEMANDED**

PLAINTIFF PROCOMM INTERNATIONAL PTE. LTD.'S
REPLY CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

Procomm submits this reply brief in further support of its proposed claim constructions. For the reasons stated below, the Court should reject Defendants' proposed constructions and apply the plain meaning of the disputed terms.

II. ARGUMENT

A. U.S. Patent No. 8,583,100

1. "each remote wireless communication station having a co-located network layer router" ('100 Patent, claim 15)

Disputed Claim Term of Phrase	Plaintiff's Proposed Construction & Support	Defendants' Proposed Construction & Support
"each remote wireless communication station having a co-located network layer router" (claim 15)	Plain and ordinary meaning as informed by the intrinsic evidence; no construction necessary	"each remote wireless communication station having its own separate co-located network layer router"

The key dispute is whether the claim requires that each remote wireless communication station have ***its own separate*** co-located network layer router. Crucially, nothing in the claim or any other part of the intrinsic record requires that each remote wireless communication station have ***its own separate*** co-located network layer router. To the contrary, the intrinsic record confirms that the claim is not so limited. Defendants mischaracterize Procomm's position by asserting that Procomm is seeking a "single-shared router-for all-remote stations" interpretation. Dkt. 54 at 11. That is not Procomm's position. Procomm's proposal does not exclude each remote wireless station having its own router, but its inventions are broader and can include a "co-located network layer router" that is shared between multiple components, such as a first and second remote wireless communication station.

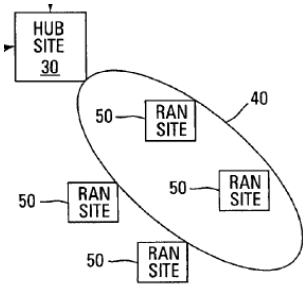
Defendants improperly attempt to alter the plain meaning of the disputed term based on a

dictionary definition. Despite paying lip service to the Federal Circuit's heavy caution "against the use of inconsistent extrinsic evidence marshalled for the purpose of litigation" (Dkt. 54 at 16), Defendants' Opposition brief does exactly that. Defendants focus myopically on a single dictionary example—*i.e.*, "**each** child **received a** large apple" (Dkt. 54 at 7, bolding in original)—without properly considering the context of the claim language itself.[1] Defendants assert that because a "layperson would understand" from their "dictionary examples" that "each child received its own ***separate*** large apple," therefore "a layperson and a POSITA" would supposedly also summarily conclude that "each station has its own separate co-located network layer router." *Id.* at 7 (emphasis added). Defendants' flawed argument is premised upon their cherry-picked dictionary example. If the dictionary definition had stated: "**each** child in the neighborhood **received an** assigned bus stop"—Defendants could not so easily argue that "a separate [bus stop] is required [for each child]." In that scenario, it would be logical to conclude that children who lived in neighboring houses would indeed share a bus stop.

Defendants incorrectly assert that the prosecution history supports their position. Defendants' prosecution history arguments are misplaced. While Defendants correctly state that the disputed term "each remote wireless communication station having a co-located network layer router" was added in an attempt to distinguish the prior art of record, Defendants essentially ignore the meaning of the "co-located" limitation. At most, Defendants' proposed construction advances a circular definition for "co-located"—an approach that is generally disfavored. Dkt. 48 at 6-7. But "co-located" is used consistently throughout the claims and intrinsic evidence to refer to something

[1] Defendants' reliance on a general-purpose dictionary is also flawed because it is unrelated to the technology at issue. It is common knowledge in the fields of computer networking and wireless communications that a resource like a router can service two or more clients—that is how they work.

that is located close to or in proximity to other system components. For example, U.S. Patent No. 6,963,552 to Sabat, Jr. ("Sabat")—the subject of a prior art rejection that Defendants rely upon for a different disputed claim term (Dkt. 54 at 15)—discloses that "Radio Access Nodes ["RANs"] for two or more different air interfaces may be **co-located** throughout the coverage system area reducing the overall system build out requirements." Ex. 5 at 4:3-5. (emphasis added). Sabat's FIG. 1, excerpted below, depicts an example of "base stations 20 located at the central hub cites 30 are then optically connected to the ***co-located RAN sites 50***." *Id.* at 7:56-58 (emphasis added).



Other portions of the prosecution history likewise use the term "co-located" consistently. For example, U.S. Pub. No. 2002/0191565 ("Mani")—the subject of another prior art rejection that Defendants rely upon (Dkt. 54 at 9-10)—discloses "[c]ellular networks are typically deployed by ***co-locating*** antennas and base stations at sites" where "[t]he antenna is ***located close to*** the base station, generally within 100 feet." Ex. 4 at [0005]. Thus, the intrinsic record discloses that a "co-located" router may be shared.

Defendants advance two arguments in opposition. Procomm's construction is proper considering these arguments. First, Defendants argue that Procomm's position would require the court to "rewrite [the] claims." Dkt. 54 at 11. But it is Defendants who seek to re-write the claims by attempting to read in the "its own separate" router limitation. Second, Defendants argue that Procomm's position would render the term "each" meaningless and would expressly read-out the claim term "each." Dkt. 54 at 11-12. Defendants are incorrect. Under Procomm's proposal, "each"

remote wireless communication station has a network layer router, which may be individual or shared. The prosecution history supports Procomm's position. In rejecting a separate claim, the Examiner stated "the claims in no way recite *a router at each of the plurality of antennas*, they simply recite that each antenna is coupled to a router, which could mean one single router for each antenna or multiple routers, one for each antenna." Ex. C at PROCOMM-A_00002295 (September 8, 2010 Office Action, p. 3).

2. "uplink RF sampled data" ('100 Patent, claim 19)

Disputed Claim Term of Phrase	Plaintiff's Proposed Construction & Support	Defendants' Proposed Construction & Support
"uplink RF sampled data" (claim 19)	Plain and ordinary meaning as informed by the intrinsic evidence; no construction necessary	"uplink data that has been converted from RF to digital"

Defendants' primary argument is that Procomm's position is not supported by the intrinsic record of the '100 patent. Dkt. 54 at 12, 16. Defendants are incorrect. The patent specification expressly recites the narrower language "digital RF sampled data" (*see, e.g.*, Ex. 1 at 3:55-57, 60-63; 8:19-26), whereas asserted claim 19 recites the broader "uplink RF sampled data" without the "digital" limitation. (Ex. 1 at cl. 19). The specification supports Procomm's position. Had the patentees wished to limit the claim term, they simply could have specified "digital" in the claim itself. The specification confirms that the patentee was aware of "digital RF sampled data," but still chose to use the broader "uplink RF sampled data" in the asserted claim. *See Legends, Inc. v. Upper Deck Co. LLC*, No. H-09-3463, 2010 WL 4817050, at *10 (S.D. Tex. Nov. 17, 2010) (refusing to limit "database" to a computer-only database, noting that while the specification described some embodiments as using a "computer database," the claims themselves omitted "computer"). Procomm's proposal does not exclude uplink data that has been converted from RF

into digital, but its inventions are broader and can include a "discrete-time signal" — *i.e.*, data that is ***sampled*** but not fully ***digitized***. Dkt. 48 at 7-8; Ex. 3 at ProcommEE_000961. A POSA would understand that the process of analog to digital conversion involves two steps: sampling (digitization in time) and quantization (digitization in amplitude). Dkt. 48 at 7. Claim 19 specifies the data is "sampled" but nothing in the claim requires the sampled data be fully digitized.

Defendants' cited encyclopedia definition of "sampling" is inapposite at least because it addresses only "sampling" and not the full process of analog to digital conversion. Dkt. 54 at 13. It is also inconsistent with the "sampling rate" definition on the same page—which is measured in the "number of samples per unit of time" and is the "rate at which an analog signal is ***sampled for conversion to*** and from the ***digital*** domain"—implying subsequent steps apart from sampling are required for conversion to digital. Ex. D at DEFS-PRCM-EE_0000022 (emphasis added).

Defendants suggest that their proposed construction is correct because digitization is generally required to use a router. Dkt. 54 at 13, 14 n. 3. That argument is misplaced because it is inconsistent with the requirement of the claim itself. Claim 19 does not require that "uplink RF sampled data" be sent through a router, but merely requires the "remote unit is configured to send uplink RF sampled data to a host unit." Defendants also appear to argue that their proposed construction is correct because the "disclosed embodiments" each involve data that has been fully digitized. Dkt. 54 at 14. But the Federal Circuit has "repeatedly warned against confining the claims to [disclosed] embodiments." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005); *Woods. v. DeAngelo Marine Exhaust, Inc.*, 692 F.3d 1271, 1283 (Fed. Cir. 2012) ("the claims should not be confined to the disclosed embodiments—even when the specification discloses only one embodiment."). Defendants' prosecution history arguments do not compel a different conclusion. Dkt. 54 at 15. Defendants assert that their proposed construction is correct because the

claim was rejected during prosecution based on references that allegedly disclosed fully digitized data. *Id.* at 15-16. That argument is of no moment. A POSA would understand that fully digitized data has also been sampled. Dkt. 48 at 7-8. Again, claim 19 specifies that data is "sampled" but nothing in the claims requires that the sampled data be fully digitized.

B. U.S. Patent No. 7,724,521

1. "convective opening" ('521 Patent, claim 14)

Disputed Claim Term of Phrase	Plaintiff's Proposed Construction & Support	Defendants' Proposed Construction & Support
"convective opening" (claim 14)	Plain and ordinary meaning as informed by the intrinsic evidence; no construction necessary	"opening at the end of a structure configured to receive a convective fluid flow"

Defendants agree that the '521 patent teaches that the claimed "convective openings 140 'comprise open voids that run the length of backplane 105.'" Dkt. 54 at 18 (citing Ex. 2, '521 patent, 3:49-50). This should end the inquiry—Defendants' proposal is inconsistent with and likely excludes this express teaching. Moreover, as explained below, Defendants' proposed construction is confusing, unnecessary, and unsupported by the specification.

First, while Defendants assert that their proposal clarifies "what makes these one or more openings 'convective'" (Dkt. 54 at 17), Defendants fail to define which "end" (*e.g.*, top or bottom) of the "structure" is the end that "receives" a convective fluid flow. Second, Defendants do not identify with particularity what specific portion of the "opening" is deemed to comprise "the end" of said "opening" under their proposal. Defendants appear to argue that the "the end" includes only the planar interface between convective opening 140 and Venturi chamber 222. Dkt. 54 at 19 (describing Defendants' annotated FIG. 2D and 1D). To the extent that is Defendants' proposal, it should be rejected as inconsistent with the claims and the specification, as explained below.

Claim 14 requires "drawing a second airflow of heated air from the one or more convective openings." Airflow 240 is the claimed second airflow. Ex. 2 at 4:35-44 ("As show in FIG. 2D . . . air drawn into fan 220 must flow into Venturi chamber 222 either through the convective openings 140 of backplane 105 (shown generally by airflow 240), or drawn in from above Venturi chamber 222 (shown generally by airflow 245). The airflow 240 flowing up from backplane 105 will be heated by the heat dissipated from high powered internal electronics."). First, the specification discloses that the "second airflow"— airflow 240—is drawn from ***below*** the Venturi chamber, not the planar interface between convective opening 140 and Venturi chamber 222. Ex. 2 at 4:50-58. ("The combination of drawing both the ***heated airflow 240 from backplane 105*** and the ambient airflow 245 from above into Venturi chamber 222 and through fan 220 produce a Venturi effect. That is, the ambient airflow 245 flowing over the top of wall 225 generates an increased airflow in the ***heated airflow 240 coming from below***) (emphasis added). Second, claim 14 also requires "drawing a first airflow across one or more convective openings of the heatsink, wherein the first airflow does not flow into the one or more convective openings of the heatsink." Defendants do not explain how it would even be possible to draw the first claimed airflow across a planar "opening at the end of a structure configured to receive a convective fluid flow" without the first airflow flowing into that same planar opening. (Dkt. 54 at 20).

2. "a sealed environment" ('521 Patent, claim 14)

Disputed Claim Term of Phrase	Plaintiff's Proposed Construction & Support	Defendants' Proposed Construction & Support
"a sealed environment" (claim 14)	Plain and ordinary meaning as informed by the intrinsic evidence; no construction necessary	"a closed environment that does not need to be weatherproof"

Defendants agree that the term "seal" is "commonly understood." Dkt. 54 at 21.

Accordingly, the meaning of the disputed term is clear and will be readily understandable to the jury. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (recognizing that "district courts are not (and should not be) required to construe every limitation present in a patent's asserted claims") (emphasis in original); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 ("[T]he ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.").

Here, Defendants present no legally sound reason to replace the disputed term with "a closed environment that does not need to be weatherproof." Despite agreeing that "seal" has a commonly understood meaning, Defendants proffer eight separate dictionary definitions. Dkt. 54 at 21-22. Defendants essentially argue that construction is required because "it is not clear" which, if any, of their dictionary definitions apply. *Id.* at 22. First, Defendants' proposed construction is not consistent with any of the dictionary definitions that Defendants proffer. Second, Defendants' position is not supported by the intrinsic record as it improperly imports a negative limitation (*i.e.*, "does not need to be weatherproof") from the specification into the claim. But there is no basis to import a negative limitation here where there has been no disavowal or disclaimer or claim scope. *See Nuance Commc'n, Inc. v. Abbyy Software House, Inc.*, No. C 08-0912 JSW, 2012 WL 1188903, at *4-*5 (N.D. Cal. Apr. 9, 2012) (declining to import negative limitation "without human intervention" into construction of "electronically analyzing," where there was no clear disclaimer or disavowal and specification provided that human intervention can be involved); *Paltalk Holdings, Inc. v. Microsoft Corp.*, No. 2:06cv367-DF, 2008 WL 4830571, at *18 (E.D. Tex. July 29, 2008) (declining to add a negative limitation absent "clear disavowal, disclaimer, or estoppel") (citing *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003);

Vehicle IP, LLC v. AT&T Mobility, LLC, 594 Fed. Appx. 636, 641-42 (Fed. Cir. 2014) (same).

III. CONCLUSION

For the foregoing reasons, the Court should reject Defendants' proposed constructions.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I certify that the foregoing document was filed electronically on April 1, 2025 pursuant to Local Rule CV-5(a) and has been served on all counsel who have consented to electronic service.

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