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

METASWITCH NETWORKS LTD., et al.	§	
	§	
v.	§	CASE NO. 2:14-CV-744–JRG-RSP
	§	
GENBAND USA LLC, et al.	§	
	§	

CLAIM CONSTRUCTION MEMORANDUM AND ORDER

On July 15, 2015, the Court held a hearing to determine the proper construction of the disputed claim terms in United States Patents No. 6,807,283; 6,816,482; 7,657,018; 7,881,282; 8,488,768; 8,611,522; and 8,687,640, asserted by Plaintiffs Metaswitch Networks Ltd. and Metaswitch Networks Corp. ("Metaswich") against Defendants GENBAND USA LLC and GENBAND Management Services Corp. ("Genband"),[1] as well as United States Patents No. 6,879,667; 7,162,024; 7,680,252; 7,953,210; and 8,600,006, asserted by Genband against Metaswitch.

After considering the arguments made by the parties at the hearing and in the parties' claim construction briefing as to Metaswitch's patents (Dkt. Nos. 89, 101, and 109) and as to Genband's patents (Dkt. Nos. 87, 102, 107),[2] the Court issues this Claim Construction Memorandum and Order.

---

[1] Although this corporate name sometimes appears in all capitals as "GENBAND," the present Claim Construction Memorandum and Order generally refers to "Genband." The choice of capitalization has no substantive significance in this Claim Construction Memorandum and Order.

[2] Citations to documents (such as the parties' briefs and exhibits) in this Claim Construction Memorandum and Order refer to the page numbers of the original documents rather than the page numbers assigned by the Court's electronic docket unless otherwise indicated.

Table of Contents

I. BACKGROUND

Metaswitch brings suit alleging infringement of United States Patents No. 6,807,283 ("'283 Patent"), 6,816,482 ("'482 Patent"), 7,657,018 ("'018 Patent"), 7,881,282 ("'282 Patent"), 8,488,768 ("'768 Patent"), 8,611,522 ("'522 Patent"), and 8,687,640 ("'640 Patent") (collectively, the "Metaswitch Patents") by Genband.

Genband counterclaims, alleging infringement of United States Patents No. 6,879,667 ("'667 Patent"), 7,162,024 ("'024 Patent"), 7,680,252 ("'252 Patent"), 7,953,210 ("'3210 Patent"),[3] and 8,600,006 ("'006 Patent") (collectively, the "Genband Patents") by Metaswitch.

In general, the patents-in-suit relate to telecommunications. The Court herein addresses the patents-in-suit in the groupings used by the parties in their claim construction briefing.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with preliminary constructions for the disputed terms with the aim of focusing the parties' arguments and facilitating discussion as to those terms. Those preliminary constructions are set forth below within the discussion for each term.

II. LEGAL PRINCIPLES

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *See id.* at 1313; *see also C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns*

[3] The parties identify this patent as the "'3210 Patent" because a different patent with the same last three digits has been asserted in other litigation between the parties. *See Genband USA LLC v. Metaswitch Networks Ltd., et al.*, No. 2:14-CV-33, Dkt. No. 135 (E.D. Tex. Apr. 2, 2015).

Group, Inc., 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; *accord Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

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

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *accord Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor's lexicography governs. *Id.* The specification may also resolve the meaning of ambiguous claim terms "where the ordinary and accustomed meaning of

the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex*, 299 F.3d at 1325. But, "[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *accord Phillips*, 415 F.3d at 1323.

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

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

evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

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

III. THE PARTIES' STIPULATED TERMS

The parties have reached agreement on constructions for certain terms, as stated in their Joint Claim Construction and Prehearing Statement (Dkt. No. 71 at 1), in their Joint Claim Construction Chart (Dkt. No. 113 at App'x A), and in their briefing. The parties' agreements are set forth in Appendix A to this Claim Construction Memorandum and Order.

IV. U.S. PATENT NO. 8,488,768 (Metaswitch)

The '768 Patent, titled "System and Method of Providing a Single Service Destination in a Telecommunications Network," issued on July 16, 2013, and bears a filing date of December 19, 2008. The Abstract of the '768 Patent states:

> A method and apparatus for providing a single service destination in a telecommunications network is disclosed. In particular, but not exclusively, disclosed embodiments relate to the provision of a single mailbox for multi-service users having access to a plurality of different telephony services.

A. "first service provider network" and "second, different service provider network" (Claim 1)

Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"first service provider network": "A home network providing more than merely local, internal telephone connections" "second, different service provider network": "A foreign network providing more than merely local, internal telephone connections"

Dkt. No. 89 at 1; Dkt. No. 101 at 1.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary constructions: "first service provider network" means "a network that provides more than merely local, internal telephone connections and that is different and distinct from the 'second, different service provider network'" and "second, different service provider network" means "a network that provides more than merely local, internal telephone connections and that is different and distinct from the 'first service provider network.'"

(1) The Parties' Positions

Metaswitch argues that "[a]s to its attempt to read in the 'home' and 'foreign' limitations, Genband provides no guidance on what those limitations mean or what substantive effect their insertion into the claim language is meant to have." Dkt. No. 89 at 2. Instead, Metaswitch argues, the "first" and "second" networks need only be different. *Id.* As to Genband's proposal of "providing more than merely local, internal telephone connections," Metaswitch argues that the prosecution history relied upon by Genband contains no disclaimer in this regard. *Id.* at 3–4.

Genband responds that "[i]n order to distinguish the prior art and gain allowance [during prosecution], Metaswitch clarified that the first and second service provider networks must provide more than merely local, internal telephone connections." Dkt. No. 101 at 2. Genband

also argues that, during prosecution, "Metaswitch explained how the two networks differ—specifically, the first network is a 'home network' and the second network is a different, 'foreign network' . . . ." *Id.* at 3.

Metaswitch replies that the prosecution history contains no "clear and unambiguous disavowal that networks providing merely local, internal telephone connections can't be *a* service provider network—they just can't be two different service provider networks." Dkt. No. 109 at 1. Metaswitch also argues that "there is no basis in the intrinsic evidence to import" a requirement of separate and distinct networks, and Metaswitch urges that the use of "i.e." in the prosecution history does not give rise to any clear and unambiguous disclaimer. *Id.* "Moreover," Metaswitch argues, "the patentee's use of 'i.e.' in the file history defines, if anything, the words 'home' and 'foreign'—neither of which appears in the claim," and the requirement of different networks "is already contained in the claim language itself and requires no further construction." *Id.* at 2.

(2) Analysis

The disputed terms were added to the claims by amendment during prosecution. *See, e.g.*, Dkt. No. 101, Ex. 10, Dec. 15, 2011 Amendment at 2. The patentee explained:

> Claims 1 and 19 have been amended to recite receiving and altering steps that are carried out in the service provider network where the unanswered call was received (*i.e.*, the "home" network), and the altered message is then routed to a mailbox in a service provider network which is different from the service provider network where the unanswered call was received (*i.e.*, a "foreign" network).

Id. at 8. In particular, the parties dispute the significance of the patentee's use of "i.e."

On one hand, whereas "e.g." usually signals an example, "i.e" usually signals a definition. *See, e.g., Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1373 (Fed. Cir. 2014); *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1334 (Fed. Cir. 2009). On the other

hand, "i.e." is not always limiting. *See, e.g., Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1370–71 (Fed. Cir. 2012) (based on the context of the statements and the overall prosecution history, finding the applicant's use of "each side of the disc—i.e., each recording plane" was merely exemplary and not a clear disclaimer). "Whether a statement to the PTO that includes 'i.e.' constitutes a clear and unmistakable disavowal of claim scope depends on the context." *Braintree Labs., Inc. v. Novel Labs., Inc.*, 749 F.3d 1349, 1355 (Fed. Cir. 2014).

On balance, the patentee used the terms "home" and "foreign" merely to distinguish between two different service provider networks. Metaswitch's expert persuasively reinforces such a reading. *See* Dkt. No. 89, Ex. 13, Apr. 30, 2015 Mir Rebuttal Decl. at ¶ 50 ("[T]he point made by the patentee was that the first service provider network is one that receives an unanswered call, and that the second service provider network must be different from that network."); *see also id.* at ¶ 51. Thus, this prosecution history does not support the disclaimer proposed by Genband. *See Omega Eng'g v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) ("As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on *definitive* statements made during prosecution.") (emphasis added); *see also id.* at 1325–26 ("[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both *clear and unmistakable*.") (emphasis added); *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1332 (Fed. Cir. 2004) ("Because the statements in the prosecution history are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable departure from the ordinary meaning of the term . . . .").

Other references to a "foreign" network, cited by Genband, are similarly unavailing. *See* Dkt. No. 101, Ex. 10, Dec. 15, 2011 Amendment at 9 ("Duffy fails to disclose two respective

steps of *altering* signalling information associated with a destination in a foreign network, and *adding* signalling information associated with a foreign network telephony service, as recited by Claim 1.").

The parties also dispute the significance of the following statements by the patentee in subsequent prosecution history:

> Duffy discloses, *inter alia*, a system that connects two local, on-site PBX telephone switching systems to an IP network 101. *See*, e.g., FIG. 11B; Pages 26–27. Local caller PBX telephone 131 is connected to a local gateway server 101, which is connected to IP network 101. Called IP telephone 241 is connected to a local gateway server 210, which is also connected to IP network 101. Applicants submit that the only "service provider network" that connects the caller PBX telephone 131 to IP telephone 241 is IP network 101, and that the two PBX switching systems merely provide *local connectivity* for PBX telephone 131 and IP telephone 241. *See*, e.g., Page 2, lines 8–11 ("PBXs, which are well-known and widely used within government and industry, are *telecommunications switching systems maintained at one or more user sites* that are used to connect *internal station* to station telephone calls and *to the PSTN*"; emphasis added).
>
> Accordingly, Duffy fails to disclose a second service provider network, as recited by Claims 1 and 19. Duffy's two local PBX switching systems are not themselves "service provider networks" because each one merely services the local, internal telephones that are installed at the two user sites.

Dkt. No. 101, Ex. 8, May 29, 2012 Amendment After Final Office Action Pursuant to 37 C.F.R. § 1.116 at 8 (emphasis the patentee's).

Unlike the patentee's use of "i.e.," discussed above, here the patentee clearly and unambiguously explained that a PBX switching system that provides only local connectivity is not a "service provider network." *See Omega Eng'g*, 334 F.3d at 1324; *see also Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1381 (Fed. Cir. 2011) ("The patentee is bound by representations made and actions that were taken in order to obtain the patent."); *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995) ("Claims may not be construed one way in order to obtain their allowance and in a different way against accused

infringers."). Indeed, as Genband has pointed out, the patentee specifically explained that whereas the "IP network 101" of Duffy was a service provider network, neither PBX network was a service provider network because the PBX networks provided only "local connectivity." Dkt. No. 101, Ex. 8, May 29, 2012 Amendment After Final Office Action Pursuant to 37 C.F.R. § 1.116 at 8 (quoted above). The opinion of Metaswitch's expert—that "the patentee explicitly acknowledged that the IP-PBX network could be a service provider network, but . . . since the Duffy reference only disclosed one of them, it was distinguishable because it did not disclose a second, different service provider network"—does not undermine the definitive statements identified above. *See* Dkt. No. 89, Ex. 13, Apr. 30, 2015 Mir Rebuttal Decl. at ¶ 53.

Finally, the parties dispute whether the first and second networks must be distinct such that they can communicate with one another only through intermediary networks or devices. Figure 5 of the '768 Patent appears to illustrate such an embodiment. *See* '768 Patent at 10:8–23. Although the parties substantially agree that the first and second networks must be different and distinct,[4] Genband has failed to demonstrate that the first and second networks must be separated by some "intermediary" network or device.

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

Term	Construction
"first service provider network"	**"a network that provides more than merely local, internal telephone connections and that is different and distinct from the 'second, different service provider network'"**

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

"second, different service provider network"	**"a network that provides more than merely local, internal telephone connections and that is different and distinct from the 'first service provider network'"**

V. U.S. PATENT NO. 8,611,522 (Metaswitch)

The '522 Patent, titled "Telephone Call Processing Method and Apparatus," issued on December 17, 2013, and bears a priority date of September 4, 2006. The Abstract of the '522 Patent states:

> A method and apparatus for processing telephone calls in a packet-based telephony service is disclosed. A store of telephone party identifiers is maintained for multi-service users having access to the packet-based telephony service and an alternate telephony service. Incoming signaling information for telephone calls in the packet-based telephony service is monitored and outgoing signaling information may be altered with reference to the store. An alteration may involve replacing telephony party identification data associated with one telephony service for telephony party identification data associated with another telephony service. The invention allows a multi-service user to be consistently identified by other telephony users by a single telephony party identifier instead of one telephony party identifier for each service they subscribe to. Further, a multi-service user can be identified at the call destination by a single telephony party identifier, irrespective of which telephony service is used to make the call.

A. "multi-service user" (Claims 1, 5, 8, 10, 12)

Metaswitch Proposed Construction	Genband Proposed Construction
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"a subscriber to both packet-based service and PSTN service"

Dkt. No. 89 at 4; Dkt. No. 101 at 5.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject any requirement of particular services."

(1) The Parties' Positions

Metaswitch argues that "Genband attempts to significantly narrow the plain meaning of this term by improperly importing one described embodiment into the claims." Dkt. No. 89 at 5. "In addition," Metaswitch argues, "Genband's construction reads out the majority of the described embodiments, which refer generically to services provided by a 'packet-based' carrier network and a 'circuit-switched' carrier network." *Id.* Metaswitch submits that the PSTN is merely one example of a circuit-switched network. *Id.*

Genband responds that the claims at issue require the PSTN and a packet-based network, which Genband argues is confirmed by the prosecution history. Dkt. No. 101 at 5. Genband emphasizes that the phrase "circuit-switched" does not appear in the claims. *Id.* at 6.

Metaswitch replies "[t]here is no reason to restrict the services to two particular types of services when the plain meaning of this simple term is not so limited," and Metaswitch argues that there is no lexicography or disclaimer. Dkt. No. 109 at 2–3.

(2) Analysis

The '522 Patent specification discloses that "[a] multi-service user subscribes to two or more telephony services." '522 Patent at 3:5–6. The claims at issue, namely Claims 1, 5, 8, 10, and 12, explicitly recite the "PSTN." Thus, a fair reading is that where the claims require the PSTN, the claims recite the PSTN. Likewise, the claims also explicitly recite a "packet-based telephony network."

On balance, although the specification refers to cellular mobile networks, such as GSM, as well as wireless local area networks, such as a "wireless 'hotspot'" (*see id.* at 9:22–38), the claims are sufficiently clear as to when the PSTN or a packet-based telephony network is required. Indeed, the above-cited portion of the specification, together with the recital of the

PSTN and a packet-switched telephony network in the claims, suggest that the term "multi-service user," by itself, can refer to any type of network. *Id.*

Finally, the prosecution history cited by Genband bears on other claim language or on a particular configuration rather than on the meaning of the term "multi-service user" in general. *See* Dkt. No. 101, Ex. 11, Aug. 13, 2013 Response at 4. No relevant definitive statements are apparent. *See Omega Eng'g*, 334 F.3d at 1324.

The Court therefore hereby expressly rejects Genband's proposed construction. No further construction is necessary. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims."); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) ("Unlike *O2 Micro*, where the court failed to resolve the parties' quarrel, the district court rejected Defendants' construction.").

The Court therefore hereby construes **"multi-service user"** to have its **plain meaning**.

B. "wherein the further telephony party identification data is inserted to allow the called party to identify the multi-service user as the calling party for the telephone call" (Claim 1)

This term was originally presented as a disputed term for construction, but "GENBAND is no longer pursuing construction of the phrase '[w]herein the further telephony party identification data is inserted to allow the called party to identify the multi-service user as the calling party for the telephone call' from Claim 1 of the '522 Patent." Dkt. No. 101 at 4 n.2. The Court therefore does not construe this term.

C. "the PSTN telephony party identifier" (Claims 1, 5, 10, 12)

Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"a telephony party identifier associated with the landline PSTN"

Dkt. No. 89 at 9; Dkt. No. 101 at 7.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject 'landline PSTN.'"

(1) The Parties' Positions

Metaswitch argues that Genband's proposal of a "landline" limitation should be rejected because "cellular, mobile, and wireless networks are expressly described as embodiments within the specification . . . ." Dkt. No. 89 at 9 (citing '522 Patent at 9:22–33). Metaswitch also argues that the prosecution history cited by Genband contains no disclaimer. Dkt. No. 89 at 9–10.

Genband responds that the prosecution history requires excluding cellular networks. Dkt. No. 101 at 7–8.

Metaswitch replies that the prosecution history contains no clear disavowal. Dkt. No. 109 at 3. Metaswitch also reiterates that Genband's proposed construction excludes cellular embodiments and other wireless embodiments expressly described in the specification. *Id.*

(2) Analysis

Although the specification refers to cellular mobile networks, such as GSM, as well as wireless local area networks, such as a "wireless 'hotspot'" (*see* '522 Patent at 9:22–38), the disputed term itself refers to the "PSTN." Nonetheless, Genband's proposal of including the term "landline" in the construction would add needless redundancy and confusion because to

whatever extent, if any, the term "PSTN" necessarily requires a "landline," a "PSTN" limitation is already expressly recited.

As for the prosecution history, the examiner rejected claims as unpatentable over the "Ohura" reference (United States Patent Application No. 2005/008008) in view of the "Liu" reference (United States Patent No. 7,742,768). *See* Dkt. No. 101, Ex. 12, Nov. 23, 2011 Amendment at 7. The patentee argued that "Liu's dual mode subscriber device 130 may have a cellular telephone number, but this device is not associated with a PSTN telephony party identifier." *Id.* at 8. Although this prosecution history suggests that a cellular identifier is distinct from a PSTN identifier, the patentee did not limit the PSTN identifier to being associated with a "landline." Further, the patentee's reference to a "cellular telephone number" was in the context of arguing that "Liu is not concerned with consistent identification of a multi-service user." *Id.* Genband's suggestion of a clear and unambiguous disclaimer of a "cellular" identifier is therefore rejected. *See Omega Eng'g*, 334 F.3d at 1324; *Golight*, 355 F.3d at 1332 ("Because the statements in the prosecution history are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable departure from the ordinary meaning of the term . . . .").

The Court therefore hereby expressly rejects Genband's proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court accordingly hereby construes **"the PSTN telephony party identifier"** to have its **plain meaning**.

D. "whereby the multiservice user is identified, when conducting an outgoing telephone call via the packet-based telephony service, by means of the PSTN telephony party identifier" (Claim 1) and "whereby the multiservice user is identified, when initiating a telephone call via the packet-based telephony network, by means of the PSTN telephony party identifier, at the called party" (Claim 5)

Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"when the multi-service user initiates a telephone call via the packet-based network, the called party identifies the multi-service user by reference to the multiservice user's PSTN telephony party identifier"[5]

Dkt. No. 89 at 10; Dkt. No. 101 at 9.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject Plaintiff's suggestion that these 'whereby' clauses do not limit the claims."

(1) The Parties' Positions

Metaswitch submits that "Genband appears to limit these two phrases to identifications made by the 'called party' as opposed to some other (*e.g.*, intermediate) user or device." Dkt. No. 89 at 11. As to Genband's proposal of the phrase "by reference to," Metaswitch argues that "[i]t is unclear in what manner the called party must 'reference' the PSTN telephony party identifier in order to satisfy this construction." *Id.*

Genband responds that "Claims 1 and 5 explicitly require that the multiservice user is identified *by the called party*—not, as Metaswitch asserts, by an unidentified 'intermediate user or device.'" Dkt. No. 101 at 9. Genband also argues that "Metaswitch does not cite any teaching in the '522 Patent of an intermediate user or device identifying the multi-service user." *Id.* at 10.

[5] "GENBAND does not oppose replacing 'by reference to' with the corresponding language from the claim: 'by means of.'" Dkt. No. 101 at 10.

Genband further argues that "[w]here, as here, a whereby clause states conditions material to patentability, the whereby clause limits the claims." *Id.*

Metaswitch replies that "Genband's lengthy and confusing construction appears merely to reiterate the contested phrase using the same (or similar) words in a different order." Dkt. No. 109 at 4. Metaswitch also argues that "[t]he whereby clauses are . . . not material to patentability and were not asserted to be material to patentability during prosecution." *Id.*

(2) Analysis

Claims 1 and 5 of the '522 Patent recite (emphasis added):

> 1. A method of processing telephone calls in a multi-carrier telecommunications network including a local exchange to connect a telephone associated with a multi-service user to a public switched telephone network (PSTN) and to a packet-based telephony network, the method comprising:
>
> at a softswitch in the packet-based telephony network:
>
> maintaining a store of telephony party identifiers for multi-service users having access to telephone call services via a plurality of telephony networks including the packet-based telephony network and the PSTN, each of the multi-service users having a PSTN telephony party identifier whereby the user is identified in the PSTN and whereby telephone calls are routed to the multi-service user by the PSTN without passing through the packet-based telephony network and a packet-based telephony party identifier whereby the user is identified in the packet based telephony network and whereby telephone calls are routed to the user by the packet-based telephony network identifier without passing through the PSTN;
>
> monitoring incoming signaling information for telephone calls in the packet-based telephony network and transmitting outgoing signaling information for the calls;
>
> detecting initial telephony party identification data contained in the incoming signaling information for a telephone call between a calling party and a called party, the initial telephony party identification data comprising the packet-based telephony network identifier which identifies the multi-service user in the packet-based service, wherein the multi-service user is the calling party for the telephone call; and
>
> in response to detecting the initial telephony party identification data, determining from the store further telephony party identification data, and inserting the further telephony party

identification data into outgoing signaling information for the telephone call, the further telephony party identification data comprising the PSTN telephony party identifier,

wherein the further telephony party identification data is inserted to allow the called party to identify the multi-service user as the calling party for the telephone call, and

whereby the multi-service user is identified, when conducting an outgoing telephone call via the packet-based telephony service, by means of the PSTN telephony party identifier.

* * *

5. The method of claim 1, further comprising:

for a first telephone call between the multi-service user, acting as a calling party, and a called party:

detecting first initial telephony party identification data contained in the incoming signaling information for the first telephone call, and

in response to detecting the first initial telephony party identification data, determining from the store first further telephony party identification data, and inserting the first further telephony party identification data into outgoing signaling information for the first telephone call, the first further telephony party identification data comprising the PSTN telephony party identifier,

whereby the multi-service user is identified, when initiating a telephone call via the packet-based telephony network, by means of the PSTN telephony party identifier, at the called party; and

for a second telephone call between the multi-service user, acting as a called party, and a further multi-service user, acting as a calling party:

detecting second initial telephony party identification data contained in the incoming signaling information for the second telephone call, the second initial telephony party identification data comprising the PSTN telephony party identifier; and

in response to detecting the second initial telephony party identification data, determining from the store second further telephony party identification data, and inserting the second further telephony party identification data into outgoing signaling information for the telephone call,

whereby the multi-service user is identified, when receiving a telephone call via the packet-based telephony network, by means of the PSTN telephony party identifier.

As a threshold matter, the parties dispute whether the "whereby" clauses are limitations of the claims. On one hand, "[a] 'whereby' clause that merely states the result of the limitations in the claim adds nothing to the patentability or substance of the claim." *Tex. Instruments Inc. v.*

U.S. Int'l Trade Comm'n, 988 F.2d 1165, 1172 (Fed. Cir. 1993) ("whereby the fluid will not directly engage the device and electrical connection means at high velocity, and the conductors will be secured against appreciable displacement by the fluid");[6] *accord Lockheed Martin Corp. v. Space Sys./Loral, Inc.*, 324 F.3d 1308, 1319 (Fed. Cir. 2003) (citing *Texas Instruments*); *Minton v. Nat'l Ass'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381 (Fed. Cir. 2003) (as to "whereby the security is traded efficiently between the first [offering] individual and the second [replying] individual," finding that a "whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited") (square brackets in original). On the other hand, "when the 'whereby' clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention." *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329 (Fed. Cir. 2005).

Here, although the disputed terms are introduced by the word "whereby," the terms set forth material limitations as to how the multi-service user is identified. Also, as Genband has noted, the patentee evidently relied upon these limitations during prosecution.[7] The Court

---

[6] "The 'whereby/to preclude' clauses of [the] claims [at issue] merely describe the result of arranging the components of the claims in the manner recited in the claims: the fluid does not directly engage the device and the electrical connection means because the gate through which the fluid enters is remote from them; the conductors are secured against appreciable displacement by the fluid because they are clamped in notches by the upper and lower halves of the mold die." *Id.*

[7] *See* Dkt. No. 101, Ex. 12, Nov. 23, 2011 Amendment at 8:

> . . . Applicants note that the claimed invention provides many advantages over Ohura. For example, when the multi-service user makes a call, the destination always receives the PSTN telephony party identifier irrespective of whether the call is routed through the packet-based network or the PSTN so that the multi-service user can be consistently identified by other users of the system by the PSTN telephony party identifier instead of by one telephony party identifier for each service to which they subscribe.

therefore rejects Metaswitch's contention that the disputed terms are not limitations. *See Hoffer*, 405 F.3d at 1329.

As for the proper construction, the prosecution history cited by Genband does not clearly specify that the identification is performed by the called party. *See* Dkt. No. 101, Ex. 12, Nov. 23, 2011 Amendment at 8; *see also Omega Eng'g*, 334 F.3d at 1324 ("As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on *definitive* statements made during prosecution.") (emphasis added).

In Claim 5, identification "at the called party" is already recited within the disputed term itself, but Genband has not sufficiently shown that *at* the called party necessarily means *by* the called party. Genband has also cited other claim language, but to whatever extent other claim language requires such a limitation, that language need not be reproduced in a construction of the "whereby" terms.

The Court therefore hereby expressly rejects Genband's proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court therefore hereby construes **"whereby the multiservice user is identified, when conducting an outgoing telephone call via the packet-based telephony service, by means of the PSTN telephony party identifier"** and **"whereby the multiservice user is identified, when initiating a telephone call via the packet-based telephony network, by means of the PSTN telephony party identifier, at the called party"** to have their **plain meaning**.

VI. U.S. PATENT NO. 8,687,640 (Metaswitch)

The '640 Patent, titled "Controlling Communication Sessions," issued on April 1, 2014, and bears a filing date of March 22, 2011. The Abstract of the '640 Patent states:

> There is provided a method of enabling media bypass for a media gateway in a telecommunications network which includes a plurality of media gateways via which a signaling path for transfer of signaling information for setup of a communication session between endpoint devices can be established and via which a media path for transfer of media data between the endpoint devices during the communication session can be established. The method includes receiving, at the media gateway, an inbound communication session setup request message requesting setup of a communication session between an originating endpoint device and a terminating endpoint device in the telecommunications network, the inbound communication session setup request message being transmitted along an inbound signaling path to the media gateway; transmitting, from the media gateway, an outbound communication session setup request message in response to receiving the inbound communication session setup message, the outbound communication session setup request message being transmitted along an outbound signaling path from the media gateway; and including preceding device connectivity data in the outbound communication session setup request message, the preceding device connectivity data indicating at least one media connectivity setting for at least one preceding device which is located before the media gateway in the inbound signaling path, the at least one connectivity setting identifying one or more other devices to which the at least one preceding device is configured to be connectable in the media path, to enable bypass of the media gateway in the media path if an ensuing device in the outbound signaling path determines that such bypass should be conducted.

A. "media connectivity setting" (Claims 1, 2, 4, 15, 22, 26, 28, and 30)

Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"a setting describing the parts, domains or regions of a telecommunications network to which the device is able to transmit and receive media data"

Dkt. No. 89 at 12; Dkt. No. 101 at 11.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "a setting describing one or more parts, domains, or

regions of a telecommunications network to which a device is able to transmit and receive media data."

(1) The Parties' Positions

Metaswitch argues that this term "is already clear from the context of the claims themselves" and "[a]ny further construction will only be redundant and confuse the jury." Dkt. No. 89 at 12. Metaswitch urges that Genband's proposal of "parts, domains or regions" "would not be helpful to the jury and [would] create more ambiguity where there is none." *Id.* Metaswitch submits that "[o]ne of ordinary skill in the art . . . would understand this term would at least include device identifiers, such as IP addresses, as well as provider-dependent settings, such as domain, network, gateway, or trunk identifiers." *Id.* at 13. Metaswitch concludes that "[t]his term should therefore be accorded its plain and ordinary meaning: information related to a device's media connectivity." *Id.*

Genband responds that "[t]his phrase describes the information about a preceding device that is included in a session setup request message." Dkt. No. 101 at 11.

Metaswitch replies: "One of ordinary skill in the art would understand . . . that a 'media connectivity setting' is information related to media connectivity that is used to identify potential media bypass opportunities. There is no basis for artificially limiting this term, especially by adding the vague language Genband proposes." Dkt. No. 109 at 5.

(2) Analysis

Claim 1 of the '640 Patent, for example, recites (emphasis added):

> 1. A method of enabling media bypass for a media gateway in a telecommunications network which includes a plurality of media gateways via which a signaling path for transfer of signaling information for setup of a communication session between endpoint devices can be established and via which a media path for transfer of media data between said endpoint devices during said communication session can be established, said method comprising:

receiving, at said media gateway, an inbound communication session setup request message requesting setup of a communication session between an originating endpoint device and a terminating endpoint device in said telecommunications network, said inbound communication session setup request message being transmitted along an inbound signaling path to said media gateway;

transmitting, from said media gateway, an outbound communication session setup request message in response to receiving said inbound communication session setup message, said outbound communication session setup request message being transmitted along an outbound signaling path from said media gateway; and

including preceding device connectivity data in said outbound communication session setup request message, said preceding device connectivity data indicating *at least one media connectivity setting* for at least one preceding device which is located before said media gateway in said inbound signaling path, *the at least one media connectivity setting identifying one or more other devices to which the preceding device is configured to be connectable in said media path*, to enable bypass of said media gateway in said media path if an ensuing device in said outbound signaling path determines that such bypass should be conducted.

The specification discloses:

The at least one media connectivity settings *may comprise one or more of a domain identifier, a network identifier, and a gateway identifier*. Hence, a number of different settings can be used to identify potential media bypass opportunities.

* * *

A media gateway has one or more media connectivity settings including one or more parts of telecommunications network 1 via which a respective device is able to transmit and receive media data. A device will typically not have access to all parts of telecommunications network 1 so media connectivity settings for the device *describes the parts, domains or regions of telecommunications network 1 to which the device does have media connectivity*.

* * *

The media connectivity settings for a given device will typically be *defined by the service provider providing the device*. A given media gateway may comprise a plurality of input and output communication trunks via which communication sessions can be conducted. Each trunk may have different associated media connectivity settings which are configurable by the service provider responsible for operating the media gateway or other user.

’640 Patent at 4:39–42, 11:30–37 & 11:49–56 (emphasis added).

Metaswitch has not adequately demonstrated that the term "media connectivity setting" has a well-known meaning in the art. Thus, rather than limiting the disputed term to particular embodiments or reading out embodiments, Genband's proposed construction explains the meaning of the disputed term as it is used in the '640 Patent, such as set forth above. *See Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1144–45 (Fed. Cir. 2005) (construing term "board" to mean "wood cut from a log" in light of the patentee's consistent usage of the term; noting that patentee "is not entitled to a claim construction divorced from the context of the written description and prosecution history"); *see also Am. Piledriving Equip., Inc. v. Geoquip, Inc.*, 637 F.3d 1324, 1333 (Fed. Cir. 2011) ("[T]he consistent reference throughout the specification to the 'eccentric weight portion' as structure extending from the face of the gear makes it apparent that it relates to the invention as a whole, not just the preferred embodiment.").

Construction is therefore appropriate to assist the finder of fact in understanding the disputed term. *See TQP Dev., LLC v. Merrill Lynch & Co., Inc.*, No. 2:08-CV-471, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J.) ("The Court believes that some construction of the disputed claim language will assist the jury to understand the claims."). Metaswitch properly notes, however, that multiple media connectivity settings may be used.

The Court accordingly hereby construes **"media connectivity setting"** to mean **"a setting describing one or more parts, domains, or regions of a telecommunications network to which a device is able to transmit and receive media data."**

B. "to enable bypass of said media gateway in said media path if an ensuing device in said outbound signaling path determines that such bypass should be conducted" (Claims 1, 26) and "to enable bypass of said media gateway and at least one other preceding device in said media path if an ensuing device in said outbound signaling path determines that such bypass should be conducted" (Claim 2)

Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"based on the preceding device connectivity data, an ensuing device determines whether the media gateway should be bypassed"

Dkt. No. 89 at 13; Dkt. No. 101 at 12.[8]

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "based at least in part on the preceding device connectivity data, an ensuing device determines whether said media gateway should be bypassed."

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term.

(1) The Parties' Positions

Metaswitch argues: "Genband attempts to limit the bypass determination 'based on the *preceding* device connectivity data.' This construction is inconsistent with the specification, which teaches a comparison with *ensuing* device connectivity data may also be used along with an optional bypass mode setting (as well as other criteria)." Dkt. No. 89 at 13–14.

Genband responds that "[t]he claim language and prosecution history make clear that an ensuing device determines whether the media gateway should be bypassed 'based on preceding device connectivity data.'" Dkt. No. 101 at 12.

[8] The parties have also identified Claims 28 and 30, which include similar terms.

Metaswitch replies that Genband's proposal "merely restates the claimed phrase using similar terms in a different order." Dkt. No. 109 at 5–6.

(2) Analysis

Claim 1, for example, recites in relevant part (emphasis added): "*said preceding device connectivity data* indicating at least one media connectivity setting for at least one preceding device which is located before said media gateway in said inbound signaling path, the at least one media connectivity setting identifying one or more other devices to which the preceding device is configured to be connectable in said media path, *to enable bypass of said media gateway in said media path if an ensuing device in said outbound signaling path determines that such bypass should be conducted*." The surrounding claim language thus demonstrates that the determination of whether a media gateway should be bypassed is based at least in part upon "said preceding device connectivity data."

The specification, as well as other claims, demonstrate that the bypass determination can be based not only on "preceding device connectivity data" but also on settings such as a "bypass mode setting." *See* '640 Patent at 14:36–44 & 25:21–25 ("bypass mode settings can act to override media bypass functionality of the invention"); *see also id.* at Cls. 8 & 9. For example, a "bypass mode setting" can be used to prevent a bypass that would otherwise occur, "for example . . . if a media gateway is required to perform lawful intercept of media data." *Id.* at 25:17–18.

Such a reading is not inconsistent with the prosecution history cited by Genband, in which the patentee referred to using preceding device connectivity data. Dkt. No. 101, Ex. 15 Oct. 21, 2013 Amendment at 16. Indeed, Genband itself submits that its proposed construction "does not preclude the ensuing device from considering other information beyond preceding

device connectivity data. Rather, GENBAND's construction merely reflects that the ensuing device's determination must at least be based on the preceding device connectivity data, as explicitly recited in Claims 1, 2, and 26." Dkt. No. 101 at 13. In other words, although the preceding device connectivity data must be considered, it is not necessarily determinative.

The Court therefore hereby construes **"to enable bypass of said media gateway in said media path if an ensuing device in said outbound signaling path determines that such bypass should be conducted"** and **"to enable bypass of said media gateway and at least one other preceding device in said media path if an ensuing device in said outbound signaling path determines that such bypass should be conducted"** to mean **"based at least in part on the preceding device connectivity data, an ensuing device determines whether said media gateway should be bypassed."**

C. "not enabling bypass of said media gateway in said media path based on said preceding device connectivity data" (Claims 29, 31)

Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	Indefinite

Dkt. No. 89 at 14; Dkt. No. 101 at 14.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject indefiniteness argument."

(1) The Parties' Positions

Metaswitch argues: "First, claim 28 only recites 'determination that said preceding media gateway *should* be bypassed,' not that the gateway is actually bypassed. Claim 29 then adds the

step of not enabling bypass despite the determination that that gateway should be bypassed. Because claim 28 does not recite the positive step of bypassing the media gateway, there is no inconsistency between these claims." Dkt. No. 89 at 15.

Genband responds that "Claim 29 . . . requires the performance of two internally inconsistent steps—enabling and not enabling bypass . . . ." based on the same "said preceding device connectivity data." Dkt. No. 101 at 14–15; *see id.* at 15 (same as to Claim 31).

Metaswitch replies that the specification "support[s] not enabling bypass of a media gateway even if a determination is made that bypass should be conducted." Dkt. No. 109 at 6. "In addition," Metaswitch argues, "there is no reason why the 'preceding device connectivity data' cannot indicate enabling bypass for one packet and disabling it for the next (or for the same packet's next hop). In other words, Genband ignores the possibility that dependent claims 29 and 31 might be carried out after their respective independent claims." *Id.*

(2) Analysis

Claims 28 and 29 of the '640 Patent are representative and recite (emphasis added):

> 28. A method of enabling media bypass for a bypass-determining media gateway in a telecommunications network which includes a plurality of media gateways via which a signaling path for transfer of signaling information for setup of a communication session between endpoint devices can be established and via which a media path for transfer of media data between said endpoint devices during said communication session can be established, said method comprising:
>
> receiving, at said bypass-determining media gateway, an inbound communication session setup request message requesting setup of a communication session between an originating endpoint device and a terminating endpoint device in said telecommunications network, said inbound communication session setup request message being transmitted along an inbound signaling path to said bypass-determining media gateway;
>
> transmitting, from said bypass-determining media gateway, an outbound communication session setup request message in response to receiving said inbound communication session setup request message, said outbound communication session setup request message being transmitted along an outbound signaling path from said bypass-determining media gateway;

> receiving preceding device connectivity data in said inbound communication session setup request message, said preceding device connectivity data indicating at least one media connectivity setting for at least one preceding device which is located before said bypass-determining media gateway in said inbound signaling path, the at least one media connectivity setting identifying one or more other devices to which the preceding device is configured to be connectable in said media path, to enable bypass of a preceding media gateway in said media path; and
>
> *determining that said preceding media gateway should be bypassed* based on said preceding device connectivity data, and configuring said outbound communication session setup request message in accordance with said determination.
>
> 29. The method according to claim 28 further comprising *not enabling bypass of said media gateway* in said media path based on said preceding device connectivity data.

In some circumstances, contradictory claim language can render claims internally inconsistent and therefore indefinite. *See Competitive Techs., Inc. v. Fujitsu Ltd.*, 185 F. App'x 958, 965–966 (Fed. Cir. 2006).

Here, however, the specification and the claims demonstrate that bypassing a media gateway can be based not only on "preceding device connectivity data" but also on settings such as a "bypass mode setting." *See* '640 Patent at 14:36–44 & 25:21–25 ("bypass mode settings can act to override media bypass functionality of the invention"); *see also id.* at Cls. 8 & 9. For example, a "bypass mode setting" can be used to prevent a bypass that would otherwise occur, "for example . . . if a media gateway is required to perform lawful intercept of media data." *Id.* at 25:17–18.

This disclosure highlights that a bypass determination can be overridden, which is a concept that appears to be contemplated by dependent Claims 29 and 31. The Court therefore hereby expressly rejects Genband's indefiniteness argument. No further construction is necessary.

The Court accordingly hereby construes **"not enabling bypass of said media gateway in said media path based on said preceding device connectivity data"** to have its **plain meaning**.

VII. U.S. PATENTS NO. 6,807,273 AND 7,657,018 (Metaswitch)

The '273 Patent, titled "Method and Apparatus for Bypassing the Common Control and Switch Matrix of a Digital Switching System for Telecommunications Networks," issued on October 19, 2004, and bears a filing date of November 30, 2001. The Abstract of the '273 Patent states:

> A method for bypassing the common control and switch matrix of a class 5 digital switch, comprising providing a means to convert the signals and protocols used with the line/trunk frames associated with the class 5 digital switch to those used by the remote end of a DLC; providing network interfaces for one or more digital transmission facilities that make up the remote end of a DLC; and providing a means to couple the line/trunk frames with the switching system interface. A switching system interface comprising one or more network interfaces for terminating digital transmission facilities; one or more interfaces for coupling to line/trunk frames of a digital switch; a time-slot assignment means for connecting time slots of the digital transmission facilities to those of the line/trunk frames; and a call processing means for coordinating call setup and teardown between the DLC local terminal and the line/trunk frames, and for managing the time-slot assignment means to complete calls.

The '018 Patent, titled "Method and System for Combining a Conversion Between Time-Division Multiplexed Digital Signals and Packetized Digital Signals with a Switching System Interface," issued on February 2, 2010, and bears a filing date of November 29, 2005. The '018 Patent is a continuation-in-part of United States Patent No. 7,319,747, which in turn is a continuation-in-part of the '273 Patent.

A. "internal signals" ('273 Patent, Claims 1, 2, 6, 8, 13, 16, 18, 24, 26; '018 Patent, Claims 1, 7, 10, 13)

Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"proprietary signals within a class five digital switching system"[9]

Dkt. No. 89 at 16; Dkt. No. 101 at 15.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject 'proprietary.'"

(1) The Parties' Positions

Metaswitch argues that the use of "proprietary" signals is disclosed as an optional feature of one disclosed embodiment, and Metaswitch submits that "Genband's construction would exclude, for example, signals that are generated internal to a class 5 switch but are sent away from or also exist outside of the switch." Dkt. No. 89 at 16–17.

Genband responds that "[t]he claim term 'internal signals' was introduced by amendment and is nowhere in the '273 Patent as originally filed. The '273 Patent, which the '018 Patent incorporates by reference, instead refers to 'proprietary signals.'" Dkt. No. 101 at 15 (citation omitted). Genband also argues that "during prosecution the applicant emphasized the signals' proprietary nature when distinguishing the claimed invention over prior art used to reject the claims . . . ." *Id.* at 16. Finally, Genband urges that "the 'signals' must be 'internal' to something, and the claim language and intrinsic record make clear that the signals are within a class five digital switching system." *Id.*

[9] "GENBAND has modified its proposal from 'proprietary signals within a Class 5 switch' to 'proprietary signals within a class five digital switching system.'" Dkt. No. 101 at 15 n.5.

Metaswitch replies that the patentee amended claim language so as to include the word "internal," not "proprietary." Dkt. No. 109 at 7. Metaswitch also argues that Genband fails to justify limiting the claims to a particular embodiment or excluding signals that are generated within a switch but that are accessible from outside the switch. *Id.*

(2) Analysis

Genband notes that the '273 Patent, which the '018 Patent incorporates by reference, refers to "proprietary signals" and refers to problems that arise because "hardware and software of switching systems are proprietary to each particular manufacturer." '273 Patent at 2:25–46. Also, a stated objective of the invention is "accessing the proprietary signals of a digital switching system that communicate between the line/trunk frames" and "providing a switching system interface comprising interfaces compatible with the proprietary signals," for example, to "bypass[] the common control and switch matrix of a class 5 digital switch." *Id.* at 4:25–29 & 4:51–60; *see also id.* at 6:22–27, 6:55–67 & 7:9–32 ("the various groups of equipment frames from the prior art class 5 switching system have been left intact and not disturbed").

Nonetheless, the claims recite "internal signals," not "proprietary" signals. Indeed, as Metaswitch notes, the December 16, 2003 Preliminary Amendment added "internal" into the claim language rather than "proprietary." *See* Dkt. No. 101, Ex. 16 at 3; *see also* '018 Patent at Claim 5 (reciting "proprietary representation").

As for the prosecution history cited by Genband, during prosecution of the '273 Patent the patentee stated:

> The present invention solves the problem that is created by the fact that the diverse functions of a legacy digital switch . . . were designed to work together through *proprietary* interconnections, and to not be separable or compatible with other equipment.

> . . . The Applicant claims creating industry-standard modules out of legacy line frames that were designed to work only through *proprietary* connections, by using a specialized switch interface to convert the *proprietary* connections into a digital loop carrier or other industry-standard transport protocols.

Dkt. No. 101, Ex. 17, Apr. 21, 2004 Amendment Under 37 C.F.R. § 1.111 at 14–15 (emphasis added). Although the patentee thus explained purposes and objectives of the claimed inventions, this prosecution history contains no definitive statements that would warrant a finding of disclaimer or that would otherwise justify interpreting "internal signals" as meaning "proprietary" signals. *See Omega Eng'g*, 334 F.3d at 1324. Indeed, Genband has not demonstrated that the patentee clearly addressed the term "internal signals" at all.

The Court therefore hereby expressly rejects Genband's proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court accordingly hereby construes **"internal signals"** to have its **plain meaning**.

B. "a switching system interface" ('273 Patent, Claims 1, 8, 18, 27; '018 Patent, Claims 1, 7, 10)

This term was originally presented as a disputed term for construction, but "GENBAND is no longer pursuing construction of the phrase 'switching system interface' from Claims 1, 8, 18, and 27 of the '273 Patent and Claims 1, 7, and 10 of the '018 Patent." Dkt. No. 101 at 15 n.4. The Court therefore does not construe this term.

C. "digital transmission facility" ('273 Patent, Claims 1, 8, 18, 19, 27; '018 Patent, Claims 1, 7, 10)

Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"a DS1 or DS3 facility having a time division multiplexed framing pattern"[10]

Dkt. No. 89 at 18; Dkt. No. 101 at 17.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject DS1, DS3."

(1) The Parties' Positions

Metaswitch submits that, for example, "digital transmission facility 302 [in Figures 3 and 4 of the '273 Patent] is a facility that simply provides a mechanism for digital transmission." Dkt. No. 89 at 19. Metaswitch argues that Genband's proposal improperly limits the disputed term to a particular industry standard. *Id.*

Genband responds that "'[d]igital transmission facility' is a term unique to digital loop carrier (DLC) telecommunications implementations and GR-303." Dkt. No. 101 at 17. Genband also submits that "Metaswitch provides no evidence of any then-existing DLC standard that uses the term 'digital transmission facility' to mean anything different than its use in GR-303." Dkt. No. 101 at 20.

Metaswitch replies that "[e]ach of Genband's citations to the intrinsic evidence regarding DS1 and DS3 refers to a specific embodiment and should not be read to limit the claims." Dkt. No. 109 at 7. Metaswitch also argues that "Genband's discussion of GR-303, at most,

[10] Genband previously proposed: "An interface that terminates a DS1 or DS3 facility and performs frame alignment, multiplexing, demultiplexing, signal insertion, and signal extraction." Dkt. No. 71, Ex. A at 54. "GENBAND has revised its construction of 'digital transmission facility' to reflect that the term covers a link, rather than an interface." Dkt. No. 101 at 17 n.7.

demonstrates that GR-303 uses the term 'digital transmission facility,' but it does not show that this term is uniquely tied to GR-303." *Id.* Further, Metaswitch notes, "GR-303 does not define 'digital transmission facility,' but rather, 'digital transmission facility *interface*.'" *Id.* at 8.

(2) Analysis

The parties agreed at the July 15, 2015 hearing that the constituent term "facility" does not refer to a physical building. Instead, the parties substantially agreed, a "digital transmission facility" is a type of digital communication link. The parties disagreed on whether the disputed term necessarily refers to a particular type of digital communication link.

The '273 Patent incorporates by reference the "GR-303" standard. *See* '273 Patent at 4:1–8 ("In particular, there is the architecture and associated protocol documented by Telcordia Technologies, Inc. (formerly Bellcore) in their document GR-303–CORE ('GR303'), which is hereby incorporated by reference."). The GR-303 standard defines "digital transmission facility interface" as follows, in relevant part:

> . . . Digital Transmission Facility (DTF) Interface
>
> > The DTF interface is defined to be part of the LDS [(local digital switch)] and the RDT [(remote digital terminal)]. A DTF interface terminates one DS1 facility and provides generic digital terminal functions. These functions include frame alignment, multiplexing and de-multiplexing, and signaling insertion and extraction.

Dkt. No. 101, Ex. 24 at § 2.1.2. Genband also notes that the '273 Patent describes digital transmission facilities as "DS1" or "DS3" facilities. *See* '273 Patent at 9:9–10 ("digital transmission facilities 302 of FIG. 3 comprise redundant DS3 facilities") & 9:23–25 ("digital transmission facilities 305 of FIG. 3 comprise redundant DS1 facilities").[11]

[11] Genband submits that "DS" refers to "digital signal" and the numbers 1 and 3 refer to levels in the digital signal hierarchy. *See* Dkt. No. 101, Ex. 18, *Webster's New World Telecom Dictionary*

On balance, the GR-303 standard and DS1 and DS3 are disclosed as specific aspects of particular embodiments and should not be imported into the construction of the term "digital transmission facility." *See Comark*, 156 F.3d at 1187. Also of note, as Metaswitch has pointed out, the above-quoted GR-303 definition cited by Genband defines "digital transmission facility *interface*," not "digital transmission facility." Further, dependent Claim 3 of the '273 Patent specifically recites "the industry standard GR-303–CORE." *See Phillips*, 415 F.3d at 1315 ("[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim."); *see also* '273 Patent at 4:1–6 (noting that "[*a*]*t least two* industry standards have been developed that govern digital loop carrier architectures and protocols," including "the architecture and associated protocol documented by . . . GR-303–CORE") (emphasis added).

Finally, to whatever extent Genband maintains that "the claims place the digital transmission facility on the network-facing side of the switching system interface, not the subscriber-facing side" (Dkt. No. 101 at 20–21), no such requirement is apparent from the claim language, and Genband has not adequately justified introducing such a requirement.

The Court therefore hereby expressly rejects Genband's proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court therefore hereby construes **"digital transmission facility"** to have its **plain meaning**.

136, 146 (2008) (defining "digital signal hierarchy," "DS-1," and "DS-3"). In North America, DS1 and DS3 are commonly referred to as "T1" and "T3," respectively. *See id.*

D. "switching means" ('018 Patent, Claims 1, 7)

Metaswitch Proposed Construction	**Genband Proposed Construction**
Function: "routing data between said network interfaces and said line/trunk interface" Structure: "PCM interface and/or line/trunk manager module and equivalents thereof"	Function: "routing data between the network interfaces and the line/trunk interface" Structure: Indefinite

Dkt. No. 89 at 20; Dkt. No. 101 at 22.

The parties agree that this is a means-plus-function term governed by 35 U.S.C. § 112, ¶ 6. The parties also agree upon the claimed function.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Indefinite for lack of corresponding structure in the '018 Patent."

(1) The Parties' Positions

Metaswitch submits that Figure 2 of the '018 Patent illustrates a PCM interface that is an example of the "switching means." Dkt. No. 89 at 21.

Genband responds: "According to Metaswitch, the PCM interface includes line/trunk frame interface 201, DS1 interface 202, and time slot interchange function 203 of the '018 Patent. This cannot be correct because the claims specifically recite the proposed interfaces 201 and 202 as distinct interfaces that connect to the switching means." Dkt. No. 101 at 22 (citation omitted). Genband also urges that "the Metaswitch proposed components are merely black boxes" that refer to functions rather than structure, and Genband submits that "the '018 Patent lacks any algorithm for performing the function of routing data between the network and line/trunk interfaces." *Id.* at 23.

Metaswitch replies that PCM interfaces and line/trunk manager modules are well-known structures. Dkt. No. 109 at 8.

(2) Analysis

Claim 1 of the ’018 Patent, for example, and recites (emphasis added):

> 1. A switching system converter providing conversion between time-division multiplexed digital signals and packetized digital signals used to bypass a common control and switch matrix of a class 5 digital switch, the switching system converter comprising:
>
> a switching system interface having means for bypassing a common control and switch matrix of a class 5 digital switch, the switching system interface having:
>
> at least one network interface for terminating a digital transmission facility that is part of a network architecture;
>
> at least one line/trunk interface, compatible with internal signals used to operate the line/trunk interface of the class 5 digital switching system; and
>
> a *switching means*, connected to the network interface and to the line/trunk interface, for routing data between the network interfaces and the line/trunk interface; and
>
> means for converting data between time-division multiplexed digital signals of a legacy line frame of a legacy line and packetized digital signals utilizing pulse code modulation (PCM) data transport.

Title 35 U.S.C. § 112, ¶ 6 provides: “An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” “[S]tructure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1210 (Fed. Cir. 2003) (quoting *B. Braun Med. Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997)).

Metaswitch proposes a “line/trunk manager module” as corresponding structure. Such structure appears in the incorporated ’273 Patent but not in the ’018 Patent. *See* ’273 Patent

at 10:5–14 & Fig. 7. Likewise, the phrase "PCM interface" appears in the '273 Patent but not in the '018 Patent. *See id.* at 9:1. Because this structure does not appear within the '018 Patent, the Court rejects Metaswitch's proposal of a "PCM interface" or a "line/trunk manager." *See Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1301 (Fed. Cir. 2005) ("material incorporated by reference cannot provide the corresponding structure necessary to satisfy the definiteness requirement for a means-plus-function clause").

At the July 15, 2015 hearing, Metaswitch emphasized disclosure of "PCM data paths":

> FIG. 2 illustrates an exemplary embodiment of the internal *PCM data paths* of the switching system interface of FIG. 1. One or more line/trunk frame interfaces 201 received PCM timeslots originating from the legacy line/trunk frames. These PCM timeslots are transmitted over preset timeslots on PCM busses 204. In a similar manner, PCM timeslots originating from transmission facilities connected to DLCs or to the host switch are received by DS1 interfaces 202 and transmitted over present timeslots on PCM bus 204.

'018 Patent at 5:27–35. The "PCM data paths," however, are not "clearly linked or associated with the claimed function" of routing data between the network interfaces and the line/trunk interface. *Med. Instrumentation*, 344 F.3d at 1219.

The Court therefore hereby finds that for the **"switching means,"** the claimed function is "routing data between the network interfaces and the line/trunk interface," and the specification fails to disclose sufficient corresponding structure.

E. Means-Plus-Function Terms in Claim 27 of the '273 Patent

"means for connecting the network interface to at least one line/trunk interface" ('273 Patent, Claim 27)	
Metaswitch Proposed Construction	**Genband Proposed Construction**
Function: "connecting the network interface to at least one line/trunk interface of a digital switching system" Structure: "cables, digital transmission facilities, and equivalents thereof"	Function: "connecting the network interface to at least one line/trunk interface and providing compatibility with a signaling protocol of the line/trunk interface" Structure: Indefinite
"means for connecting the network interface to a digital transmission facility" ('273 Patent, Claim 27)	
Metaswitch Proposed Construction	**Genband Proposed Construction**
Function: "connecting the network interface to a digital transmission facility" Structure: "cables, digital transmission facilities, and equivalents thereof"	Function: "connecting the network interface to a digital transmission facility and providing compatibility with a signaling protocol of the digital transmission facility" Structure: Indefinite

Dkt. No. 89 at 21–22; Dkt. No. 101 at 23–24; Dkt. No. 113, App'x A at 57–58. The parties agree that these are means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary constructions: for the "means for connecting the network interface to at least one line/trunk interface," the claimed function is "connecting the network interface to at least one line/trunk interface of a digital switching system" and the corresponding structure is "cables, digital transmission facilities, and equivalents thereof"; and for the "means for

connecting the network interface to a digital transmission facility," the claimed function is "connecting the network interface to a digital transmission facility" and the corresponding structure is "cables, digital transmission facilities, and equivalents thereof."

At the July 15, 2015 hearing, the parties rested on their briefing as to the claimed functions and presented oral argument only as to the corresponding structure.

(1) The Parties' Positions

Metaswitch argues that the "providing compatibility" requirements proposed by Genband are improper because the claim language at issue "describes the capability of the means for connecting, and not the function performed." Dkt. No. 89 at 22. Metaswitch also points out "cables 104, 503, 508 and digital transmission facilities 302 in Figs. 2–7." *Id.* at 23.

Genband responds that its proposed functions are based on the claim language and are consistent with the prosecution history. Dkt. No. 101 at 24. Genband also argues that "Metaswitch's proposed structure cannot be correct because it only includes cables/links, which are insufficient to provide the required compatibility." *Id.*

Metaswitch replies that "the claims do not require that the 'mean[s] for connecting' provide for compatibility, they only require that the 'means for connecting' be compatible with a signaling protocol." Dkt. No. 109 at 9.

(2) Analysis

Genband has not adequately justified its proposal of introducing, as part of the claimed function, that the "means for connecting" must "provid[e] compatibility." The prosecution history cited by Genband contains no definitive statements in this regard. Dkt. No. 101, Ex. 17, Apr. 21, 2004 Amendment Under 37 C.F.R. § 1.111 at 14–15; *see also Omega Eng'g*, 334 F.3d at 1324. Also, the surrounding claim language cited by Genband relates to properties of each

"means" as a whole rather than to the claimed functions. *See* '273 Patent at Claim 27 ("the means for connecting the network interface to the line/trunk interface being compatible with a signaling protocol for communicating with the line/trunk interface"); *id.* ("the means for connecting the network interface being compatible with a signaling protocol of the digital transmission facility").

Genband also argues that a person of ordinary skill in the art "would need the proprietary specification used on the line/trunk interface and a specific algorithm to translate it to the network interface's industry standard. The patent provides no such information." Dkt. No. 101 at 25. This argument perhaps may bear upon enablement but is not relevant to whether the specification discloses a structure corresponding to the "means for connecting."

At the July 15, 2015 hearing, Genband urged that the only relevant structures are DS3 modules 601 and 602 illustrated in Figure 6. *See* '273 Patent at 6:10–22. Genband failed to adequately establish, however, a "clear[] link[age]" as to these particular DS3 modules. *Med. Instrumentation*, 344 F.3d at 1219. Instead, the relatively simple function of connecting can be carried out by cables and digital transmission facilities. *See*, *generally*, '273 Patent.

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

Term	Construction
"means for connecting the network interface to at least one line/trunk interface"	**Function:** **"connecting the network interface to at least one line/trunk interface of a digital switching system"** **Corresponding Structure:** **"cables, digital transmission facilities, and equivalents thereof"**

"means for connecting the network interface to a digital transmission facility"	**Function:** **"connecting the network interface to a digital transmission facility"** **Corresponding Structure:** **"cables, digital transmission facilities, and equivalents thereof"**

F. Means-Plus-Function Terms in Claims 1 and 7 of the '018 Patent

"means for bypassing" ('018 Patent, Claims 1 and 7)	
Metaswitch Proposed Construction	**Genband Proposed Construction**
Function: "bypassing a common control and switch matrix of a class 5 digital switch" Structure: "line/trunk interfaces, DS1 interfaces, and equivalents thereof"	Function: "bypassing a common control and switch matrix of a class 5 digital switch" Structure: Indefinite
"means for converting data between time-division multiplexed digital signals [of a legacy line frame of a legacy line] and packetized digital signals" ('018 Patent, Claims 1 and 7)	
Metaswitch Proposed Construction	**Genband Proposed Construction**
Function: "converting data between time-division multiplexed digital signals [of a legacy line frame of a legacy line] and packetized digital signals" Structure: "format converter and equivalents thereof"	Function: "converting data between time-division multiplexed digital signals of a legacy line frame of a legacy line and packetized digital signals" Structure: Indefinite

Dkt. No. 89 at 23 (square brackets Metaswitch's);[12] Dkt. No. 101 at 25; Dkt. No. 113, App'x A at 60–61. The parties agree that these are means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6. The parties also agree upon the claimed function.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary constructions: for the "means for bypassing," "Indefinite"; and for the "means for converting data between time-division multiplexed digital signals [of a legacy line frame of a legacy line] and packetized digital signals," the claimed function is "converting data between time-division multiplexed digital signals [of a legacy line frame of a legacy line] and packetized digital signals" and the corresponding structure is "format converter 312; and equivalents thereof."

(1) The Parties' Positions

Metaswitch argues that it has identified structures clearly linked to the claimed functions. Dkt. No. 89 at 23–24.

Genband responds that "the '018 Patent shows only black boxes and provides no algorithm for the boxes." Dkt. No. 101 at 26.

Metaswitch replies that "line/trunk interfaces, DS1 interfaces, and format converters" are well-known structures. Dkt. No. 109 at 9.

(2) Analysis

By arguing that algorithms are necessary, Genband appears to argue that the corresponding structure for these disputed terms must be a general-purpose computer with special programming. "[A] means-plus-function claim element for which the only disclosed structure is a general purpose computer is invalid if the specification fails to disclose an

[12] The phrase "of a legacy line frame of a legacy line" appears in Claim 1 but not in Claim 7.

algorithm for performing the claimed function." *Net MoneyIN Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008); *see WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999) ("In a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.").

Genband has failed to adequately demonstrate, however, that the corresponding structure is a general-purpose computer.

As to the proper corresponding structure, Metaswitch has adequately identified the "format converter 312" as structure corresponding to the "means for converting." *See* '018 Patent at 5:57–6:6 & 6:65–7:34; *see also id.* at Figs. 3–5.

As to the "means for bypassing," Claim 1 of the '018 Patent is representative and recites (emphasis added):

> 1. A switching system converter providing conversion between time-division multiplexed digital signals and packetized digital signals used to bypass a common control and switch matrix of a class 5 digital switch, the switching system converter comprising:
>
> a switching system interface having *means for bypassing a common control and switch matrix of a class 5 digital switch*, the switching system interface having:
>
> at least one network interface for terminating a digital transmission facility that is part of a network architecture;
>
> at least one line/trunk interface, compatible with internal signals used to operate the line/trunk interface of the class 5 digital switching system; and
>
> a switching means, connected to the network interface and to the line/trunk interface, for routing data between the network interfaces and the line/trunk interface; and
>
> means for converting data between time-division multiplexed digital signals of a legacy line frame of a legacy line and packetized digital signals utilizing pulse code modulation (PCM) data transport.

Genband submits that a "link/trunk interface" is expressly recited elsewhere in the claims, and "DS1 interfaces" correspond to the expressly recited "network interface for terminating a digital transmission facility." Dkt. No. 101 at 26; *see* '018 Patent at 5:16–18 ("One or more DS1 interfaces 102 connect to one or more transmission facilities 101 that operate remote DLC equipment.") Genband concludes that those structures cannot be corresponding structure for the separately recited "means for bypassing." Dkt. No. 101 at 26.

On balance, Metaswitch has failed to identify any corresponding structure that is "clearly linked or associated with the claimed function." *Med. Instrumentation*, 344 F.3d at 1219; *see Default Proof*, 412 F.3d at 1302 ("[W]hile it is true that the patentee need not disclose details of structures well known in the art, the specification must nonetheless disclose some structure.") (citation omitted).

At the July 15, 2015 hearing, Metaswitch emphasized disclosure in the specification that begins by referring to "a switching system interface utilized to bypass a common control and switch matrix of a digital switch." '018 Patent at 5:7–11. Claims 1 and 7, however, both recite (emphasis added): "a switching system interface *having* means for bypassing a common control and switch matrix of a class 5 digital switch." Thus, to whatever extent the cited disclosure in the specification can be deemed linked to the claimed function, the specification fails to clearly link the claimed function to any particular structures within the disclosed switching system interface. *See id.* at 5:11–26.

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

Term	Construction
"means for bypassing"	**Function:** **"bypassing a common control and switch matrix of a class 5 digital switch"** **Corresponding Structure:** **the specification fails to disclose sufficient corresponding structure**
"means for converting data between time-division multiplexed digital signals [of a legacy line frame of a legacy line] and packetized digital signals"	**Function:** **"converting data between time-division multiplexed digital signals [of a legacy line frame of a legacy line] and packetized digital signals"** **Corresponding Structure:** **"format converter 312, and equivalents thereof"**

VIII. U.S. PATENTS NO. 6,816,482 AND 7,881,282 (Metaswitch)

The '482 Patent, titled "System and Method for Interfacing a Broadband Network and a Circuit Switched Network," issued on November 9, 2004, and bears a priority date of February 19, 2002. The Abstract of the '482 Patent states:

> A system and method is provided for interfacing a broadband network and a circuit switched network, such as a PSTN, that is accessed via a switch that resides in the circuit switched network. The system includes a device, such as a gateway, that is located at a point of convergence between the two networks and connects to the circuit switched network through the switch. The gateway incorporates call management capabilities and is able to offload call management functions from the circuit switched network. The method manages call traffic by identifying a final destination for a call and determining a path for the call to the final destination. If the path does not need to use the circuit switched network, the gateway routes the call without accessing the switch.

The '282 Patent is a continuation of the '482 Patent.

A. "a remote digital terminal (RDT) interface" and "an integrated digital terminal (IDT) interface" ('482 Patent, Claims 1, 6; '282 Patent, Claim 1)

"a remote digital terminal (RDT) interface"	
Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"an interface between customer access lines and an integrated digital terminal (IDT) that provides line signaling events to the IDT and is controlled by the IDT"
"an integrated digital terminal (IDT) interface"	
Metaswitch Proposed Construction	**Genband Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"an interface that controls the remote digital terminal (RDT) and performs call control and routing services in response to line signaling events from the RDT"

Dkt. No. 89 at 24 & 27; Dkt. No. 101 at 26; Dkt. No. 113, App'x A at 68–69.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary constructions: "a remote digital terminal (RDT) interface" means "a customer line interface that is physically remote from, and controlled by, an integrated digital terminal (IDT)"; and "an integrated digital terminal (IDT) interface" means "an interface that is physically remote from a remote digital terminal (RDT), that controls the RDT, and that interfaces the RDT with a network."

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to these disputed terms.

(1) The Parties' Positions

Metaswitch argues that "[t]he phrase 'a remote digital terminal (RDT) interface' has a plain and ordinary meaning—namely, an interface for a digital terminal that is remote—and does not require construction." Dkt. No. 89 at 25. Metaswitch also argues that the limitations proposed by Genband contradict the plain language of the claims as well as the disclosed embodiments. *Id.*

Metaswitch argues that "[t]he phrase 'an integrated digital terminal (IDT) interface' has a plain and ordinary meaning—an interface for a digital terminal that is integrated—and does not require construction." *Id.* at 27. Metaswitch further urges that "[t]he specification lacks any disclosure of the integrated digital terminal controlling the remote digital terminal or that it performs call control and routing services in response to line signaling events." *Id.*

Genband responds: "The terms 'remote digital terminal (RDT) interface' and 'integrated digital terminal (IDT) interface' do not have a plain meaning. Rather, their meanings are informed by the claims and specifications of the '282 and '482 Patents and by the GR-303 standard." Dkt. No. 101 at 26. Genband also argues that "[a]lthough Metaswitch attempts to argue that GENBAND's construction limits the RDT/IDT to a particular embodiment in the specification, Metaswitch does not point to any other embodiment that differs from GENBAND's construction." *Id.* at 29. Further, Genband urges, "[t]he terms RDT and IDT do not have any well-established meaning in the art other than the meaning set forth in GR-303." *Id.* Finally, Genband argues that "the alleged ordinary meanings that Metaswitch proposes for RDT (a digital terminal that is remote) and for IDT (a digital terminal that is integrated) are vague and not helpful." *Id.* at 30.

Metaswitch replies that "Genband fails to point to any evidence in the intrinsic evidence that limits the claims to a particular embodiment." Dkt. No. 109 at 10. Further, Metaswitch

argues, "[t]he intrinsic evidence . . . is clear that GR-303 is identified only for purpose of illustration." *Id.* (internal quotation marks omitted). Finally, "[e]ven assuming that the patents have expressly defined connections 38 and 40 as requiring GR-303 compatibility," Metaswitch argues, "there is no similar requirement for any other connection in Figure 2. Connection 46, for example, is not described as compatible with GR-303, yet connection 46 connects 'the network switch 34 [that] includes an IDT' and 'a Remote Digital Terminal (RTD) [*sic*, RDT], such as is implemented in the IAD [(integrated access device)] 42.'" *Id.* (quoting '482 Patent at 4:18–20).

(2) Analysis

Claim 1 of the '482 Patent, for example, recites (emphasis added):

> 1. A telecommunications system for managing a call, the system comprising:
>
> a broadband network associated with a first device having a *remote digital terminal (RDT)* interface;
>
> a circuit switched network associated with a second device having an *integrated digital terminal (IDT)* interface;
>
> an interface device positioned between the first and second devices and operable to communicate with both the first and second devices to route the call, wherein the interface device acts as an *IDT* when communicating with the first device and acts as an *RDT* when communicating with the second device, and wherein the interface device accesses the second device only if the call is to be routed through the circuit switched network; and
>
> software executable on the interface device, wherein the software includes instructions for:
>
> intercepting a call request sent by the first device to the second device;
>
> determining a path by which to route the call;
>
> accessing the second device only if the path includes the circuit switched network; and
>
> routing the call via the path, wherein resources associated with the second device and circuit switched network are not used unless the path includes the circuit switched network.

The specification discloses:

> For example, the network switch 34 includes an IDT [(Integrated Digital Terminal)] that is designed to interact with a Remote Digital Terminal (RTD) [*sic*, RDT), such as is implemented in the IAD [(integrated access device)] 42.

'482 Patent at 4:18–20; *see id.* at 3:18–19 ("Integrated Digital Terminals (IDTs)") & 3:26 ("integrated access device (IAD)"). The specification also refers to the "GR-303" standard. *See id.* at 3:25, 5:29, 5:48 & 6:55.

The specification further discloses a gateway 30 that "is operable to handle a call . . . without accessing the network switch 34" and that, from the perspective of the network switch 34, can "appear[] as" an RDT:

> Referring now to FIG. 4, in still another embodiment, a call flow 80 illustrates the interaction between the gateway 30 and telephones 52, 56 in greater detail. During the call flow 80, the gateway 30 of FIGS. 2 and 3 is operable to handle a call (that would ordinarily require that the network switch 34 be accessed) without accessing the network switch 34. The call flow begins in step 82 with a setup process. In conventional systems, the setup process would be passed by the gateway 30 to the network switch 34. However, because of the processor 62 and associated command and control software, the gateway 30 receives and processes the incoming setup message without accessing the network switch 34, thereby offloading this task from the PSTN 28. In step 84, the gateway 30 returns a dial tone to the telephone 52, which then sends a destination number to the gateway 30 in step 86. Again, this occurs without any interaction occurring between the gateway 30 and the network switch 34.
>
> In steps 88, 90, and 92, the gateway 30 performs call control, routing service, and callerID functions, respectively. It is understood that some functions, such as callerID, may or may not be performed for every call. The gateway 30 contacts the telephone 56 with setup information in step 94 and provides a ringback to the telephone 52 in step 96. When the gateway 30 detects an answer from the telephone 56 in step 98, it establishes a two way audio path in steps 102, 104 to establish a connection 104 between the telephones 52, 56. Without the intelligent call control/service processor 62 and associated control software in the gateway 30, many of the steps 82–104 would require accessing the network switch 34.
>
> * * *
>
> The gateway 30 originates a call over the GR-303 interface to the network switch 34 in step 20 and routes the call using the circuit switched network in step 22. In the present example, due to software associated with the call control/service processor 62, *the gateway 30 appears as a Digital Loop Carrier (DLC) RDT to the network switch 34*. As a result, the call origination appears as a line-signaling event to the network switch 34. In addition, the telephone 52 may be provisioned on the network switch 34 since *the network switch 34 views the*

> *telephone 52 as a line connected to a DLC RDT*. Accordingly, the network switch 34 is accessed by the gateway 30 to provide call services *as if the call was coming from a DLC RDT (as would ordinarily occur)*. This enables the gateway 30 to be used in conjunction with the network switch 34 without altering the network switch 34.

'482 Patent at 4:55–5:16 & 5:28–43 (emphasis added).

Further in this regard, above-quoted Claim 1 of the '482 Patent recites (emphasis added) that the "interface device *acts as* an IDT when communicating with the first device and *acts as* an RDT when communicating with the second device." Likewise, Claim 6 of the '482 Patent recites (emphasis added) "a first interface configured to *act as* an IDT when communicating with the broadband network device" and "a second interface configured to *act as* an RDT when communicating with the circuit switched network device." Claim 1 of the '282 Patent is similar.

These disclosures and claim language thus suggest that RDTs and IDTs are well-known prior art elements. This conclusion is reinforced where the specification introduces IDTs as follows: "Two network switches 34, 36 (e.g., Class 5 switches with Integrated Digital Terminals (IDTs)) are connected to the PSTN 28." '482 Patent at 3:18–20. Indeed, the Background sections of the '482 Patent and the '282 Patent refer to Class 5 switches as an example of components of a Public Switched Telephone Network. *See* '482 Patent at 1:44; *see also* '282 Patent at 1:49–50.

On balance, the specification does not define the disputed term according to the GR-303 standard or any other particular standard.[13] Even if all embodiments were read as involving components that are compliant with GR-303, "[i]t is . . . not enough that the only embodiments, or all of the embodiments, contain a particular limitation." *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012). Moreover, the below-discussed '252 Patent

[13] Genband has also submitted that during prosecution the examiner identified the RDT and IDT interfaces as reasons for allowing claims of the '482 Patent. That prosecution history, however, contains no guidance as to the meanings of these disputed terms. *See* Dkt. No. 101, Ex. 19, May 14, 2004 Notice of Allowability at 2.

(asserted by Genband) refers to remote terminals and integrated digital terminals and notes that GR-303 is only one example of an applicable standard. *See* '252 Patent at 4:2, 4:49 & 5:19–23. In particular, the '252 Patent refers also to the GR-08 standard. *Id.* at 5:20.

Nonetheless, the foregoing evidence demonstrates that RDT and IDT are well-understood terms, and those terms should accordingly be construed in light of the meanings that would be apparent to persons of ordinary skill in the art. The GR-303 standard submitted by Genband, as well as the opinions of Genband's expert, are relevant in this regard. *See Phillips*, 415 F.3d at 1318 ("[E]xtrinsic evidence in the form of expert testimony can be useful to a court for a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.").

The GR-303 standard, as submitted by Genband, describes an RDT as "an intelligent network element that interfaces between customer access lines and DS1 rate facilities." Dkt. No. 101, Ex. 24 at § 2.1.1; *see id.* at Fig. 2–1. GR-303 describes an IDT as follows: "An IDT is the logical resource of an LDS [(local digital switch)] that is associated with a single RDT. The IDT provides a common basis of operation, management, or administration for an RDT." *Id.* at § 2.1.3; *see* Dkt. No. 102, Ex. 14, Provisional Application at 5 (GENBAND10002747).[14] Genband's expert, Mr. Skran, also opines in support of Genband's proposed constructions. *See* Dkt. No. 101, Ex. 9, Apr. 13, 2015 Skran Decl. at ¶¶ 126–37.

On balance, the above-discussed intrinsic and extrinsic evidence demonstrates that the defining features of a remote digital terminal are that it interfaces with customer lines and is

[14] This provisional application, submitted by Metaswitch in its response to Genband's opening brief, is the provisional patent application to which Genband's '252 Patent claims priority.

physically remote from, and controlled remotely by, an integrated digital terminal. Likewise, the defining features of an integrated digital terminal are that it controls a physically remote RDT and interfaces the RDT with a network.[15]

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

Term	Construction
"a remote digital terminal (RDT) interface"	**"a customer line interface that is physically remote from, and controlled by, an integrated digital terminal (IDT)"**
"an integrated digital terminal (IDT) interface"	**"an interface that is physically remote from a remote digital terminal (RDT), that controls the RDT, and that interfaces the RDT with a network"**

B. "an interface device positioned between the first and second devices and operable to communicate with both the first and second devices to route the call" ('482 Patent, Claim 1), "the apparatus is positioned between a broadband network device having a remote digital terminal (RDT) interface and a circuit switched network device having an integrated digital terminal (IDT) interface" ('482 Patent, Claim 6), and "positioning the gateway device logically at a convergence point between a circuit switch network and a broadband network" ('282 Patent, Claim 2)

These terms were originally presented as disputed terms for construction, but "GENBAND is no longer pursuing construction of the phrase 'positioned between' from Claims 1 and 6 of the '482 Patent and Claim 1 of the '282 Patent." Dkt. No. 101 at 26 n.12. The Court therefore does not construe these terms.

[15] Also of note, the below-discussed '252 Patent and '3210 Patent are consistent with finding that a "remote" terminal is controlled remotely. *See* '252 Patent at 2:18–19 ("a switch proxy apparatus to control one or more remote terminals when connection to a host switching system is lost"); '3210 at 3:9–12 (similar); *see also* '3210 Patent at 1:47–50 ("The local switching system controls the remote terminal as if it were an extension of the switching system. For example, dial tone is sourced from the local switch and the dialed digits are collected by it."); '252 Patent at 1:28–29 (similar).

IX. U.S. PATENTS NO. 7,680,252 AND 7,953,210 (Genband)

The ’252 Patent, titled “Switch Proxy for Providing Emergency Stand Alone Service in Remote Access Systems,” issued on March 16, 2010, and bears a priority date of November 8, 2004. The Abstract of the ’252 Patent states:

> A switch proxy comprising a controller, a translations database and a switching fabric are connected to a trunk group between a remote terminal and its controlling local switching system. The switch proxy monitors control signals to and from the switching system on the trunk. In the event of loss of control signals from the host switching system, the switch proxy intercepts requests for service, etc. from a calling telephone connected to the remote terminal and performs a look up in the translation database. If the call can be completed without the controlling switching system the call is looped back to the remote terminal. The translation database is maintained by a switch proxy management system that receives change orders from the local exchange carrier. The switch proxy management system forwards relevant changes to the switch proxy’s translation database in the field.

The ’3210 Patent has the same title as the ’252 Patent and issued on May 31, 2011. The ’3210 Patent bears a filing date of June 26, 2006, and is a continuation-in-part of the ’252 Patent.

A. “switch proxy apparatus” and “switch proxy” (’252 Patent, Claims 1–5, 7; ’3210 Patent, Claims 1–5, 7–9, 13, 17)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	“an apparatus capable of acting as a replacement for a switching system, where the apparatus is outside of the remote terminal and independent of the local switching system”

Dkt. No. 87 at 2; Dkt. No. 102 at 2.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: “an apparatus capable of performing switching independent of the local switching system.”

(1) The Parties' Positions

Genband argues that "[t]he patent claims use the term 'switch proxy' in its ordinary sense to refer to an element capable of acting on behalf of a switch." Dkt. No. 87 at 2. Genband further argues that "[n]o claim requires that the switch proxy serve as a complete 'replacement' for a switching system, as Metaswitch proposes." *Id.* at 3.

Metaswitch responds that "replacement" appears in the prosecution history and is not necessarily a "complete" replacement. Dkt. No. 102 at 2–3. Metaswitch also argues that "[t]he intrinsic evidence defines the switch proxy as outside of the remote terminal." *Id.* at 3. For example, Metaswitch urges that, "[d]uring prosecution, the patentees disclaimed remote terminals with internal ESA capability." *Id.* at 6. Further, Metaswitch argues that the patentees disclaimed switch proxies that were dependent on the local switching system. *Id.* at 8. Metaswitch concludes that "[t]he repeated criticism of systems providing ESA functionality within a remote terminal, the disclosure of an external switch between the remote terminal and the switch, as well as the praise for the ability of the switch proxy to provide ESA capabilities without modification to the existing remote terminals, demonstrate without a doubt that the switch proxy is outside the remote terminal." *Id.* at 7.

Genband replies, first, that "to the extent there is functionality that the switch proxy must perform on behalf of a local switching system, the claims themselves explicitly recite the relevant functionality, and different claims recite different functionality." Dkt. No. 107 at 1. In this regard, Genband also submits that the specification never states, and the patentee has never argued, that a switch proxy must be able to "replace" a switching system. *Id.* Second, Genband replies that "[t]he intrinsic evidence . . . does not explicitly redefine or clearly disclaim the scope of 'switch proxy' to support Metaswitch's location requirement." *Id.* at 2. Third, Genband replies

that "[t]he claims themselves give direction on the operation of the switch proxy, both when it is in connection with and synchronizing with the local switch, and when connection is lost with the local switch. Metaswitch's proposal that a switch proxy is something that always is 'independent of the local switch' only invites jury confusion and should be rejected." *Id.* at 3.

(2) Analysis

Claim 1 of the '252 Patent recites (emphasis added):

> 1. A *switch proxy apparatus* for controlling a remote terminal when said remote terminal is isolated from its controlling local switching system wherein:
>
> the remote terminal is connected to the controlling local switching system by a trunk,
>
> the remote terminal supports a plurality of subscriber telephone lines and,
>
> the *switch proxy apparatus* comprises a controller, a translations database and a switching fabric connected to each other and to the trunk so that, when connection between the remote terminal and the local switching system is lost, the translations database maintains translations for the remote terminal and the switching fabric maintains a capacity to switch calls among the plurality of subscriber telephone lines.

Claim 1 of the '3210 Patent recites (emphasis added):

> 1. A *switch proxy* for controlling a remote terminal when said remote terminal is isolated from its controlling local switching system, wherein the remote terminal is connected to the controlling local switching system by a trunk and supports a plurality of subscriber telephone lines, said *switch proxy* comprising:
>
> a controller;
>
> a translations database maintaining translations for switching calls among the subscriber telephone lines supported by the remote terminal, said translation database further maintaining translations for switching 9–1–1 calls from subscriber telephone lines to 9–1–1 designates supported by the remote terminal; and
>
> a switching fabric controlled by the controller and said translations database to switch calls among the subscriber telephone lines supported by the remote terminal when connection between the remote terminal and the local switching system is lost.

Metaswitch proposes a construction for "switch proxy" that includes the following requirements: (1) "capable of acting as a replacement for a switching system"; (2) "outside of the remote terminal"; and (3) "independent of the local switching system."

First, surrounding claim language, as quoted above, explicitly sets forth the capability of the switch proxy such that Metaswitch's proposal of "acting as a replacement" is unnecessary and would tend to confuse rather than clarify the scope of the claims. The prosecution history cited by Metaswitch does not compel otherwise. *See* Dkt. No. 102, Ex. 17, Nov. 10, 2009 Response at 3 ("[T]he present invention is intended to act as a replacement for the switching system in order to preserve communications among access systems in the event of failure of the switching system or failure of interconnecting transport facilities."). Further, the specification refers to features of a switching system that are not necessary for a switch proxy, such as billing. *See* '252 Patent at 4:36–39 ("Switching system 102, as is well known in the art, provides many other functions such as billing and operator services, etc., which do not contribute to the understanding of this invention and are thus not described.").

Second, on one hand, the Summary of the Invention states that "no modification of existing infrastructure, either in the switching system or the remote terminal, is needed, except to introduce this switch proxy in the trunk group between the local switching system and the remote terminal." '252 Patent at 2:29–33; '3210 Patent at 3:21–25. On the other hand, the specification discloses that a "switch proxy . . . resid[es] *logically* between the remote terminal 124 and the trunk 128." '252 Patent at 4:2–9 (emphasis added); '3210 Patent at 4:62–5:1; *see* Dkt. No. 102, Ex. 14, Provisional Application at 1.[16] On balance, this disclosure of "logically," as opposed to necessarily physically, demonstrates that a switch proxy need not be physically separate or "outside" as Metaswitch has proposed. *See* Dkt. No. 107, Ex. A, *IEEE Standard Dictionary of Electrical and Electronics Terms* 599 (6th ed. 1996) ("logical": ". . . may be different from the real (physical) form"); *see also Phillips*, 415 F.3d at 1318 ("We have especially noted the help

[16] This is the provisional patent application to which the '252 Patent claims priority.

that technical dictionaries may provide to a court to better understand the underlying technology and the way in which one of skill in the art might use the claim terms.") (citations and internal quotation marks omitted).[17] Further, illustration of the switch proxy in the patent figures as being apart from the remote terminal is not determinative. *MBO Labs. Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007) ("patent coverage is not necessarily limited to inventions that look like the ones in the figures").

Third, Genband's objection to Metaswitch's proposal of "independent of the local switching system" can be addressed by modifying Metaswitch's proposal so as to clarify that a switch proxy *can* operate independently. That is, interaction between the switch proxy and the local switching system need not be precluded at all times. Rather, the switch proxy need be capable of operating independently only "when connection between the remote terminal and the local switching system is lost." *See, e.g.,* '252 Patent at Cl. 1. The prosecution history cited by Metaswitch contains no definitive statements or disclaimers to the contrary. *See* Dkt. No. 102, Ex. 17, Nov. 10, 2009 Response at 3; *id.*, Ex. 18, June 21, 2010 Response at 3; *see also Omega Eng'g*, 334 F.3d at 1324.

Metaswitch has also cited Information Disclosure Statements as support for Metaswitch's proposed limitations, but no relevant disclaimers or definitive statements are apparent in that prosecution history. *See* Dkt. No. 102, Exs. 15 & 16.

[17] Metaswitch also cites a Genband corporate document that refers to a "proxy (stand alone appliance)" (Dkt. No. 102, Ex. 24, Dec. 2011 IPR Summary at GENBAND00935191), but this extrinsic business document is of little, if any, relevance in these claim construction proceedings. *Cf. Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1346–47 (Fed. Cir. 2008) (noting that inventor testimony is "limited by the fact that an inventor understands the invention but may not understand the claims, which are typically drafted by the attorney prosecuting the patent application").

Finally, Metaswitch also relies upon the preambles to support Metaswitch's proposed limitations (*see* Dkt. No. 102 at 1 n.1), but even assuming for the sake of argument that the entireties of the preambles are limiting, the preambles would not warrant departing from the conclusions the Court has reached above.

The Court therefore hereby construes **"switch proxy"** to mean **"an apparatus capable of performing switching independent of the local switching system."**

B. "remote terminal(s)" ('252 Patent, Claims 1–5, 7–11, 13; '3210 Patent, Claims 1, 2, 4, 5, 14, 15, 24)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	"a terminal that is remotely located from a switching system that does not include emergency stand alone switching functionality"

Dkt. No. 87 at 5; Dkt. No. 102 at 8.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "terminal(s) located remotely from a switching system."

(1) The Parties' Positions

Genband argues that "[i]n light of the plain English meaning of the term 'remote terminal' and the context provided for that term in the claims where it appears, this term requires no construction," and "[t]o the extent the functionality of the 'remote terminal' is at issue, the claims themselves recite any required functionality." Dkt. No. 87 at 5. Genband urges that "[n]o claim . . . *prohibits* the remote terminal from including any particular functionality as Metaswitch's proposed construction advocates." *Id.*

Metaswitch responds that its proposal "properly places ESA functionality within the switch proxy, not the remote terminal." Dkt. No. 102 at 8.

Genband replies that "[t]he Court should reject Metaswitch's bid for a negative limitation on this claim term for the same reasons outlined above" as to the term "switch proxy apparatus." Dkt. No. 107 at 4.

(2) Analysis

On one hand, the specification notes that "[w]hile manufacturers of access systems are currently considering the incorporation of so-called 'emergency stand alone' service into their next generation of product, this does nothing to address the provision of this capability to the vast majority of access systems which are currently in use and are otherwise fit for service." '252 Patent at 1:58–63.

On the other hand, nothing in the claims or the specification affirmatively limits the functionality of a "remote terminal." Although Metaswitch submits the principle that "the claims cannot be of broader scope than the invention that is set forth in the specification," *Gemalto S.A. v. HTC Corp.*, 754 F.3d 1364, 1369 (Fed. Cir. 2014), arguments by Metaswitch that the specification fails to explain how to interface with an ESA-equipped remote terminal may perhaps pertain to enablement but do not raise a proper issue for these claim construction proceedings. *See Phillips*, 415 F.3d at 1327 ("[W]e have certainly not endorsed a regime in which validity analysis is a regular component of claim construction."). Finally, the Information Disclosure Statements cited by Metaswitch contain no relevant disclaimers or definitive statements. *See* Dkt. No. 102, Exs. 15 & 16; *see also Omega Eng'g*, 334 F.3d at 1324.

On balance, Metaswitch has failed to adequately justify any negative limitation on the functionality of a "remote terminal." As the parties appear to substantially agree, however, a "remote terminal" is remote from a switching system.

The Court therefore hereby construes **"remote terminal(s)"** to mean **"terminal(s) located remotely from a switching system."**

C. "local switching system" ('252 Patent, Claims 1–3, 8, 9, 13, 17; '3210 Patent, Claims 1, 2, 4, 14, 15, 24)

This term was originally presented as a disputed term for construction, but "in an effort to further reduce the disputed issues in this case, Metaswitch agrees to the construction provided by Genband, namely, 'a system separated from the remote terminal that connects calls.'" Dkt. No. 102 at 10; *see* Dkt. No. 113, App'x A at 17. The parties' agreement in this regard is reflected in Appendix A to this Claim Construction Memorandum and Order.

D. "trunk" and "trunks" ('252 Patent, Claims 1–3, 7–9, 13; '3210 Patent, Claims 1, 2, 4, 14)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	"a multiplicity of digital channels capable of carrying voice traffic and control information"

Dkt. No. 87 at 7; Dkt. No. 102 at 10.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "a multiplicity of channels capable of carrying voice traffic, control information, or both."

(1) The Parties' Positions

Genband argues that "[i]n the context of the claims and the specification, the term 'trunk' is simply used to identify communication paths to which the 'remote terminal,' 'local switching system,' and 'switch proxy' can be coupled, as opposed to the communication path between the remote terminal and the subscribers (those paths are called 'subscriber lines')." Dkt. No. 87 at 7. Genband argues that "Metaswitch improperly tries to read an embodiment from the specification into the claims." *Id.*

Metaswitch argues that "[t]he specification explicitly and implicitly defines a trunk as a multiplicity of digital channels capable of carrying voice traffic and control information." Dkt. No. 102 at 10. At the July 15, 2015 hearing, Metaswitch clarified that although each *channel* might perhaps carry only voice traffic or only control information, each *trunk* must carry both voice traffic *and* control information.

Genband replies: "'Trunks' (plural) or a 'trunk group' (plural trunks) can contain multiple digital connections, and in the examples in this patent, various trunks can carry control information and others may carry voice information. Metaswitch seeks a construction that requires multiple connections and requires that each of those connections carry both voice and control information. Neither the plain meaning of the term nor the intrinsic evidence permits this result." Dkt. No. 107 at 4. At the July 15, 2015 hearing, Genband emphasized that the disclosures relied upon by Metaswitch refer to what "trunks," plural, must carry rather than to what a single "trunk" must carry.

(2) Analysis

The Background of the Invention states:

> An access system consists of a remote terminal that is connected to a local switching system by one or more *digital trunk groups*. These trunk groups contain *a multiplicity of digital channels for carrying the voice traffic and separate digital channels for control information* between the switching system and the remote terminal.

'252 Patent at 1:22–28 (emphasis added).

> The subscriber lines terminate at the remote terminal, which converts the voiceband signals into digital signals that are, in turn, multiplexed over digital channels on the trunk lines between the local switching system and the remote terminal. The trunk lines also carry separate digital channels for control information.

’3210 Patent at 1:41–47. Although the specification thus refers to digital channels, the above-quoted reference to “digital trunk groups” suggests that the word “trunk” is not necessarily limited to digital channels. *Cf. Phillips*, 415 F.3d at 1314 (“[T]he claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.”).

Further, Metaswitch has not adequately demonstrated that both voice traffic and control information must be conveyed by a single trunk. *See* ’252 Patent at 1:24–28, 1:41–47 & 3:55–56. To whatever extent the disclosed embodiments can be interpreted as including such a feature, that feature should not be imported into the claims. *See Comark*, 156 F.3d at 1187.

Nonetheless, the specification explicitly discloses that a trunk includes a multiplicity of channels:

> In the present context, a trunk group (also referred to herein as a trunk or trunks) consists of *one or more* physical transmission media (e.g., fiber optical cables or Tl lines) transporting *a multiplicity of digital channels* between network elements such as, but not limited to, trunk group 126 between local switching system 102 and remote terminal 122. In general, remote terminals 122 and 124 consolidate and concentrate signals to and from the customer telephones 114, 116, 118, and 120 and connect these distant telephone subscribers to the local switch 102 over trunks 126 and 128 that have a capacity to support many voice and data channels over long distances.

’252 Patent at 3:55–66 (emphasis added).

The Court therefore hereby construes **“trunk”** to mean **“a multiplicity of channels capable of carrying voice traffic, control information, or both.”**

E. "maintaining . . . ," "switching calls . . . ," "monitoring . . . ," "determining . . . ," "selecting . . . ," and "connecting . . ."[18] ('3210 Patent, Claims 14, 24)

Genband Proposed Construction	Metaswitch Proposed Construction
No construction necessary	"maintaining, with a switch proxy, . . . " "switching calls, with a switch proxy, . . . " "monitoring, with a switch proxy, . . . " "determining, with a switch proxy, . . . " "selecting, with a switch proxy, . . . " "connecting, with a switch proxy, . . . "

Dkt. No. 87 at 8; Dkt. No. 102 at 11.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning (Reject introducing a 'switch proxy' structure into these method claims)."

(1) The Parties' Positions

Genband argues that "Metaswitch's constructions should be rejected because they attempt to import limitations from certain apparatus claims into the method claims." Dkt. No. 87 at 8.

Metaswitch responds that "[d]uring prosecution of the '3210 patent . . . the patentees explicitly defined claims 14 and 24 to include a switch proxy for controlling the remote terminal . . . ." Dkt. No. 102 at 12. Metaswitch urges that "Genband's allegation that the remote

[18] These disputed terms, in full, are: "maintaining a translations database containing information for switching calls among the subscriber telephone lines supported by the remote terminal" / "switching calls among the subscriber telephone lines supported by the remote terminal when the remote terminal is isolated from the local switching system" / "monitoring the trunk for alarms and/or local switching system/remote terminal control signal dialogue to determine whether the remote terminal is isolated from the local switching system" ('3210 Patent, Claim 14); and "determining the line identification of the subscriber from which the digit signals 9–1–1 were received" / "selecting at least one 9–1–1 designate to which to connect the 9–1–1 call based on the determined line identification using a translations database" / "connecting the 9–1–1 call to the selected 9–1–1 designate" ('3210 Patent, Claim 24). Dkt. No. 87 at 8 n.2.

terminal can perform the claimed method for controlling itself is nonsensical [and] contradicts the plain meaning of the claims, as well as the intrinsic evidence, which discloses that every step of claims 14 and 24 is performed by the switch proxy." *Id.*

Genband replies that during prosecution, "Applicants . . . pointed out that while the prior art implements the relevant functionality into the local digital switch, the invention is not integrated into a local switch. Nothing in the intrinsic evidence supports rewriting method Claim 14 of the '3210 Patent to require presence of an unclaimed 'switch proxy' element." Dkt. No. 107 at 4–5.

(2) Analysis

Claims 14 and 24 of the '3210 Patent recite:

> 14. A method for controlling a remote terminal when said remote terminal is isolated from its controlling local switching system, wherein the remote terminal is connected to the local switching system by a trunk and supports a plurality of subscriber telephone lines, said method comprising:
>
> monitoring the trunk for alarms and/or local switching system/remote terminal control signal dialogue to determine whether the remote terminal is isolated from the local switching system;
>
> maintaining a translations database containing information for switching calls among the subscriber telephone lines supported by the remote terminal, said translations database also including translations for switching 9–1–1 calls from subscriber telephone lines to 9–1–1 designates supported by the remote terminal; and
>
> switching calls among the subscriber telephone lines supported by the remote terminal when the remote terminal is isolated from the local switching system.
>
> * * *
>
> 24. A method for controlling a remote terminal when said remote terminal is isolated from its controlling local switching system and a subscriber originating a 9–1–1 call has been detected on said remote terminal, said method comprising:
>
> determining the line identification of the subscriber from which the digit signals 9–1–1 were received;
>
> selecting at least one 9–1–1 designate to which to connect the 9–1–1 call based on the determined line identification using a translations database; and
>
> connecting the 9–1–1 call to the selected 9–1–1 designate.

These claims do not recite a "switch proxy," but Metaswitch cites prosecution history in which the patentee stated:

> Applicants submit that Smith [(United States Patent Application Publication No. 2005/0053059)] does not teach or suggest a *switch proxy for controlling a 'remote terminal', as required in all of the present claims*. Instead, Smith is integrated into a local digital switch (e.g., at a telephone company central office).
>
> * * *
>
> This is in contradistinction to the present application, wherein the emergency standalone switching functionality is specifically, and importantly, independent of the local switching system.

Dkt. No. 102, Ex. 18, June 21, 2010 Response at 2 (emphasis added).

On balance, this prosecution history contains no definitive statements that would warrant importing a "switch proxy" into the above-quoted method claims. *See Omega Eng'g*, 334 F.3d at 1324. Instead, the patentee appears to have been referring to the "switch proxy" in the claims that recite such a limitation or, alternatively or in addition, to the method steps that correspond to (but that are not recited as necessarily being carried out by) a switch proxy as disclosed in the specification. Further, a fair reading of this prosecution history is that the patentee distinguished the Smith reference based on "controlling a 'remote terminal', as required in all of the present claims," rather than based on a "switch proxy . . ., as required in all of the present claims." *See Golight*, 355 F.3d at 1332 ("Because the statements in the prosecution history are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable departure from the ordinary meaning of the term . . . .").

The Court therefore hereby expressly rejects Metaswitch's proposed constructions. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court accordingly hereby construes **"maintaining . . . ," "switching calls . . . ," "monitoring . . . ," "determining . . . ," "selecting . . . ,"** and **"connecting . . ."** to have their **plain meaning**.

F. "local switching system / remote terminal control signal dialogue" ('3210 Patent, Claim 14)

Genband Proposed Construction	**Metaswitch Proposed Construction**
"communication between the local switching system and the remote terminal"	Indefinite

Dkt. No. 71, Ex. A at 33–34; Dkt. No. 87 at 9; Dkt. No. 113, App'x A at 23.

In the parties' April 2, 2015 Joint Claim Construction and Prehearing Statement, Metaswitch asserted that this term is indefinite. Dkt. No. 71, Ex. A at 33–34. This assertion also appears in the parties' June 11, 2015 Joint Claim Construction Chart. Dkt. No. 113, App'x A at 23.

Genband has argued: "A person of ordinary skill in the art can understand the claim phrase 'local switching system/remote terminal control signal dialogue' as referring to communication between the local switching system and the remote terminal." Dkt. No. 87 at 9.

This term is not addressed in Metaswitch's response or Genband's reply. *See* Dkt. Nos. 102 & 107. Because Metaswitch has not briefed this term, the Court hereby rejects any indefiniteness challenge purportedly maintained by Metaswitch as to this term. *See CardSoft, LLC v. VeriFone, Inc.*, 769 F.3d 1114, 1119 (Fed. Cir. 2014) ("Arguments that are not appropriately developed in a party's briefing may be deemed waived.").

X. U.S. PATENT NO. 6,879,667 (Genband)

The '667 Patent, titled "System and Method for Interfacing Telephony Voice Signals with a Broadband Access Network," issued on April 12, 2005, and bears a priority date of May 7, 2001. The Abstract of the '667 Patent states:

> A voice gateway (18) in a telecommunications network (1) includes a plurality of telephony port modules (102). Each telephony port module (102) receives telephony voice signals from a public switched telephony network (13). Each telephony port module (102) includes one or more digital signal processors (110) that perform one or more processing functions on the telephony voice signals. A particular telephony port module (102) may receive a telephony voice signal and use its associated digital signal processor (110) to process the received telephony voice signal or transfer the received telephony voice signal for processing to any digital signal processor (110) on any telephony port module (102). Telephony signals may also be transferred for processing to digital signal processors (110) on another voice gateway (18) in a voice gateway system.

A. "telephony port module" (Claims 1, 6)

Genband Proposed Construction	Metaswitch Proposed Construction
No construction necessary	"a self-contained hardware component that provides physical interface(s) to the PSTN such as GR-303, ISDN-PR1, V5.2, and TR-8"

Dkt. No. 87 at 10; Dkt. No. 102 at 12.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "an interface to a telephone network."

(1) The Parties' Positions

Genband argues that "[t]he plain and ordinary meaning of 'telephony port module' is a module that interfaces with telephony signals. With its overly narrow construction, Metaswitch improperly tries to read into the claims limitations that are contrary to this plain and ordinary meaning." Dkt. No. 87 at 10 (citation omitted). Genband also submits that "Metaswitch's

construction also creates ambiguity rather than clarifies the meaning of the claims. For example, it is unclear what 'self-contained' means in the context of this '667 Patent . . . ." *Id.* at 12.

Metaswitch responds that "'telephony port module' is a term coined by Genband and the '667 inventors, and that otherwise has no plain and ordinary meaning to those of skill in the art." Dkt. No. 102 at 12. Metaswitch also argues that "'self-contained' does not mean that the telephony port module cannot transfer signals to other telephony port modules, as Genband argues. Rather, it means the sub-components of the telephony port module are contained within a single hardware component and are not distributed throughout the gateway or across a network, for example, which is consistent with the description set forth in the '667 patent." *Id.* at 14 (citation omitted).[19]

Genband replies that "the '667 Patent teaches that the DSP sub-components may be distributed and shared among telephony port modules and other elements 'regardless of the location of a particular digital signal processor.'" Dkt. No. 107 at 5 (quoting '667 Patent at 5:42–46).

At the July 15, 2015 hearing, Metaswitch argued that the recent decision by the Court of Appeals for the Federal Circuit in *Williamson v. Citrix Online, LLC*, --- F.3d ----, 2015 WL 3687459, at *7 (Fed. Cir. June 16, 2015), decided after the close of briefing in the present case, warrants finding that the disputed "module" terms in the '667 Patent are means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6. Metaswitch emphasized that the term at issue in *Williamson* was a "module" term. *See id.*, at *8–*9. Metaswitch submitted that the corresponding

[19] Metaswitch also submits testimony of an inventor of patents asserted in *Genband USA LLC v. Metaswitch Networks Ltd., et al.*, No. 2:14-CV-33. Dkt. No. 102, Ex. 3, Apr. 9, 2015 Mills dep. at 170:11–171:20 (referring to "telephony port module" as hardware and as a "proprietary name for a custom-built card that we -- we had internally"). Such testimony is of little, if any, relevance in these claim construction proceedings. *Cf. Howmedica*, 540 F.3d at 1346–47.

structure is "telephony port module 102." Genband responded that the specification describes these structures, which do not cease to be structure when recited in the claims.

(2) Analysis

> It is well settled that [a] claim limitation that actually uses the word "means" invokes a rebuttable presumption that [35 U.S.C] § 112, ¶ 6 applies. By contrast, a claim term that does not use "means" will trigger the rebuttable presumption that § 112, ¶ 6 does not apply. The term "means" is central to the analysis.

Apex Inc. v. Raritan Computer, Inc., 325 F.3d 1364, 1371–1372 (Fed. Cir. 2003) (citations and internal quotation marks omitted); *see Williamson*, 2015 WL 3687459, at *6.

Claim 1 of the '667 Patent, for example, recites (emphasis added):

> 1. A system for interfacing telephony voice signals with a broadband access network, comprising:
>
> a plurality of *telephony port modules* each operable to receive telephony voice signals, each of the plurality of *telephony port modules* including one or more digital signal processors, each digital signal processor operable to perform one or more processing functions on the telephony voice signals, wherein each of the plurality of *telephony port modules* may transfer a received telephony voice signal to any digital signal processor on any of the plurality of *telephony port modules*.

Although Metaswitch argued at the July 15, 2015 hearing that the term "telephony port module" fails to connote structure and is therefore a means-plus-function term, the claims themselves recite each of the telephony port modules "including one or more digital signal processors" or "including a plurality of digital signal processors." *See* '667 Patent at Claims 1 & 6. Moreover, the reference to a "port" also connotes structure known in the art. *See* Dkt. No. 102, Ex. 4, *Dictionary of Computer Science Engineering & Technology* 375 (2001); *see also* Ex. 10, *Newton's Telecom Dictionary* 539–40 (2001); *Phillips*, 415 F.3d at 1318 ("We have especially noted the help that technical dictionaries may provide to a court to better understand the underlying technology and the way in which one of skill in the art might use the claim

terms.") (citations and internal quotation marks omitted). The Court therefore rejects Metaswitch's argument that "telephony port module" is a means-plus-function term.[20]

As for the proper construction, the specification consistently refers to "interfacing telephony voice signals with a broadband access network," *see, e.g.*, '667 Patent at 6:53–54, which suggests that the '667 Patent uses the term "telephony" in contrast with a broadband access network. This supports Metaswitch's proposal that the construction should refer to a telephone network. The specification also discloses:

> Telephony port module 102 provides interfaces to PSTN 11 such as GR-303, ISDN-PR1, V5.2, and TR-8 and may support T1, E1, and STS-1, among other[] implementations.

'667 Patent at 5:24–27.

Nonetheless, to whatever extent Metaswitch is proposing that the disputed term should be limited to specific protocols or other details of the illustration in Figure 2 and the associated written description (*see, e.g.*, '667 Patent at 5:24–27 (quoted above)), Metaswitch's proposal is rejected as improperly importing limitations from a preferred embodiment. *See Comark*, 156 F.3d at 1187.

Further, as to extrinsic evidence, Genband emphasizes that technical dictionaries submitted by Metaswitch indicate that a "module" may encompass software and that "port" can encompass an "input/output channel" or "logical interface." *See, e.g.*, Dkt. No. 102, Ex. 4, *Dictionary of Computer Science Engineering & Technology* 315, 375 (2001); *id.*, Ex. 10, *Newton's Telecom Dictionary* 539–40 (2001); *Phillips*, 415 F.3d at 1318 ("We have especially noted the help that technical dictionaries may provide to a court to better understand the

[20] *See generally Williamson*, 2015 WL 3687459; *see, e.g., Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, 649 F.3d 1350, 1358–59 (Fed. Cir. 2011), *abrogated on other grounds by Williamson*, 2015 WL 3687459.

underlying technology and the way in which one of skill in the art might use the claim terms.") (citations and internal quotation marks omitted).

Particularly in light of this extrinsic evidence, Metaswitch's proposal of "self-contained" is unclear and would tend to confuse rather than clarify the scope of the claims. Also of note, the specification refers to sharing of resources among modules. *See* '667 Patent at 5:42–46. Metaswitch appears to argue that "self-contained" requires a physically distinct structure because Figure 2 illustrates TPM 102 as a distinct box in the figure. Metaswitch has not demonstrated that a box in a schematic necessarily signifies a distinct physical component. Moreover, "patent coverage is not necessarily limited to inventions that look like the ones in the figures." *MBO Labs.*, 474 F.3d at 1333. Finally, Metaswitch also cites several dictionary definitions of "port," but none of those extrinsic definitions compel the particular protocols or physical distinctness that Metaswitch appears to be proposing. *See* Dkt. No. 102 at Exs. 4–10.

On balance, the term "telephony port module" simply refers to an interface to a telephone network, and additional supporting context is provided by surrounding claim language, as is evident in above-reproduced Claim 1. Although the specification refers to the Public Switched Telephone Network ("PSTN") (*see, e.g.*, '667 Patent at 5:47–50), the claims do not recite the PSTN but instead refer to "telephony" more generally.

The Court therefore hereby construes **"telephony port module"** to mean **"an interface to a telephone network."**

B. "access network module" (Claim 6)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	"a self-contained hardware component that provides redundant interfaces to a backbone broadband network, including ATM and IP networks"

Dkt. No. 87 at 12; Dkt. No. 102 at 15.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "an interface to a broadband network."

(1) The Parties' Positions

Genband argues that "[t]he plain and ordinary meaning of 'access network module' in the context of the '667 Patent is a module that interfaces with a broadband access network." Dkt. No. 87 at 12. Genband urges that Metaswitch's proposed limitations are not set forth in the claim, and "Metaswitch has not identified any special definition of 'access network module' or disclaimer that justifies limiting the plain meaning of this term." *Id.* at 13.

Metaswitch responds that this term "does not have a plain and ordinary meaning outside of the context of the '667 patent" and therefore requires construction. Dkt. No. 102 at 15. Metaswitch urges that "[t]he specification describes what the access network module *is*, not just what it is in one particular embodiment." *Id.* at 16.

Genband replies that "not even one of Metaswitch's four proposed restrictive words ('self,' 'contained,' 'hardware,' or 'component') appears by itself in the '667 Patent, let alone together or as an express limitation on any elements." Dkt. No. 107 at 5.

At the July 15, 2015 hearing, Metaswitch argued that the recent decision by the Court of Appeals for the Federal Circuit in *Williamson*, 2015 WL 3687459, decided after the close of briefing in the present case, warrants finding that the disputed "module" terms in the '667 Patent are means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6. Metaswitch emphasized that *Williamson* abrogated the "strong" characterization of the presumption against means-plus-function treatment for terms not using the word "means" and, in addition, characterized "module" as "a well-known nonce word that can operate as a substitute for 'means' in the

context of § 112, para. 6." 2015 WL 3687459, at *8. Genband responded that the specification describes these structures, which do not cease to be structure when recited in the claims.

(2) Analysis

This disputed term appears only in Claim 6 of the '667 Patent, which recites:

> 6. A gateway system for interfacing telephony signals with a broadband access network, comprising:
>
> *an access network module operable to interface with the broadband access network*;
>
> at least one telephony port module operable to interface with a public switched telephone network, the telephony port module including a plurality of digital signal processors operable to perform processing functions on telephony signals received from either the broadband access network or the public switched telephone network;
>
> a system controller module operable to manage a flow of telephony signals between the *access network module* and the telephony port module, the telephony port module operable to assign telephony signals to any digital signal processor of the telephony port module.

Unlike the term "telephony port module," the term "access network module" is not recited in the claim in association with any distinct structure, and the term does not modify the word "module" with any language that imparts structure. *Williamson* is analogous:

> The prefix "distributed learning control" does not impart structure into the term "module." These words do not describe a sufficiently definite structure. Although the "distributed learning control module" is described in a certain level of detail in the written description, the written description fails to impart any structural significance to the term.

2015 WL 3687459, at *8. In particular, the phrase "access network" merely refers to a broadband network:

> Access network module 100 provides redundant interfaces to a backbone broadband network, including ATM and IP networks, and may support DS-3, OC-3, 10/100BT ethernet, among other, implementations.

’667 Patent at 5:27–30; *see also id.* at 3:25–30 (“Access networks 92 may include any suitable combination of data switches, routers, or other data communication equipment that communicates data packets using a data communication protocol.”).

The term “access network” module should therefore be construed as a means-plus-function term with the claimed function set forth in the claim above, and the corresponding structure is above-quoted “access network module 100.” *Id.* at 5:27–30.

The Court accordingly hereby finds that **“access network module”** is a **means-plus-function term**, that the claimed function is **“to interface with the broadband access network,”** and the corresponding structure is **“access network module 100, and equivalents thereof.”**

C. “system controller module” (Claim 6)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	“a self-contained hardware and software component that performs overall control functions and manages the flow of information between and among other modules”

Dkt. No. 87 at 13; Dkt. No. 102 at 16.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: “Plain meaning / Expressly reject ‘self-contained.’”

(1) The Parties’ Positions

Genband argues that this disputed term does not require construction because “the claim itself defines the functions of the ‘system controller module.’” Dkt. No. 87 at 13. Genband submits that “[t]he plain and ordinary meaning of ‘module’ encompasses either hardware or software,” and “Claim 6 already specifies the functions of the system controller module.” *Id.* at 14.

Metaswitch responds that this term has no plain and ordinary meaning. Dkt. No. 102 at 16. Metaswitch also submits that "clear intrinsic evidence show[s] the SCM [(system controller module)] as a hardware component that implements control functionality (*i.e.*, through software)." *Id.* at 18.[21]

Genband replies that nothing supports Metaswitch's proposal of "self-contained," and "Claim 6 already specifies the functions of the system controller module." Dkt. No. 107 at 6.

At the July 15, 2015 hearing, Metaswitch argued that the recent decision by the Court of Appeals for the Federal Circuit in *Williamson*, 2015 WL 3687459, decided after the close of briefing in the present case, warrants finding that the disputed "module" terms in the '667 Patent are means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6. Genband responded that the specification describes these structures, which do not cease to be structure when recited in the claims.

(2) Analysis

Claim 6 of the '667 Patent recites (emphasis added):

> 6. A gateway system for interfacing telephony signals with a broadband access network, comprising:
>
> an access network module operable to interface with the broadband access network;
>
> at least one telephony port module operable to interface with a public switched telephone network, the telephony port module including a plurality of digital signal processors operable to perform processing functions on telephony signals received from either the broadband access network or the public switched telephone network;
>
> a *system controller module* operable to manage a flow of telephony signals between the access network module and the telephony port module, the telephony port module operable to assign telephony signals to any digital signal processor of the telephony port module.

[21] Metaswitch has also cited inventor testimony. *See* Dkt. No. 102, Ex. 12, Dec. 5, 2015 Carew dep. at 131:12–132:20 ("systems control module" "was a card in the G6" and "would have had control software"). Such testimony is of little, if any, relevance in these claim construction proceedings. *See Howmedica*, 540 F.3d at 1346–47.

Although Metaswitch argued at the July 15, 2015 hearing that the term "system controller module" fails to connote structure and is therefore a means-plus-function term, the disputed term itself recites a "controller," which connotes structure known in the art. *See* Dkt. No. 102, Ex. 4, *Dictionary of Computer Science Engineering & Technology* 105 (2001) ("(1) device that is used to transfer information between a peripheral and the CPU. (2) a device used to make inputs during manual control."); *see also Phillips*, 415 F.3d at 1318 ("We have especially noted the help that technical dictionaries may provide to a court to better understand the underlying technology and the way in which one of skill in the art might use the claim terms.") (citations and internal quotation marks omitted). The Court therefore rejects Metaswitch's argument that "system controller module" is a means-plus-function term.

As for the proper construction, the specification discloses:

> System controller module 104 performs overall control functions for gateway 18 and manages the flow of information between and among the other modules within gateway 18.

'667 Patent at 5:21–24.

Metaswitch's proposal of "self-contained" is rejected for substantially the same reasons as for the term "telephony port module" (discussed above). Further, the claim expressly sets forth that the system controller module is "operable to manage a flow of telephony signals between the access network module and the telephony port module." No further explanation is required.

The Court therefore hereby expressly rejects Metaswitch's proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court accordingly hereby construes **"system controller module"** to have its **plain meaning**.

D. "wherein specific digital signal processors are assigned to perform a specific processing function" (Claim 3), "wherein the telephony port module receiving telephony signals for processing may transfer the telephony signals to one or more digital signal processors on a different telephony port module" (Claim 7), "wherein the telephony port module dynamically assigns telephony signals to digital signal processors to improve digital signal processor utilization" (Claim 8), and "wherein the telephony port module performs processing of telephony signals according to subscriber profiles" (Claim 9)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	Indefinite

Dkt. No. 87 at 15; Dkt. No. 102 at 18.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject Metaswitch's argument that these terms introduce method steps into apparatus claims."

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to these disputed terms.

(1) The Parties' Positions

Genband argues that although a claim may not be simultaneously directed to an apparatus and a method of using that apparatus, the disputed 'wherein' limitations are directed to the capabilities of components within those systems." Dkt. No. 87 at 15–16.

Metaswitch responds that each of Claims 3, 7, 8, and 9 "depends from an apparatus claim yet contains process limitations directed to use of that apparatus." Dkt. No. 102 at 18. Metaswitch explains that these claims are "directed to the execution of process steps by the claimed apparatus . . ., not just the mere capability to perform those steps." *Id.* at 19.

Genband replies that "[t]he claims here 'describe what the apparatuses do, when used in a certain way . . . [t]hey do not claim use of the apparatuses,' and thus they are valid." Dkt.

No. 107 at 6 (quoting *Yodlee, Inc. v. CashEdge, Inc.*, No. 05–01550, 2006 WL 3456610, at *4–*6 (N.D. Cal. Nov. 29, 2006)) (emphasis omitted by Genband).

(2) Analysis

As a general matter, "reciting both an apparatus and a method of using that apparatus renders a claim indefinite under [35 U.S.C.] section 112, paragraph 2." *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005).

On balance, the principles set forth in the *Yodlee* case cited by Genband are applicable here:

> A simple analogy would be a claim which physically describes a pair of scissors designed to cut paper, then states, "upon opening and closing the sharp edges of the scissors on a piece of paper, the paper is cut." The language describes the capability of the scissors; it is function language. Infringement occurs upon the manufacturing and sale of scissors that are capable of cutting paper. The *IPXL* rule would apply only if the patent claimed the physical description of the scissors, then stated within the same claim: "and the method of using said scissors to cut a piece of paper." The claims at issue here are analogous to the former example. They describe what the apparatuses do, when used a certain way. They do not claim *use* of the apparatuses. Thus, they do not "recit[e] both an apparatus and a method of using that apparatus." *IPXL*, 430 F.3d at 1384.

Yodlee, 2006 WL 3456610, at *5.

Although *Yodlee* is not binding authority, the reasoning is persuasive that here the disputed terms refer to configuration and do not introduce method steps. The Court therefore expressly rejects Metaswitch's indefiniteness arguments. No further construction is necessary.

The Court accordingly hereby construes **"wherein specific digital signal processors are assigned to perform a specific processing function," "wherein the telephony port module receiving telephony signals for processing may transfer the telephony signals to one or more digital signal processors on a different telephony port module," "wherein the telephony port module dynamically assigns telephony signals to digital signal processors to**

improve digital signal processor utilization," and **"wherein the telephony port module performs processing of telephony signals according to subscriber profiles"** to have their **plain meaning**.

XI. U.S. PATENT NO. 7,162,024 (Genband)

The '024 Patent, titled "System and Method for Telephony Call Control," issued on January 9, 2007, and bears a priority date of September 22, 2000. The Abstract of the '024 Patent states:

> A telephony call manager includes a call model having call processing logic, and a signaling interface for each respective signaling protocol encountered by the call manager. Each signaling interface is operable to convert call events in each respective signaling protocol to messages of a generic protocol and communicate the messages to the call model.

A. "messages of the generic protocol" (Claims 1, 17, 33, 34)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	"a communication conveying information or data formatted according to a generic set of rules, procedures, or conventions relating to data handling between two logical or physical devices"

Dkt. No. 87 at 17; Dkt. No. 102 at 20.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "No construction necessary apart from 'protocol' defined as 'a set of rules, procedures, or conventions relating to date handling.'"

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term.

(1) The Parties' Positions

Genband argues that "'[m]essage' has a well-understood plain and ordinary meaning, and the '024 Patent uses that term consistent with this meaning." Dkt. No. 87 at 17. Genband also argues that Metaswitch's proposal of referring to "format" should be rejected "because protocols may address timing, order of messages, or features other than format of data." *Id.* at 18. Finally, Genband argues that, as found in other litigation between the parties, the specification and prosecution history of the '024 Patent do not require communication between two devices (whether logical or physical). *Id.*; *see Genband USA LLC v. Metaswitch Networks Ltd., et al.*, No. 2:14-CV-33, Dkt. No. 135 at 60 (E.D. Tex. Apr. 2, 2015) ("*Genband*").

Metaswitch responds: "Further clarification of the term 'message' is needed, particularly in view of the '024 patent's reference to 'call events' and 'converting the call events to messages of a generic protocol.' ('024 at 1:66–67.) Thus, messages are at least distinct from 'call events' yet, under Genband's proposal, call events may well fall within the scope of the ambiguous 'plain and ordinary meaning' of messages. A construction is necessary." Dkt. No. 102 at 20.

Genband replies that Metaswitch's proposal needlessly adds ambiguity, "such as what is the difference between information and data," and "the '024 Patent discloses that a message may be sent between processes within a single device." Dkt. No. 107 at 6–7. Genband also reiterates that "[t]he '024 Patent describes that the generic protocol is used to map call events and does not require that any specific format be used to represent those call events." *Id.* at 7.

(2) Analysis

The parties agree that a "protocol" is "a set of rules, procedures, or conventions relating to data handling," which is the *Genband* construction of "protocol" for Genband's United States Patent No. 6,885,658. *Genband* at 60.

Here as in *Genband*, the Court finds that the term "protocol" does not require communication between two distinct devices. *See id.* Metaswitch has not demonstrated that the term "messages" requires such a limitation. Also, although *Genband* addressed the term "protocol" in a different patent, Metaswitch has not shown that anything in the '024 Patent warrants a different conclusion here.

Metaswitch submits that the specification discloses, for example: "The ECCP [(Extensible Call Control Protocol)] messages are sent and received for both the originating and terminating parties in a two-party call." '024 Patent at 4:8–9. This is a particular feature of a preferred embodiment, however, and should not be imported into the construction of the disputed term. *See Comark*, 156 F.3d at 1187. Further, the specification refers to inter-*process* messages:

> The call manager includes a call model 40 and communicates with other processes in multi-services controller using *inter-process messages*.

'024 Patent at 3:10–12 (emphasis added). The specification thus appears to confirm that the seemingly generic term "messages" does not impose any inter-*device* requirement.

Finally, the prosecution history cited by Metaswitch contains no relevant disclaimers or definitive statements to the contrary. *See* Dkt. No. 102, Ex. 13, July 20, 2006 Response to Final Office Action Mailed March 31, 2006 at 12 ("the present application teaches that messages may be communicated from the signaling interface to the call model"); *see also Omega Eng'g*, 334 F.3d at 1324.

The remaining issue, then, is whether "messages" must be distinct from "call events," as Metaswitch has proposed. The specification discloses "*converting the call events to messages* of a generic protocol," which appears to be consistent with Metaswitch's proposal. '024 Patent at 1:66–67 (emphasis added). Nonetheless, because "call event" has not been briefed as a disputed term, and because Metaswitch has not explained in what manner a "message" must differ from a

"call event," no claim construction finding is appropriate in this regard. Also of note, the claims at issue already distinctly recite "call events" and "messages." *See* '024 Patent at Claims 1, 17, 33 & 34.

The Court therefore hereby expressly rejects Metaswitch's proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court accordingly hereby construes **"messages of the generic protocol"** to have its **plain meaning** apart from "protocol" being defined as "a set of rules, procedures, or conventions relating to data handling" as noted above.

B. "signaling interface" (Claims 1, 17)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	"a device or component physically and/or logically connecting signals of a signaling protocol with the call manager"[22]

Dkt. No. 87 at 18; Dkt. No. 102 at 21.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject requiring physically distinct 'device or component.'"

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term.

[22] Metaswitch previously proposed: "a device or component physically *and* logically connecting signals of a signaling protocol with the call manager." Dkt. No. 71, Ex. A at 8 (emphasis added); *see* Dkt. No. 113, Ex. A at 6.

(1) The Parties' Positions

Genband argues that "[t]he plain and ordinary meaning of 'signaling interface' is an interface operable to receive signaling information." Dkt. No. 87 at 18. Genband also submits that the dictionaries cited by Metaswitch "show that an interface is not limited to a physical device or component but rather may also encompass software interfaces." *Id.* at 19.

Metaswitch responds that "the '024 patent consistently uses 'interface' in referring to connections between different logical or physical devices." Dkt. No. 102 at 21. Metaswitch also submits that "every communication within an electrical/computer system is carried using signals." *Id.* at 22.

Genband replies that "Metaswitch's revised construction still requires a 'device or component,' which is improper. As disclosed in the '024 Patent, the claimed interface could be a software interface as opposed to a device or component." Dkt. No. 107 at 7 (citing '024 Patent at 4:31–32). Genband also submits that "[t]he term 'signaling' does not refer to electrical signals. Because electrical signals are communicated by physical components, Metaswitch's construction is just another way of limiting the claimed interface to a physical component—something which Metaswitch now admits is improper." Dkt. No. 107 at 7.

(2) Analysis

Claim 1 of the '024 Patent, for example, recites (emphasis added):

> 1. A telephony call manager, comprising:
>
> a call model having call processing logic; and
>
> a *signaling interface* for each respective one of a plurality of signaling protocols encountered by the call manager, *wherein the signaling interfaces are, collectively, configured to*:
>
> convert call events in each respective signaling protocol to messages of a generic protocol and communicate the messages to the call model;
>
> convert packet call events from a packet signaling protocol to a PSTN signaling protocol;

> convert PSTN call events from a PSTN signaling protocol to a packet signaling protocol; and
>
> convert in-band signaling messages to out-band signaling messages.

The claim thus recites limitations regarding the "signaling interfaces." Claim 17 is similar. In light of the context provided by surrounding claim language, Metaswitch's proposed construction would tend to confuse rather than clarify the scope of the claims. Nothing in the extrinsic dictionary definitions submitted by Metaswitch compels a contrary finding. *See* Dkt. No. 102 at Exs. 6 & 7. Further, any physical distinctness or particular protocols identified in the specification are specific features of preferred embodiments and should not be imported into the construction of this disputed term. *See* '024 Patent at 2:39–44 & 2:56–66.[23]

The Court therefore hereby expressly rejects Metaswitch's proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court accordingly hereby construes **"signaling interface"** to have its **plain meaning**.

C. "a call model having call processing logic" (Claims 1, 17)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	Indefinite

Dkt. No. 87 at 20; Dkt. No. 102 at 22.

[23] *See also* Dkt. No. 102 at 21 n.12:

> Genband argues that "Metaswitch improperly limits 'signaling interface' to a *physical* device or component." (Br. [(Dkt. No. 87)] at 19.) Metaswitch's construction, however, was not intended to contain any such requirement. To further clarify this point, Metaswitch has provided an updated construction as follows: "device or component physically and/*or* logically connecting signals of a signaling protocol with the call manager." Thus Genband's "physical" dispute is moot.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject indefiniteness argument."

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term.

(1) The Parties' Positions

Genband argues that "a person of ordinary skill would understand that this limitation is directed to the capability of processing call events." Dkt. No. 87 at 20.

Metaswitch responds that "[o]ther than illustrating the 'call model' as an amorphous blob in Fig. 3 . . ., the '024 patent provides no explanation or description of what a call model actually is." Dkt. No. 102 at 23.

Genband replies that "[a] call model models calls—that is, it represents the states of calls to facilitate call processing." Dkt. No. 107 at 8. Genband submits that "[e]ven if a term covers a broad class of structures or identifies structure by their function, that is sufficient to avoid means-plus-function treatment." *Id.* (citation omitted).

(2) Analysis

> It is well settled that [a] claim limitation that actually uses the word "means" invokes a rebuttable presumption that [35 U.S.C] § 112, ¶ 6 applies. By contrast, a claim term that does not use "means" will trigger the rebuttable presumption that § 112, ¶ 6 does not apply. The term "means" is central to the analysis.

Apex, 325 F.3d at 1371–1372 (citations and internal quotation marks omitted); *see Williamson*, 2015 WL 3687459, at *6.

The Summary of the Invention states:

> In accordance with another embodiment of the present invention, a method for interfacing a telephony call manager [with] various signaling protocols includes the steps of mapping call events of various signaling protocols to messages of a

> generic protocol, and communicating the messages to a *call model* to process the call events.

'024 Patent at 1:56–61 (emphasis added); *see id.* at 2:2–4 ("receiving generic protocol messages from the call model"); *see also id.* at 3:18–20 ("Instead of duplicating the *call model* logic for each signaling protocol, the call events in each signaling protocol is [*sic*] mapped into an ECCP [(Extensible Call Control Protocol)] event.") (emphasis added).

On balance, the specification is sufficiently clear that "a call model having call processing logic" handles calls. Presumably, a call could be handled according to whatever logic is desired or appropriate because whereas the claims of the '024 Patent recite converting call events to a generic protocol for use with a call model, the claims do not include any limitations on the manner of call processing. Finally, Genband's expert has persuasively opined that a person of ordinary skill in the art would be able to understand the terms "call model" and "call processing logic" with reasonable certainty. *See* Dkt. No. 87, Ex. 3, Apr. 30, 2015 Lipoff Decl. at ¶ 63.

Thus, Metaswitch has failed to overcome the presumption against means-plus-function treatment. In particular, the term "call model" is sufficiently structural. *Cf. Apex*, 325 F.3d at 1372 ("While we do not find it necessary to hold that the term 'circuit' by itself always connotes sufficient structure, the term 'circuit' with an appropriate identifier such as 'interface,' 'programming' and 'logic,' certainly identifies some structural meaning to one of ordinary skill in the art."); *Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 705 (Fed. Cir. 1998) ("Even though the term 'detector' does not specifically evoke a particular structure, it does convey to one knowledgeable in the art a variety of structures known as 'detectors.' We therefore conclude that the term 'detector' is a sufficiently definite structural term to preclude the application of § 112, ¶ 6.")

The Court therefore expressly rejects Metaswitch's indefiniteness argument. No further construction is necessary.

The Court accordingly hereby construes **"a call model having call processing logic"** to have its **plain meaning**.

D. "a packet signaling protocol," "a PSTN signaling protocol," and "PSTN and packet signaling protocols" (Claims 1, 17, 33)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	Indefinite

Dkt. No. 87 at 20; Dkt. No. 102 at 24.

Genband has argued that "a person of ordinary skill would understand that a 'packet signal protocol' is a signaling protocol for calls over a packet network and that a 'PSTN signaling protocol' refers to a signaling protocol for calls over a circuit-switched network (such as the PSTN or public-switched telephone network)." Dkt. No. 87 at 20–21.

Metaswitch has responded: "Despite the '024 patent's failure to explain what it means by these terms, in the interest of streamlining the issues in dispute for claim construction, Metaswitch is willing to accept Genband's proposed plain and ordinary meanings . . . as the agreed-upon constructions for 'packet signaling protocol' and 'PSTN signaling protocol.'" Dkt. No. 102 at 24.

The parties' agreement in this regard is reflected in Appendix A to this Claim Construction Memorandum and Order.

E. "process the call events via the first message" and "process the in-band signaling messages via the second messages" (Claim 33)

Genband Proposed Construction	Metaswitch Proposed Construction
No construction necessary	Indefinite

Dkt. No. 87 at 22; Dkt. No. 102 at 24.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject indefiniteness argument."

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term.

(1) The Parties' Positions

Genband submits that these disputed terms relate to a "call model," which "can be a state machine that is capable of representing various call states or events, such as call setup and call teardown." Dkt. No. 87 at 22. Genband concludes that "these limitations are directed to using the recited messages to process calls or call events, such as setting up a call or tearing down a call." *Id.*

Metaswitch responds: "The '024 patent fails to explain what it means to process call events and in-band signaling messages 'via the' first and second messages. Are the messages themselves processed? Do the messages contain instructions that are executed? It is unclear, and the '024 patent provides no explanation." Dkt. No. 102 at 24.

Genband replies that "[t]he term 'via' simply means that the claimed message[s] are used to perform the recited processing. In particular, the call events are processed using the first

message, and the in-band signaling messages are processed using the second message." Dkt. No. 107 at 8.

(2) Analysis

Claim 33 of the '024 Patent recites (emphasis added):

> 33. A method for interfacing a telephony call manager with various signaling protocols, comprising:
>
> converting call events between PSTN and packet signaling protocols by: mapping events of one of the signaling protocols to first messages of a generic protocol, communicating the first messages to a call model, and utilizing the call model to *process the call events via the first messages*; and
>
> converting in-band signaling messages to out-band signaling messages by: mapping events of the in-band signaling messages to second messages of the generic protocol, communicating the second messages to the call model, and utilizing the call model to *process the in-band signaling messages via the second messages*.

On balance, the claim is sufficiently clear that the call model uses the "first messages" and "second messages" to process a call. The claim does not recite any limitations as to the manner of use, and Metaswitch has not adequately demonstrated that any further detail is required in this regard. *See PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) ("[A]fter the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact.").

The Court therefore hereby expressly rejects Metaswitch's indefiniteness argument. No further construction is necessary.

The Court accordingly hereby construes **"process the call events via the first message"** and **"process the in-band signaling messages via the second messages"** to have their **plain meaning**.

XII. U.S. PATENT NO. 8,600,006 (Genband)

The '006 Patent, titled "Voice Continuity Among User Terminals," issued on December 3, 2013, and bears a filing date of December 27, 2006. The Abstract of the '006 Patent states:

> The present invention moves service control, including call control, for a user element from any number of subsystems to a multimedia subsystem (MS). Call control for originating or terminating a call in any subsystem as well as transferring the call between user elements is anchored at a continuity control function (CCF) in the MS. A call may be transferred by the CCF from a first user element to a second user element in the same or different subsystems upon receiving a request from the second user element. A user may invoke a transfer from the first user element to the second user element by having the second user element send an appropriate request to the CCF. The request may be provided to the CCF by initiating a call from the second user element that is intended for the CCF, when the call with the first user element is active.

A. "signaling anchor point" (Claims 1, 13–15)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	"location through which all call signaling in the multimedia subsystem is routed"

Dkt. No. 87 at 23; Dkt. No. 102 at 25.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "point through which call signaling in the multimedia subsystem is routed such that a call can be transferred from one user element to another / Expressly reject 'all.'"

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term.

(1) The Parties' Positions

Genband argues that "[i]n the context of these claims, a signaling anchor point is simply a point through which signaling information can be exchanged." Dkt. No. 87 at 23. Genband urges

that "Metaswitch's proposed construction impermissibly narrows the claimed 'signaling anchor point' by requiring it to be the location through which '*all* call signaling' is routed." *Id.*

Metaswitch responds that "[a]s explained throughout the specification, the signaling anchor point is the location within the multimedia subsystem that 'enables' a call transfer to occur by terminating old 'remote signaling legs' and establishing new 'access signaling legs.'" Dkt. No. 102 at 25 (citing '006 Patent at 2:22–62). Metaswitch submits that "Genband's plain meaning construction completely reads out the 'anchor point' part of this term." Dkt. No. 102 at 25.

Genband replies that "the specification explicitly discloses embodiments where only 'most,' and not necessarily all, call signaling passes through the signaling anchor point." Dkt. No. 107 at 9 (citing '006 Patent at 4:12–17).

(2) Analysis

The Summary of the Invention states:

> Call control for originating or terminating a call in any subsystem as well as transferring the call between user elements is anchored at a continuity control function (CCF) in the MS.

'006 Patent at 2:5–8. The specification further discloses:

> In the following embodiments, call control for originating and terminating calls in the CS or MS as well as transferring calls from one user element to another within a given subsystem or between different subsystems is anchored at a continuity control function (CCF) in the MS. *Most*, if not all, call signaling for the call is passed through the CCF.

Id. at 4:12–17 (emphasis added).

Particularly in light of the above-quoted disclosure, Metaswitch has not adequately demonstrated that *all* call signaling must pass through the "signaling anchor point." Metaswitch submits the opinions of its expert (*see* Dkt. No. 102, Ex. 11, Madisetti Decl. at ¶¶ 145–50), but

those opinions rely upon specific features of preferred embodiments that should not be imported into the construction of the disputed term. *See Comark*, 156 F.3d at 1187; *see, e.g.,*'006 Patent at 2:26–37, 5:30–34 & 6:18–23.

The Court therefore hereby expressly rejects Metaswitch's proposed construction. Some construction is nonetheless appropriate to assist the finder of fact. *See TQP Dev., LLC v. Merrill Lynch & Co., Inc.*, No. 2:08-CV-471, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J.) ("The Court believes that some construction of the disputed claim language will assist the jury to understand the claims."). Metaswitch's proposal of "location" is replaced with "point" so as to avoid the potential geographic connotations commonly associated with "location."

The Court accordingly hereby construes **"signaling anchor point"** to mean **"point through which call signaling in the multimedia subsystem is routed such that a call can be transferred from one user element to another."**

B. "call" and "second call" (Claims 1, 2, 12–16)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	"voice session" / "second voice session"

Dkt. No. 87 at 24; Dkt. No. 102 at 26.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject 'voice.'"

(1) The Parties' Positions

Genband argues that "[t]he term 'call' has a plain and ordinary meaning; namely, a communication session (such [as] a voice session, a data session, a multimedia session, or a fax session) or a request to set up such a session." Dkt. No. 87 at 24.

Metaswitch responds that the specification explains that a "multimedia session" is an alternate form of communication that is different from a "call." Dkt. No. 102 at 27. Metaswitch submits that "[t]he claim language that uses the term 'multimedia' does so in the context of a multimedia subsystem, and not a call." *Id.* Metaswitch also cites prosecution history. *See id.* at 27.

Genband replies that "the specification states merely that voice sessions are calls—not, as Metaswitch argues, that all calls must be voice sessions." Dkt. No. 107 at 9.

(2) Analysis

The Background of the Invention states: "Packet communications have evolved to a point where *voice sessions, or calls,* can be supported with essentially the same quality of service as that provided by circuit-switched communications." '006 Patent at 1:11–14 (emphasis added). This statement could be read as meaning that the term "call" is synonymous with "voice session." Alternatively, this statement could be read such that "voice" modifies "calls" as well as "sessions" and/or such that "calls" are something in addition to "sessions."

A broad reading is appropriate because other portions of the specification disclose a "call or session" without specifying "voice." *See* '006 Patent at 5:25–30; *see also id.* at 9:34–47 ("call (or session)"). Claim 1 itself recites (emphasis added) "a *multimedia* subsystem." Also, the prosecution history cited by Metaswitch does not contain any relevant disclaimer or definitive statement in this regard. *See* Dkt. No. 107, Ex. D, May 25, 2011 Amendment Under 37 C.F.R. § 1.116; *see also Omega Eng'g*, 334 F.3d at 1324.

Finally, Genband submits an extrinsic technical dictionary that defines "call" simply as a "connection," not necessarily a voice connection. Dkt. No. 87, Ex. 12, *Webster's New World*

Telecom Dictionary 79 (2008). Although that dictionary includes a definition that refers to "a real-time telephone conversation between two or more live people," other definitions in that dictionary are not so limited. *See id.*; *see also Phillips*, 415 F.3d at 1318 ("We have especially noted the help that technical dictionaries may provide to a court to better understand the underlying technology and the way in which one of skill in the art might use the claim terms.") (citations and internal quotation marks omitted).

The Court therefore hereby expressly rejects Metaswitch's proposed constructions, which would improperly limit the disputed terms by requiring "voice." Likewise, Metaswitch has not demonstrated that the specification uses "call" and "session" synonymously. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court accordingly hereby construes **"call"** and **"second call"** to have their **plain meaning**.

C. "continuity control function" (Claims 1, 3, 13–15)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	"a service provided in a home MS and that anchors CS and MS calls to enable call transfers as described in 3GPP TS 23.206 and 23.806" Alternatively: Indefinite

Dkt. No. 87 at 25; Dkt. No. 102 at 28.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject indefiniteness argument."

(1) The Parties' Positions

Genband argues that "neither the specification nor the claims require the incorporation of the[] standards [cited by Metaswitch] into this claim term." Dkt. No. 87 at 25. Genband also notes that in prior litigation, the Court rejected Metaswitch's proposal that constructions for the terms "SCF," "SCP," "SSF," and "SSP" should incorporate entire International Telecommunication Union ("ITU") standards. *Id.* at 26–27.

Metaswitch responds that "[t]he term continuity control function does not have a plain and ordinary meaning, nor is it a term of art in the industry." Dkt. No. 102 at 28. Metaswitch urges that "this term has no meaning outside the context of the 3GPP technical specifications." *Id.* Metaswitch concludes that "[t]he term is therefore indefinite if not construed in the context of the 3GPP technical specifications of which it is a part." *Id.* at 29.

Genband replies that "the specification makes only a single reference to TS 23.206 and does so solely to provide 'examples [that] are not intended to limit the scope of the invention.' '006 Patent at 10:12–20. Metaswitch's attempt to read hundreds of pages of 3GPP standards into the claims based upon this statement is unjustified." Dkt. No. 107 at 9–10.

(2) Analysis

The specification does not refer to 3GPP TS 23.806, and the specification refers to 3GPP TS 23.206 only as an example:

> The following communication flows are high level, and provide illustrative examples of originating, terminating, and transferring calls between user element 16C and 16M. The examples are not intended to limit the scope of the invention and are provided merely to further clarify the various concepts of the present invention. For originating calls, calls from user element 16C may be brought into the MS 12 as defined in the Third Generation Partnership Project's (3GPP) TS 23.206, which is incorporated herein by reference.

’006 Patent at 10:12–20. On balance, Metaswitch has not offered any persuasive evidence in support of its assertion that the disputed term has meaning only with reference to the cited 3GPP technical specifications. In particular, Metaswitch has not persuasively demonstrated that references in the specification to “Internet Protocol (IP) Multimedia Subsystem (IMS)” (*see id.* at 2:1–2 & 3:66–67) necessarily require the disputed term to be defined with reference to 3GPP standards. *See* Dkt. No. 102, Ex. 11, Madisetti Decl. at ¶ 161.

The Court therefore hereby expressly rejects Metaswitch’s proposed construction. Further, the Court hereby expressly rejects Metaswitch’s argument that if its proposed construction is not adopted, then the disputed term is indefinite. *See id.* at ¶ 164.

As for the proper construction, the specification discloses:

> In the following embodiments, call control for originating and terminating calls in the CS or MS as well as transferring calls from one user element to another within a given subsystem or between different subsystems is anchored at a continuity control function (CCF) in the MS. Most, if not all, call signaling for the call is passed through the CCF. *The CCF is a service provided in a home MS and anchors CS and MS 20 calls to enable transfers* from one user element to another within the CS or MS as well as across the CS and MS.

’006 Patent at 4:13–21 (emphasis added). Because this statement of what the CCF “is” appears in a paragraph that refers to “the following embodiments,” no clear lexicography is apparent. *See CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (“[T]he claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and *clearly* set forth a definition of the disputed claim term in either the specification or prosecution history.”) (emphasis added). Nonetheless, this disclosure is probative and is also consistent with arguments presented by both sides at the July 15, 2015 hearing. Construction is therefore appropriate to assist the finder of fact in understanding the disputed term. *See TQP Dev., LLC v. Merrill Lynch & Co., Inc.*, No. 2:08-CV-471, 2012 WL 1940849, at *2 (E.D. Tex. May 29,

2012) (Bryson, J.) ("The Court believes that some construction of the disputed claim language will assist the jury to understand the claims.").

The Court accordingly hereby construes **"continuity control function"** to mean **"a service provided in a home MS and that anchors CS and MS calls to enable call transfers."**

D. "indicative of [a / the] need to transfer the call" (Claims 1, 2, 13–16)

Genband Proposed Construction	**Metaswitch Proposed Construction**
No construction necessary	Indefinite

Dkt. No. 87 at 27; Dkt. No. 102 at 29.

Shortly before the start of the July 15, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning / Expressly reject indefiniteness argument."

At the July 15, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term.

(1) The Parties' Positions

Genband argues that "a person of ordinary skill in the art would understand that this phrase is directed to an event or other information that triggers the transfer of a call." Dkt. No. 87 at 27.

Metaswitch responds that "[w]hether some event is 'indicative of a need to transfer the call' is subjective, open to multiple interpretations, and not explained within the specification." Dkt. No. 102 at 29.

Genband replies that "almost the entirety of column 12 describes how the system determines whether to transfer a call." Dkt. No. 107 at 10.

(2) Analysis

The specification discloses, for example:

> Initiation of the call is effectively a request for a transfer of the call to user element 16M in the home MS 12 from user element 16C in the CS 14. The Invite will be received by the I/S-CSCF 28 (step 200), which will forward the Invite to the CCF 30 upon running the appropriate filter criteria (step 202). The CCF 30 will process the Invite and access the subscription profile associated with user element 16M. The subscription profile will indicate that a call initiated from user element 16M to the CCF 30 when user element 16C is engaged in a call is a request to transfer the call from user element 16C to user element 16M. The CCF 30 will recognize that user element 16C is engaged in a call and will initiate a transfer of the call from user element 16C in the CS 14 to user element 16M in the home MS 12 (step 204).

'006 Patent at 12:5–19; *see id.* at 9:29–44 ("The user element's subscription profile will also identify the associated user element 16C or 16M to or from which calls may be transferred. The CCF 30 will access the subscription profile to determine whether to initiate a call transfer upon receiving a call initiated from a user element 16C or 16M.").

In light of this disclosure in the specification, a person of ordinary skill in the art would understand that the "need" in the disputed term is not subjective but rather relates, for example, to a "request for a transfer." *See id.* at 12:5–19 (quoted above). To whatever extent Metaswitch maintains that the specification fails to explain adequately how a transfer request is recognized, such arguments perhaps may bear upon enablement but do not appear relevant to the present claim construction proceedings. *See Phillips*, 415 F.3d at 1327 ("[W]e have certainly not endorsed a regime in which validity analysis is a regular component of claim construction.").

The Court therefore expressly rejects Metaswitch's indefiniteness argument. No further construction is necessary.

The Court accordingly hereby construes **"indicative of [a / the] need to transfer the call"** to have its **plain meaning**.

E. "multimedia subsystem" (Claims 1, 3, 7, 13–15, 20)

Genband Proposed Construction	Metaswitch Proposed Construction
"subsystem that comprises or is associated with a packet switching network and that is capable of supporting a multimedia communication"	No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning. Plain meaning is "a subsystem comprising a packet switching network and that supports a multimedia communication."

Dkt. No. 87 at 28; Dkt. No. 102 at 30.

Genband has argued that "this term does not have a plain meaning and should be construed consistent with the intrinsic record" in the manner proposed by Genband. Dkt. No. 87 at 28.

Metaswitch has responded that "Genband's proposed construction . . . attempts to broaden the claimed subsystem to one that is only 'capable of' supporting a multimedia communication. It also inserts vague and confusing 'associated with' language into the claim that would not be helpful to the jury." Dkt. No. 102 at 30. Metaswitch has urged that "[t]he mere capability of the subsystem to support a multimedia communication is not enough." *Id.*

Genband has replied: "GENBAND does not believe that Metaswitch's plain meaning differs in any significant way from GENBAND's proposed construction and therefore adopts Metaswitch's plain meaning with the understanding that 'support[ing] a multimedia communication' requires that the subsystem 'is capable of supporting a multimedia communication,' as recited in GENBAND's originally proposed construction." Dkt. No. 107 at 10.

In their June 11, 2015 Joint Claim Construction Chart, the parties confirmed their agreement as follows: "No construction necessary, with the understanding that the subsystem is

'capable of supporting a multimedia communication.'" Dkt. No. 113, App'x A at 10. The parties' agreement in this regard is reflected in Appendix A to this Claim Construction Memorandum and Order.

XIII. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit.

Further, the Court finds a lack of sufficient corresponding structure as to the terms "switching means" and "means for bypassing" in Claims 1 and 7 of the '018 Patent.

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

SIGNED this 10th day of August, 2015.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE

APPENDIX A

Term	Parties' Agreement
"PSTN" ('024 Patent, Claims 1, 17 & 33)	"Public Switched Telephone Network"
"ESA mode" ('210 Patent, Claims 13 & 23)	"emergency stand alone mode"
"local switching system" ('252 Patent, Claims 1–3, 8, 9, 13, 17; '3210 Patent, Claims 1, 2, 4, 14, 15, 24)	"a system separated from the remote terminal that connects calls"
"packet signaling protocol" ('024 Patent, Claims 1, 17, 33)	"a signaling protocol for calls over a packet network"
"PSTN signaling protocol" ('024 Patent, Claims 1, 17)	"a signaling protocol for calls over a circuit-switched network (such as the PSTN or public-switched telephone network)"
"multimedia subsystem" ('006 Patent, Claims 1, 3, 7, 13–15, 20)	"No construction necessary, with the understanding that the subsystem is 'capable of supporting a multimedia communication.'"

Dkt. No. 71 at 1; Dkt. No. 102 at 10 & 24; Dkt. No. 113, App'x A at 10.