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

GENBAND USA LLC,	§	
	§	
v.	§	CASE NO. 2:14-CV-33-JRG-RSP
	§	
METASWITCH NETWORKS LTD., et al.	§	
	§	
	§	

CLAIM CONSTRUCTION
MEMORANDUM AND ORDER

On February 19, 2015, the Court held a hearing to determine the proper construction of the disputed claim terms in United States Patents Nos. 6,772,210; 6,791,971; 6,885,658; 6,934,279; 7,047,561; 7,184,427; 7,990,984; and 7,995,589. After considering the arguments made by the parties at the hearing and in the parties' claim construction briefing (Dkt. Nos. 108, 118, and 121),[1] the Court issues this Claim Construction Memorandum and Order.

[1] 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.

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I. BACKGROUND

Plaintiff brings suit alleging infringement of United States Patents Nos. 6,772,210 ("the '210 Patent"); 6,791,971 ("the '971 Patent"); 6,885,658 ("the '658 Patent"); 6,934,279 ("the '279 Patent"); 7,047,561 ("the '561 Patent"); 7,184,427 ("the '427 Patent"); 7,990,984 ("the '984 Patent"); and 7,995,589 ("the '589 Patent") (collectively, the "patents-in-suit").

In general, the patents-in-suit relate to telecommunications, such as communications over an Internet Protocol network, in particular Voice over Internet Protocol ("VoIP").

The Court herein addresses the patents-in-suit in the groupings used by the parties in their claim construction briefing.[2]

Shortly before the start of the February 19, 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*

[2] The present Claim Construction Memorandum and Order does not address additional terms that Defendants have identified but that have not been briefed by the parties. *See* Dkt. No. 118 at App'x A; *see also* Dkt. No. 126, Jan. 30, 2015 Materiality Statement; Dkt. No. 79, Defendants' Motion to Enter a Revised Model Order Focusing Patent Claims and Prior Art; Dkt. No. 97, Dec. 2, 2014 Order; Dkt. No. 101, Dec. 5, 2014 Pl.'s Notice of Election of Claims to Be Construed; Dkt. No. 102, Dec. 5, 2014 Defs.' Notice of Election of Claim Terms.

Corp., 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns 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 Corrected Joint Claim Construction and Prehearing Statement (Dkt. No. 99 at Ex. A) and their Joint Claim Construction Chart (Dkt. No. 125). The parties' agreements are set forth in Appendix A to this Claim Construction Memorandum and Order.

IV. DISPUTED TERMS IN U.S. PATENT NO. 6,772,210

The '210 Patent, titled "Method and Apparatus for Exchanging Communications Between Telephone Number Based Devices in an Internet Protocol Environment," issued on August 3, 2004, and bears a filing date of July 5, 2000. The original assignee of the '210 Patent was Nortel Networks Limited. The Abstract of the '210 Patent states:

> In an IP communication network, telephone number based services, such as Voice-over-IP (VoIP), Fax-over-IP, and IP Paging, are supported using network address translation. A gatekeeper determines a gateway for a connection between a first telephone number based device in a first network and a second telephone

> number based device in a second network based upon a telephone number for the second telephone number based device. The gateway is situated between the two networks, and enables communication between the two telephone number based devices by having a first address for the first telephone number based device for use in the first network, allocating a second address or address/port number pair for the first telephone number based device for use in the second network, and performing address translation on communication messages exchanged between the first telephone number based device and the second telephone number based device such that the first address for the first telephone number based device is used in the first network and the second address or address/port number pair for the first telephone number based device is used in the second network.

As a preliminary matter, the parties have cited testimony of the named inventors, but such testimony has not significantly affected the Court's analysis in this case. *See 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"); *but see Phillips*, 415 F.3d at 1317 ("Although we have emphasized the importance of intrinsic evidence in claim construction, we have also authorized district courts to rely on extrinsic evidence, which consists of all evidence external to the patent and prosecution history, including expert and *inventor testimony*, dictionaries, and learned treatises.") (emphasis added; citations and internal quotation marks omitted); *Voice Techs. Grp., Inc. v. VMC Sys., Inc.*, 164 F.3d 605, 615 (Fed. Cir. 1999) ("An inventor is a competent witness to explain the invention and what was intended to be conveyed by the specification and covered by the claims. The testimony of the inventor may also provide background information, including explanation of the problems that existed at the time the invention was made and the inventor's solution to these problems."). This finding applies to all of the patents-in-suit addressed by this Claim Construction Memorandum and Order.

A. "telephone number based device"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	Indefinite

Dkt. No. 108 at 1; Dkt. No. 118 at 1. The parties submit that this term appears in Claims 1-5, 7, 8, 9, 11, 13, 14, 15, 17, 18, 19, 21, 23, 24, 25, 27, 28, 29, 67, 68, 69, and 70 of the '210 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "device identified by a telephone number for communication services."

(1) The Parties' Positions

Plaintiff argues that "a person of ordinary skill in the art would understand the claim term to refer to a device that can be identified by a telephone number for receiving communication services." Dkt. No. 108 at 1.

Defendants respond that the patentee referred to "telephone number based devices" to avoid prior art disclosing general-purpose IP devices, such as personal computers connected to the Internet, but "[t]hey inexplicably failed, however, to explain or justify this distinction . . . ." Dkt. No. 118 at 1. Defendants conclude that "[b]ecause there is no well understood definition of what constitutes a 'telephone number based device' to a person of ordinary skill, and the intrinsic record does not provide one, this term cannot 'inform those skilled in the art about the scope of the invention with reasonable certainty' and is therefore indefinite." *Id.* at 2 (quoting *Nautilus*, 134 S. Ct. at 2129).

Plaintiff replies that "[t]he specification uses the term, consistent with its plain and ordinary meaning, to refer to devices that are identified by a telephone number to receive communication services." Dkt. No. 121 at 1.

At the February 19, 2015 hearing, Plaintiff stated that the Court's preliminary construction was acceptable to Plaintiff.

(2) Analysis

The specification discloses devices that are identified by a telephone number. *See, e.g.*, '210 Patent at 2:36 ("telephone number for the called device"), 4:49-50 ("phone number of the called VoIP device"), 5:32-33 ("phone number for the called VoIP device"), 6:39 ("phone number of the called VoIP device"), 6:62 ("phone number of the called VoIP device") & 9:32-36 ("phone number for the called VoIP device").

Plaintiff's expert opines that "[a] telephone number based device is a device that can be identified by a telephone number for receiving communication services," which Plaintiff's expert submits is the plain and ordinary meaning of the disputed term. Dkt. No. 108, Ex. 9, Nov. 12, 2014 Lipoff Opening Decl. at ¶ 41; *see id.* at ¶¶ 42-44. Defendants' expert responds that there is ambiguity as to whether the disputed term refers to devices that support telephone-number-based services, devices that are addressed *exclusively* by a telephone number, or devices that are *capable* of being addressed by a telephone number. *See* Dkt. No. 118, Ex. O, Nov. 11, 2014 Williams Decl. at ¶¶ 70-71; *see also id.*, Ex. P, Nov. 25, 2014 Williams Rebuttal Decl. at ¶¶ 15-16.

On balance, the meaning articulated by Plaintiff's expert is supported by, for example, the above-cited portions of the specification and is persuasive. *See, e.g.*, '210 Patent at 5:30-40. Defendants' expert's opinions fail to demonstrate that the disputed term renders the claim scope

not "reasonabl[y] certain[]." *Nautilus*, 134 S. Ct. at 2129; *see id.* at 2128 (a "modicum of uncertainty" does not render a claim indefinite). Instead, Defendants' arguments are primarily directed to issues of infringement, such as whether a particular number in a particular implementation is, in fact, a "telephone number." *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."). Defendants' indefiniteness argument is hereby expressly rejected.

Although Plaintiff proposes that no construction is necessary, "some construction of the disputed claim language will assist the jury to understand the claims." *TQP Dev., LLC v. Merrill Lynch & Co.*, No. 2:08-CV-471, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J.).

The Court therefore hereby construes **"telephone number based device"** to mean **"device identified by a telephone number for communication services."**

B. "allocat[ing] a second address . . . for use in the second network"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"assign[ing] a unique IP address to the first telephone number based device for use in the second network"

Dkt. No. 108 at 2; Dkt. No. 118 at 3. The parties submit that these terms appear in Claims 1, 2, 67, and 68 of the '210 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning; Defendants' proposed requirement of a 'unique' IP address is rejected."

(1) The Parties' Positions

Plaintiff argues that "Defendants simply repeat most of the words from the limitation in [their] construction" except that Defendants also "read into the claim a requirement that the second address be 'unique,'" which Plaintiff argues is "inconsistent with the specification of the '210 Patent." Dkt. No. 108 at 2.

Defendants respond that although "port numbers may be used to identify multiple devices mapped to the same address in one embodiment, that embodiment is plainly not recited in the claims." Dkt. No. 118 at 3-4. Defendants argue that "allocating" necessarily results in unique assignment of IP addresses. *Id.* at 4. Defendants also cite extrinsic dictionary definitions as well as testimony of the named inventor. *Id.* at 4-5.

Plaintiff replies that "Defendants improperly seek to limit the claims to one of th[]e disclosed embodiments by requiring the second address to be unique," and Plaintiff argues that not even the dictionary definitions cited by Defendants support such a limitation. Dkt. No. 121 at 1.

(2) Analysis

Claim 1 of the '210 Patent, for example, recites (emphasis added):

> 1. In an Internet Protocol (IP) communication system having a first network coupled to a second network through a gateway, wherein the first network and the second network are both IP networks, a method for exchanging communication messages between a first telephone number based device in the first network and a second telephone number based device in the second network, the first telephone number based device having a first address for use in the first network, the method comprising:

> *allocating a second address for the first telephone number based device for use in the second network*; and
>
> performing address translation on communication messages so that the first address for the first telephone number based device is used in the first network and the second address for the first telephone number based device is used in the second network.

Defendants' proposal of requiring a "unique" address is not supported by the claim language. Further, Defendants have not demonstrated that the intrinsic evidence contains any disclaimer in this regard, and the extrinsic dictionary definitions do not establish that "allocating" requires that what is allocated must be unique. *See* Dkt. No. 118, Ex. O, Nov. 11, 2014 Williams Decl. at ¶ 80.

Defendants' proposal of uniqueness also runs contrary to disclosures that although some embodiments may use a unique IP address, port numbers can be used to distinguish devices sharing a common IP address. *See* '210 Patent at 4:2-7 & 8:59-66; *see also id.* at 5:21-26, 5:41-57 & 6:14-21.

Although the specification discloses embodiments in which a unique IP address is allocated (*see, e.g.,* '210 Patent at 3:44-55 & 4:18-29), that feature of particular embodiments should not be imported into the claims. *See Comark*, 156 F.3d at 1187. Further, even the disclosure cited by Defendants explains that an IP address may be unique within a private network but not within the entire communications system:

> A VoIP device in the private network may be associated with a 'private' IP address that is unique within the private network but not within the entire communication system, for example, due to the common practice of reusing IP addresses.

Id. at 3:47-51.

The Court therefore hereby expressly rejects Defendants' 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."); *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 **"allocat[ing] a second address . . . for use in the second network"** to have its **plain meaning**.

C. "map[ping] the first address . . . to [a / the] second address"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
"associat[e/ing] the first address . . . with [a / the] second address"	"matching an IP address in the first network to a different and unique IP address in the second network"

Dkt. No. 108 at 3; Dkt. No. 118 at 5. The parties submit that these terms appear in Claims 3, 7, 11, 13, 21, and 23 of the '210 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "mapping an address in the first network to a different address in the second network."

(1) The Parties' Positions

The parties present similar arguments regarding "uniqueness" as addressed in the discussion of the "allocating . . ." term, above. Dkt. No. 108 at 3; Dkt. No. 118 at 5.

Plaintiff also argues that "mapping" refers to "associating" rather than "matching" because "the claims and specification . . . describe using an association between the first and second addresses to support translation between them." Dkt. No. 108 at 3; *see* '210 Patent at 3:61-4:7.

Defendants respond that the specification repeatedly refers to a "corresponding" address, that Defendants argue means a "one-to-one" "mapping." Dkt. No. 118 at 5. Defendants also cite extrinsic dictionary definitions of "map." *Id.* at 6; *see id.*, Ex. O, Nov. 11, 2014 Williams Decl. at ¶¶ 91-92.

Plaintiff's reply brief does not address this term. *See* Dkt. No. 121.

At the February 19, 2015 hearing, Plaintiff stated that it had no objection to the Court using the word "mapping" in the construction of this disputed term.

(2) Analysis

For substantially the same reasons discussed above as to the term "allocat[ing] a second address . . . for use in the second network," the Court hereby expressly rejects Defendants' proposed construction, in particular as to Defendants' proposal of requiring a "unique IP address."

Also, Plaintiff's proposal of the word "associating" would provide little if any guidance to the finder of fact. The Court therefore hereby expressly rejects Plaintiff's proposed construction.

Instead, the term "mapping" is sufficiently clear on its face, and no further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568 ("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*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207.

The Court therefore hereby construes **"map[ping] the first address . . . to [a / the] second address"** to mean **"mapping an address in the first network to a different address in the second network."**

V. DISPUTED TERMS IN U.S. PATENT NO. 7,047,561

The '561 Patent, titled "Firewall for Real-Time Internet Applications," issued on May 16, 2006, and bears a filing date of September 28, 2000. The original assignee of the '561 Patent was Nortel Networks Limited. The Abstract of the '561 Patent states:

> The present invention relates to a firewall for use in association with real-time Internet applications such as Voice over Internet Protocol (VoIP). The firewall applies an application proxy to the signaling and control channels and a packet filter to the bearer channels. One of the features of hybrid firewall is that the application proxy can instruct the packet filter as to which bearer channels to enable and disable for the duration of a real-time Internet application session. The hybrid firewall can also intelligently perform network address translation (NAT) on Internet protocol packets incoming and outgoing to the firewall.

A. "applying the Internet protocol packets associated with the signaling channel and control channel to [an / the] application proxy"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
"applying, for the duration of the real-time Internet application, the IP packets associated with the signaling channel and control channel to the application proxy"	"applying all the IP packets associated with the signaling channel and control channel to the application proxy"

Dkt. No. 108 at 4; Dkt. No. 118 at 6. The parties submit that these terms appear in Claims 1, 12, and 17 of the '561 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "applying, for the setup, duration and take down of

the real-time Internet application, all IP packets associated with the signaling channel and control channel to the application proxy."

(1) The Parties' Positions

"The parties' dispute is whether the recited applying operation must be performed during a real-time Internet application (as Plaintiff contends) or whether the applying operation must also be performed outside the context of a real-time Internet application (as Defendants contend)." Dkt. No. 108 at 4.

Plaintiff argues that the claims and the specification are explicitly directed to a real-time Internet application. *Id.* at 4. Plaintiff also argues that the prosecution history cited by Defendants does not compel otherwise because the patentee's statements, regarding handling of "all" packets, were in the context of a real-time Internet phone call. *Id.* at 4-5.

Defendants respond that the patentee's disclaimer is clear and appears twice in the prosecution history. Dkt. No. 118 at 6-7. Defendants conclude that "[o]ne of ordinary skill in the art reading the prosecution history would therefore understand that the applicants expressly disclaimed arrangements where less than all of the packets associated with the signaling channel and the control channel were processed by the application proxy." *Id.* at 7.

Plaintiff replies that "the reference to 'all' packets in connection with this statement [in the prosecution history] referred to packets received during a call." Dkt. No. 121 at 2.

At the February 19, 2015 hearing, Plaintiff stated that it agreed with the Court's preliminary construction.

(2) Analysis

Claim 1 of the '561 Patent, for example, recites (emphasis added):

> 1. *A firewall for Internet protocol packets carrying data for a real-time Internet application*, each of *said Internet protocol packets* being associated with any one

> of *a signaling channel*, *a control channel*, or a bearer channel of said real-time Internet application, the firewall comprising:
>
> an application proxy and a packet filter,
>
> the firewall *applying the Internet protocol packets associated with the signaling channel and the control channel to the application proxy*, and the firewall applying the Internet protocol packets associated with the bearer channel to the packet filter.

Claims 12 and 17 are method claims but include preambles that refer to a "real-time Internet protocol." *See* '561 Patent at 1:62-63 ("real-time Internet applications are based on real-time Internet protocols").

Because "the Internet Protocol packets" (as well as "the signaling channel" and "the control channel") in the disputed term have their antecedent basis in the preambles, the preambles are limiting, in particular as to the "real-time Internet application" or "real-time Internet protocol." *See Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808-09 (Fed. Cir. 2002); *see also Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003) ("When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.");

Moreover, the specification explicitly states: "The *present invention* relates to a firewall which is optimized for use with *real-time Internet applications* such as voice, fax, video or multimedia." '561 Patent at 2:21-23 (emphasis added); *see id.* at Fig. 5 (step 526).

During prosecution, the patentee stated that "all" packets associated with the signaling channel and the control channel are applied to the application proxy:

> Claim 1 recites "applying the Internet protocol packets associated with the signaling channel and the control channel to the application proxy . . . ." Implicit in this claim language is that *all* the packets associated with the signaling channel and the control channel are applied to the application proxy. In contrast, Baum's control processor 344 drops out of the call (as previously argued) and does not process the call take down or other signaling channel or control channel packets as recited in the claim.

Dkt. No. 108, Ex. 21, Mar. 24, 2005 Response to the Final Office Action Mailed January 27, 2005, at 3 (emphasis in original); *see id.*, Ex. 22, Jul. 27, 2005 Appeal Brief at 6 (similar).

The patentee thus referred to "all" packets in the context of real-time applications. *See, e.g.*, Dkt. No. 108, Ex. 21, Mar. 24, 2005 Response to the Final Office Action Mailed January 27, 2005, at 2 ("Each VoIP phone call has a signaling channel that is responsible for call set up, call take down, and other similar signaling functions. The present invention applies the application proxy firewall to the signaling channel at all stages of the call."); *id.*, Ex. 22, Jul. 27, 2005 Appeal Brief at 2 (similar). Nothing in the Notice of Allowability cited by Defendants compels otherwise. *See* Dkt. No. 118, Ex. B, Oct. 17, 2005 Reasons for Allowance at 2-6 (GENBAND2834-38).

The patentee therefore did not make any disclaimer in the manner urged by Defendants. *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); *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).

Nonetheless, the claim language, the specification, and the prosecution history all support reading the disputed term such that for the setup, duration, and take down of a real-time Internet application, *all* IP packets associated with the signaling channel and control channel are applied to the application proxy.

The Court therefore hereby construes **"applying the Internet protocol packets associated with the signaling channel and control channel to [an / the] application proxy"** to

mean **"applying, for the setup, duration, and take down of the real-time Internet application, all IP packets associated with the signaling channel and control channel to the application proxy."**

VI. DISPUTED TERMS IN U.S. PATENTS NO. 7,184,427 AND 7,990,984

The '427 Patent, titled "System and Method for Communicating Telecommunication Information from a Broadband Network to a Telecommunication Network," issued on February 27, 2007, and bears a filing date of November 28, 2000. The original assignee of the '427 Patent was GenBand Inc. The Abstract of the '427 Patent states:

> A system for communicating telecommunication information includes a memory, packetization modules, and a telecommunication interface module. The memory stores subscriber profiles associating each of several subscribers with a telecommunication interface. The packetization modules receive data packets from a broadband network and extract telecommunication information associated with a subscriber from the data packets. The telecommunication interface module communicates the telecommunication information to a telecommunication network using a telecommunication interface associated with the subscriber.

The '984 Patent is a continuation of the '427 Patent and bears the same title. The '984 Patent issued on August 2, 2001, and the original assignee was Genband US LLC.

A. "the [first and second data communication protocols / data communication protocol] includes any of Internet Protocol, Asynchronous Transfer Mode, and Frame Relay protocols"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"the [first and second data communication protocols / data communication protocol] capable of being supported include Internet Protocol, Asynchronous Transfer Mode, and Frame Relay protocols"

Dkt. No. 108 at 5; Dkt. No. 118 at 8. The parties submit that these terms appear in Claims 1, 13, 28, and 38 of the '427 Patent and Claims 1, 7, 9, 16, 17, and 20 of the '984 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning; Defendants' request to require utilization of all three protocols is rejected."

(1) The Parties' Positions

Plaintiff argues that the plain language of this term is clear and that "Defendants' construction is improper because it would change the meaning of the claim by requiring support for all three recited protocols rather than selected ones of the recited protocols." Dkt. No. 108 at 5-6. Plaintiff argues that Defendants thereby "improperly try to read 'any of' out of the claim limitation." *Id.* at 6.

Defendants respond that their proposed construction "embodies the intrinsic evidence, which consistently and repeatedly explains the alleged invention is capable of supporting all of the IP, ATM and FR protocols." Dkt. No. 118 at 8-9. Defendants also submit that their proposed construction "requires the claimed 'packetization modules' and 'receiving' steps, which receive data packets using the data communication protocols, be capable of supporting IP, ATM, and FR—not that the data communication protocol is all three simultaneously." *Id.* at 11.

Plaintiff replies that "[t]he passages of the specification cited by Defendants discuss support for 'several, alternative data communication protocols,' but none of those passages require support for all three of IP, ATM, and Frame Relay." Dkt. No. 121 at 3.

At the February 19, 2015 hearing, Defendants urged that Plaintiff has admitted in its briefing that the disputed term requires support for at least two of the specified protocols. *See* Dkt. No. 108 at 7; *see also* Dkt. No. 121 at 3 n.5. Plaintiff responded that multiple protocols are necessary only where required by the language of a particular claim.

(2) Analysis

Claim 1 of the '427 Patent, for example, recites (emphasis added):

> 1. A gateway for communicating telecommunication information, comprising:
>
> one or more packetization modules operable to receive first data packets from a first broadband network using a first data communications protocol and to extract first telecommunication information associated with a first subscriber from the first data packets, the packetization modules further operable to receive second data packets from a second broadband network using a second data communication protocol and to extract second telecommunication information associated with a second subscriber from the second data packets, wherein the first and second broadband networks include any of digital subscriber line, cable, and wireless platforms, wherein *the first and second data communication protocols includes any of Internet Protocol, Asynchronous Transfer Mode, and Frame Relay protocols*; and
>
> one or more telecommunication interface modules operable to communicate the first telecommunication information to a telecommunication network using a first telecommunication interface format associated with the first subscriber and to communicate the second telecommunication information to the telecommunication network using a second telecommunication interface format associated with the second subscriber, the first and second telecommunication interface formats including any of GR-303, TR-8, SS7, V5, ISDN, and unbundled analog lines.

The plain language of the claim thus requires merely that the data communication protocols must be selected from among Internet Protocol, Asynchronous Transfer Mode, and Frame Relay. The specification supports such a reading. *See* '427 Patent at 3:60-63 ("according to Internet Protocol (IP), Asynchronous Transfer Mode (ATM), Frame Relay, or any other suitable data communication protocol"); *see also* Dkt. No. 108, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶¶ 142-44. Further, Plaintiff acknowledges that particular claim language may require more than one protocol. *See* Dkt. No. 108 at 7; *see also* Dkt. No. 121 at 3 n.5.

The specification explains that supporting "several," alternative data communication protocols can be advantageous. *See* '427 Patent at 2:23-25 ("Rather than provide a single, technology-dependent solution, the present invention uses several, alternative

telecommunication, compression, and broadband technologies to couple a telecommunication network to a broadband network."), 10:54-11:59, 13:37-40 & 16:3-5.

Defendants have not, however, identified any definitive statements in the specification that would support their proposed construction. For example, Defendants have not established that the word "several" necessarily refers to more than two.

Defendants also urge that the prosecution history contains such a disclaimer, but on balance no such disclaimer is evident. *See Omega Eng'g*, 334 F.3d at 1324-26. Instead, the prosecution history is consistent with the above-discussed plain reading of the claim language. *See* Dkt. No. 108, Ex. 23, May 19, 2005 Response to Examiner's Action ('427 Patent) at 21-22 & 25 (GENBAND4937-38, 41) (pp. 23-24 & 27 of 28 of Ex. 23). In particular, nowhere did the patentee state that the phrase "any of" must be read to mean a capability as to "all of."

The Court therefore hereby expressly rejects Defendants' 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 [first and second data communication protocols / data communication protocol] includes any of Internet Protocol, Asynchronous Transfer Mode, and Frame Relay protocols"** to have its **plain meaning**.

B. "operable to communicate the [first / second] telecommunication information to a telecommunication network using a [first / second] [telecommunication interface format / telecommunication interface] associated with the [first / second] subscriber"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"operable to communicate the [first / second] telecommunication information to a telecommunication network using a [first / second] [telecommunication interface format / telecommunication interface] *designated for use* with the [first / second] subscriber"

Dkt. No. 108 at 7-8; Dkt. No. 118 at 11 (emphasis added). The parties submit that this term appears in Claims 1 and 12 of the '427 Patent and Claim 7 of the '984 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning; Defendants' proposal is rejected."

(1) The Parties' Positions

Plaintiff argues that "Defendants' proposed construction simply repeats most of the language from this limitation" except that "Defendants improperly try to rewrite the claim by changing 'associated with' to 'designated for use with.'" Dkt. No. 108 at 8. Plaintiff submits that Defendants' proposed phrase "designated for use with" does not appear in the patents at issue. *Id.*

Defendants respond that "[u]nder [Plaintiff's] proposal, the 'associated with' language in the claims could mean anything, while [Defendants'] construction clarifies the meaning of 'associated with' based on the intrinsic evidence." Dkt. No. 118 at 12.

Plaintiff replies that "Defendants rely on the specification to narrow the meaning of 'associated,' but the portions of the specification cited by Defendants use the verb 'associate' and never use the verb 'designate.'" Dkt. No. 121 at 4.

At the February 19, 2015 hearing, Defendants further urged that the disputed term requires using a previously stored subscriber profile.

(2) Analysis

Defendants have cited various disclosures in the specification regarding resources for use with subscribers. *See* '427 Patent at 9:3-8 ("Gateway 18 receives subscriber information indicating a combination of telecommunication interfaces 26, data compression algorithms, data communication protocols, and data links 28 that gateway 18 should use in servicing either an

individual subscriber or a group of subscribers"); *see also id.* at 4:5-18, 6:43-55, 12:17-49, 13:10-15, 18:4-30, 19:3-16 & 21:66-22:5; Dkt. No. 118, Ex. Q, Nov. 11, 2014 Madisetti Decl. at ¶¶ 80-82.

As Plaintiff notes, however, the specification discloses that subscribers can be grouped rather than treated individually. *See* '984 Patent at 4:43-53, 7:10-19, 9:32-41, 12:45-53 & 14:56-61.

On balance, Defendants have failed to adequately justify replacing the word "associated" with the phrase "designated for use." The Court therefore hereby expressly rejects Defendants' proposed construction. To whatever extent Defendants maintain that the disputed term requires use of a previously stored subscriber profile, Defendants' argument is hereby expressly rejected as lacking support in the intrinsic evidence.

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 **"operable to communicate the [first / second] telecommunication information to a telecommunication network using a [first / second] [telecommunication interface format / telecommunication interface] associated with the [first / second] subscriber"** to have its **plain meaning**.

C. "means for communicating the [first / second] telecommunication information to [a / the] telecommunication network using a [first / second] interface format associated with the [first / second] subscriber" and "means for receiving [first / second] data packets from a [first / second] broadband network using a [first / second] data communication protocol"

<table>
<tr><td colspan="2">"means for communicating the [first / second] telecommunication information to [a / the] telecommunication network using a [first / second] interface format associated with the [first / second] subscriber"</td></tr>
<tr><td>Plaintiff's Proposed Construction</td><td>Defendants' Proposed Construction</td></tr>
<tr><td>Function: communicating the [first / second] telecommunication information to [a / the] telecommunication network using a [first / second] interface format associated with the [first / second] subscriber.

Structure: telecommunication interface module and equivalents thereof.</td><td>Function: communicating the [first / second] telecommunication information to [a / the] telecommunication network using a [first / second] interface format associated with the [first / second] subscriber

Structure: indefinite; there is no corresponding structure disclosed in the specification</td></tr>
<tr><td colspan="2">"means for receiving [first / second] data packets from a [first / second] broadband network using a [first / second] data communication protocol"</td></tr>
<tr><td>Plaintiff's Proposed Construction</td><td>Defendants' Proposed Construction</td></tr>
<tr><td>Function: receiving [first / second] data packets from a [first / second] broadband network using a [first / second] data communication protocol.

Structure: network interface module and equivalents thereof.</td><td>Function: receiving [first / second] data packets from a [first / second] broadband network using a [first / second] data communication protocol

Structure: indefinite; there is no corresponding structure disclosed in the specification</td></tr>
</table>

Dkt. No. 108 at 9; Dkt. No. 118 at 13; Dkt. No. 125, App'x A at 15 & 18-19. The parties submit that the first of these disputed terms appears in Claim 20 of the '984 Patent and that the second of these disputed terms appears in Claims 17 and 20 of the '984 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction for the "means for communicating . . .": "Function: 'communicating the [first / second] telecommunication information to [a / the]

telecommunication network using a [first / second] interface format associated with the [first / second] subscriber' / Corresponding Structure: 'telecommunication interface module; and equivalents thereof.'"

The Court also provided the parties with the following preliminary construction for the "means for receiving . . .": "Function: 'receiving [first / second] data packets from a [first / second] broadband network using a [first / second] data communication protocol' / Corresponding Structure: 'network interface module; and equivalents thereof.'"

(1) The Parties' Positions

The parties agree that these are means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6, and the parties agree upon the claimed functions. Dkt. No. 108 at 9. The parties dispute whether the specification discloses sufficient corresponding structure. *Id.*

Plaintiff argues that the specification discloses "basic," "well understood" components. Dkt. No. 108 at 9.

Defendants respond that "the '984 Patent describes these modules [("telecommunication interface module" and "network interface module")] only in functional terms illustrating them as black boxes, but never once describing any particular structure that corresponds to their insides." Dkt. No. 118 at 13. Defendants argue that the disclosure that the modules "can be implemented on circuit boards connected to the backplane of a gateway," cited by Plaintiff (Dkt. No. 108 at 9), "is not a disclosure of the structure of the modules themselves." Dkt. No. 118 at 14.

Plaintiff replies that "the Federal Circuit has held the specification does not have to reference a specific structure but may reference 'a discrete class of . . . structures that perform known functions." Dkt. No. 121 at 4-5 (quoting *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1322 (Fed. Cir. 2004)).

At the February 19, 2015 hearing, the parties rested on their briefing and presented no oral argument as to these disputed terms.

(2) Analysis

Plaintiff's expert opines that "the plain and ordinary meaning of the term 'telecommunication interface modules' denotes structure to one of ordinary skill in the art." Dkt. No. 108, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶ 155.

Defendants' own expert, Dr. Vijay Madisetti, opines that "the term 'telecommunication interface' refers to 'an interface to a TDM switch of a telecommunication network that receives telecommunication information from a subscriber.' A person of ordinary skill at the time of the alleged invention would understand this construction to be consistent with the ordinary and customary meaning of the term 'telecommunication interface' within the context of the '427/'984 patents." Dkt. No. 118, Ex. Q, Nov. 11, 2014 Madisetti Decl. at ¶ 51.[3]

On balance, the "telecommunication interface module" and "network interface module" are sufficient corresponding structure because a person of ordinary skill in the art would recognize these interfaces as well-known classes of structures. *See Linear Tech.*, 379 F.3d at 1322 ("class of structures . . . identifiable by a person of ordinary skill in the art" is a sufficient corresponding structure). The *Bosch* case cited by Defendants is therefore distinguishable. *See Robert Bosch, LLC v. Snap-On, Inc.*, 769 F.3d 1094 (Fed. Cir. 2014). The Court therefore hereby expressly rejects Defendants' indefiniteness argument.

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

[3] Defendants have previously identified "telecommunication interface" as a disputed term in these patents. *See* Dkt. No. 99, Ex. B at 29-30; *see also* Dkt. No. 126 at 3-4.

Term	Construction
"means for communicating the [first / second] telecommunication information to [a / the] telecommunication network using a [first / second] interface format associated with the [first / second] subscriber"	Function: "communicating the [first / second] telecommunication information to [a / the] telecommunication network using a [first / second] interface format associated with the [first / second] subscriber" Structure: **"telecommunication interface module; and equivalents thereof"**
"means for receiving [first / second] data packets from a [first / second] broadband network using a [first / second] data communication protocol"	Function: "receiving [first / second] data packets from a [first / second] broadband network using a [first / second] data communication protocol" Structure: **"network interface module; and equivalents thereof"**

D. "means for decompressing the [first / second] telecommunication information using a [first / second] compression algorithm associated with the [first / second] subscriber"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Function: de-compressing the [first / second] telecommunication information using a [first / second] compression algorithm associated with the [first / second] subscriber. Structure: hardware and/or software capable of executing at least one of the following algorithms: G.711; G.722; G.723; G.728; G.729; as well as equivalents of such hardware and/or software.	Function: de-compressing the [first / second] telecommunication information using a [first / second] compression algorithm associated with the [first / second] subscriber Structure: indefinite; there is no corresponding structure disclosed in the specification

Dkt. No. 108 at 10; Dkt. No. 118 at 15; Dkt. No. 125, App'x A at 19-20. The parties submit that these terms appear in Claim 18 of the '984 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Function: 'de-compressing the [first / second] telecommunication information using a [first / second] compression algorithm associated with the [first / second] subscriber' / Corresponding Structure: 'hardware and/or software capable of executing at least one of the following algorithms: G.711, G.722, G.723, G.728, G.729; and equivalents thereof.'"

(1) The Parties' Positions

The parties agree that these are means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6, and the parties agree upon the claimed functions. Dkt. No. 108 at 10. The parties dispute whether the specification discloses sufficient corresponding structure. *Id.*

Plaintiff submits that Defendants fail to explain why the disclosed International Telecommunication Union ("ITU") algorithms (G.711, G.722, G.723, G.728, G.729) are insufficient. *Id.* at 10-11.

Defendants respond that "G.711, G.722, G.723, G.728 and G.729 are general standards recommendations that do not disclose the specific functionality at issue here." Dkt. No. 118 at 15.

Plaintiff replies that G.711, G.722, G.723, G.728, and G.729 are well-known compression algorithms. Dkt. No. 121 at 6.

At the February 19, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term.

(2) Analysis

"[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 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.").

"A disclosed structure is corresponding only if the specification or the prosecution history clearly links or associates that structure to the function recited in the claim." *Omega Eng'g*, 334 F.3d at 1321.

Here, the specification clearly links the claimed function with the algorithms identified by Plaintiff. *See* '427 Patent at 11:16-22 & 15:59-62; '984 Patent at 11:43-49 & 16:14-17. This amounts to a sufficient disclosure of corresponding structure. *See* Dkt. No. 108, Ex. 9, Nov. 12, 2014 Lipoff Opening Decl. at ¶¶ 69-72; *see also id.*, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶¶ 198-200; *id.*, Ex. 11, Nov. 11, 2014 Madisetti Decl. at ¶ 101; *AllVoice Computing PLC v. Nuance Commc'ns, Inc.*, 504 F.3d 1236, 1245 (Fed. Cir. 2007) ("[A]lgorithms in the specification need only disclose adequate defining structure to render the bounds of the claim understandable to one of ordinary skill in the art.").

The Court therefore hereby finds that for the **"means for decompressing the [first / second] telecommunication information using a [first / second] compression algorithm associated with the [first / second] subscriber,"** the function is **"de-compressing the [first / second] telecommunication information using a [first / second] compression algorithm associated with the [first / second] subscriber,"** and the corresponding structure is **"hardware**

and/or software capable of executing at least one of the following algorithms: G.711, G.722, G.723, G.728, G.729; and equivalents thereof."

E. "means for extracting [first / second] telecommunication information associated with a [first / second] subscriber from the [first / second] data packets"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Function: extracting [first / second] telecommunication information associated with a [first / second] subscriber from the [first / second] data packets. Structure: hardware and/or software that performs the following algorithm: • process the [first / second] data packets according to a data communication protocol; • extract the [first / second] telecommunication information from the [first / second] data packets; and • identify the [first / second] subscriber associated with the [first / second] telecommunication information; as well as equivalents of such hardware and/or software.	Function: extracting [first / second] telecommunication information associated with a [first / second] subscriber from the [first / second] data packets Structure: indefinite; there is no corresponding structure disclosed in the specification

Dkt. No. 108 at 11; Dkt. No. 118 at 16; Dkt. No. 125, App'x A at 16-17. The parties submit that this term appears in Claims 17 and 20 of the '984 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Function: 'extracting [first / second] telecommunication information associated with a [first / second] subscriber from the [first / second] data packets' / Corresponding Structure: gateway 18."

(1) The Parties' Positions

The parties agree upon the claimed functions. Dkt. No. 108 at 11. The parties dispute whether the specification discloses sufficient corresponding structure. *Id.*

Plaintiff argues that the steps it has identified are correct because, "[c]ontrary to the opinion of Defendants' expert, the recited function is 'extracting first telecommunication information associated with a first subscriber from the first data packets' and not simply 'extracting first telecommunication information from the first data packets.'" Dkt. No. 108 at 12.

Defendants respond that "[Plaintiff's] 'algorithm' merely parrots the claim language." Dkt. No. 118 at 16.

Plaintiff replies:

> Defendants are incorrect that the "process" and "identify" steps of the disclosed algorithm are not required to perform the recited function. Resp. at 16. As Plaintiff's expert explained, a packet must be processed according to its protocol to identify the location of the telecommunication information stored within the packet and then that identified information can be removed. Ex. 15 at ¶¶ 203-04. Neither Defendants nor their expert disagreed with this explanation of how information is extracted from a packet. Identifying the subscriber is also part of the algorithm because the recited telecommunication information is "associated with a [first/second] subscriber."

Dkt. No. 121 at 5.

At the February 19, 2015 hearing, the parties rested on their briefing and presented no oral argument as to this disputed term, except Plaintiff requested that the Court's preliminary construction should be modified from "gateway 18" to "gateway 18; and equivalents thereof."

(2) Analysis

The specification discloses:

> To communicate telecommunication information from BSC 72 to switch 16, *gateway 18* receives data packets from data link 28 associated with the subscriber, *extracts telecommunication information from the data packets according to the data communication protocol associated with the subscriber*, decompresses the telecommunication information according to the data compression algorithm associated with the subscriber, and communicates the telecommunication information to switch 16 using interface 26 associated with the subscriber.

'984 Patent at 10:3-13 (emphasis added).

On balance, the structure "clearly link[ed] or associate[d]" with the claimed function is the "gateway 18" that is discussed throughout the specification, in particular as quoted above. *Omega Eng'g*, 334 F.3d at 1321.

The Court therefore hereby finds that for the **"means for extracting [first / second] telecommunication information associated with a [first / second] subscriber from the [first / second] data packets,"** the function is **"extracting [first / second] telecommunication information associated with a [first / second] subscriber from the [first / second] data packets,"** and the corresponding structure is **"gateway 18; and equivalents thereof."**

VII. DISPUTED TERMS IN U.S. PATENTS NO. 6,934,279 AND 7,995,589

The '279 Patent, titled "Controlling Voice Communications over a Data Network," issued on August 23, 2005, and bears a filing date of March 13, 2000. The original assignee was Nortel Networks Limited. The Abstract of the '279 Patent states:

> A method and apparatus of communicating over a data network includes providing a user interface in a control system for call control and to display information relating to a call session. The control system communicates one or more control messages (e.g., Session Initiation Protocol or SIP messages) over the data network to establish a call session with a remote device in response to receipt of a request through the user interface. One or more commands are transmitted to a voice device associated with the control system to establish the call session between the voice device and the remote device over the data network. A Real-Time Protocol (RTP) link may be established between the voice device and the remote device.

The '589 Patent is a continuation of the '279 Patent and bears the same title. The '589 Patent issued on August 9, 2011, and the original assignee was Nortel Networks Limited. The '279 Patent and the '589 Patent share a common specification (*see* Dkt. No. 118 at 18), so the Court cites only the '279 Patent herein unless otherwise indicated.

A. "telephony device"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
"device capable of telephony"	"device capable of telephony that identifies the control system and is commanded by the control system"

Dkt. No. 108 at 12; Dkt. No. 118 at 17. The parties submit that this term appears in Claims 1, 6, 7, 9, 21, and 22 of the '589 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "device capable of telephony."

(1) The Parties' Positions

Plaintiff argues that "Defendants have not identified any special definition of 'telephony device' or disclaimer so as to justify further limiting the plain meaning of this term." Dkt. No. 108 at 12. Plaintiff submits that "although the term 'command' refers to the messages sent to the telephony device, that term does not mean that all those messages are actually commanding the telephony device." *Id.* at 13. Further, Plaintiff argues, "Defendants simply speculate that if the control system commands the telephony device, then 'it is important' that the telephony device identify the control system." *Id.* (quoting *id.*, Ex. 12, Nov. 11, 2014 Madisetti '279/'589 Decl. at ¶ 56).

Defendants respond that "[e]very embodiment teaches that the telephony device i[]dentifies the control system, while the remote system does not." Dkt. No. 118 at 17-19 (citing, *e.g.*, '279 Patent at 7:15-22 & 9:3-6). Defendants urge that "[Plaintiff] has not—and cannot—articulate any differences for telephony device and remote device under its constructions[,] [which] eviscerate any meaning of the telephony and remote devices." *Id.* at 20-21.

Plaintiff replies that the functionality cited by Defendants is described with the permissive words "may" and "can," and "[f]urther, the specification makes clear that this functionality is merely 'in accordance with an embodiment.'" Dkt. No. 121 at 6 (citing '279 Patent at 3:9-10 & 7:15-22).

(2) Analysis

Claim 1 of the '589 Patent recites (emphasis added):

> 1. A method of communicating over a data network, comprising:
>
> providing a user interface in a control system for establishing a call session in which audio and video data are communicated;
>
> communicating, by the control system, one or more control messages over the data network to establish a call session with a remote device in response to receipt of a request through the user interface; and
>
> transmitting one or more commands to a *telephony device* connected to the data network and associated with the control system to establish the call session between the *telephony device* and the remote device over the data network to exchange the audio data and video data between the *telephony device* and the remote device.

The claim language is clear on its face, and Defendants' proposed construction would improperly import limitations from preferred embodiments into the seemingly generic term "telephony device," specifically as to "identif[ying] the control system" and being "commanded by the control system." As Plaintiff has emphasized, the above-quoted claim separately recites the use of commands. Further, the specification discloses, for example, that the control system may transmit commands to the telephony device merely to notify it of status. *See* '279 Patent at 5:38-42.

Although the specification discloses embodiments that are perhaps consistent with Defendants' proposed construction, the embodiment features identified by Defendants should not be imported into the construction of "telephony device." *See Comark*, 156 F.3d at 1187; *see also Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012) ("It is . . . not

enough that the only embodiments, or all of the embodiments, contain a particular limitation."). The Court therefore hereby expressly rejects Defendants' proposed construction.

The Court therefore adopts the agreed-upon portion of the parties' proposed constructions and hereby construes **"telephony device"** to mean **"device capable of telephony."**

B. "remote device"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"a device that does not identify the [control system / controller / article] and is not commanded by the [control system / controller / article]"

Dkt. No. 108 at 14; Dkt. No. 118 at 17. The parties submit that this term appears in Claims 1, 9, 12, 16, 25, 32, 37, and 38 of the '279 Patent and Claims 1, 7, 11, 15, 19, 22, 23, and 24 of the '589 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning; Defendants' proposal is rejected."

(1) The Parties' Positions

Plaintiff argues that "the patent uses different terms 'control messages' and 'commands' to distinguish between the messages sent to the remote device and the messages sent to the telephony device, but that different terminology does not indicate a difference in the substance of the messages." Dkt. No. 108 at 14. Plaintiff submits, for example, that the specification discloses that "control messages" can include Session Initiation Protocol ("SIP") messages, and "[o]ne of ordinary skill would understand that SIP messages may include various commands, which are used to establish call sessions." *Id.* (citing *id.*, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶ 254). Finally, Plaintiff argues that Defendants' proposal of "a device that does not identify the control system" would exclude a disclosed embodiment: "Because every SIP message must

include a source and destination address, the remote device must identify the control system by its destination address to send a SIP message to the control system." Dkt. No. 108 at 15 (citing *id.*, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶ 254).

Defendants argue this disputed term together with the term "telephony device," addressed above. *See* Dkt. No. 118 at 17-21. Defendants submit that a "remote device" is not a "telephony device," and "[t]he specification does not teach any remote devices paired with the claimed control system nor any remote devices that identify the control system." *Id.* at 19.

Plaintiff's reply brief addresses this term together with the term "telephony device," addressed above. *See* Dkt. No. 121 at 6-7.

(2) Analysis

Because Defendants' proposed construction for "remote device" is premised on Defendants' proposed construction for "telephony device," which the Court has rejected, above, the Court hereby expressly rejects Defendants' proposed construction for "remote device." Alternatively and in addition, Defendants' proposed construction would improperly limit the "remote device" to features of preferred embodiments and is therefore rejected. *See Comark*, 156 F.3d at 1187; *see also Thorner*, 669 F.3d at 1366. In particular, whereas Defendants appear to assume that a "remote device" must be a different type of device than a "telephony device," a better reading of the intrinsic evidence is that "remote" refers not to the nature of the device but rather to its location in a network relative to the telephony device.

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 **"remote device"** to have its **plain meaning**.

C. "control system"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"a computer or other stand-alone system that provides call control for identified devices"

Dkt. No. 108 at 15; Dkt. No. 118 at 21. The parties submit that this term appears in Claims 1, 7, 10, 12, 15, 17, 18, and 19 of the '279 Patent and Claims 1, 6, 8, 11, 14, 21, and 23 of the '589 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning; Defendants' proposal is rejected."

(1) The Parties' Positions

Plaintiff argues that the specification discloses a control system that is *not* a "stand-alone system," and Plaintiff argues that the doctrine of claim differentiation demonstrates that identifying devices is not a limitation of the claimed "control system." Dkt. No. 108 at 15-16.

Defendants respond that "[t]he patentees 'plainly and repeatedly distinguished' computers with 'powerful processing capabilities' that provided built-in telephone voice capabilities from the claimed[] control system." Dkt. No. 118 at 22. Defendants also explain that "[t]he control system may be part of a larger system, however, it stands separate from the network telephone." *Id.* at 23.

Plaintiff replies that "the claims do not require . . . a [stand-alone] configuration, and the specification describes alternative configurations where the control system and telephone operate as a single 'telephony system 31.'" Dkt. No. 121 at 7 (citing '279 Patent at 5:28-29). Plaintiff also argues that "[n]othing in the prosecution history mandates that the control system must be a 'stand-alone' system." Dkt. No. 121 at 7.

(2) Analysis

Claims 1 and 7 of the '279 Patent recite (emphasis added):

> 1. A method of communicating over a data network, comprising:
>
> providing a user interface in a *control system* for establishing call sessions;
>
> communicating, by the *control system*, one or more control messages over the data network to establish a call session with a remote device in response to receipt of a request through the user interface; and
>
> transmitting one or more commands to a voice device connected to the data network and associated with the *control system* to establish the call session between the voice device and the remote device over the data network.
>
> * * *
>
> 7. The method of claim 1, further comprising storing, in the *control system*, an identifier of the voice device.

The doctrine of claim differentiation thus weighs against requiring that the "control system" must store an identifier of a voice device. *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."). Although the specification discloses embodiments in which "a call control system 32 or 36 can identify the network telephone it is controlling" ('279 Patent at 7:19-20), such a feature of preferred embodiments should not be imported into the construction of "control system."

Also, the specification discloses that "[t]he call control system 32 and the network telephone 30 may be collectively referred to as a telephony system 31." '279 Patent at 5:28-29. This disclosure weighs at least somewhat against Defendants' proposal that the "control system" must be "stand-alone."

The remaining dispute, thus, is whether the patentee disclaimed claim scope during prosecution so as to require separation between the control system and telephony devices.

During prosecution of the '589 Patent, the patentee stated:

> If the "telephone" or "telephony endpoint" in column 44 of Thornton is considered to be the "telephony device" of claim 1, then a user dialing a call number at such a telephony endpoint is contradictory to the subject matter of claim 1, which recites that one or more control messages are communicated over the data network to establish a call session in response to receipt of a request through the user interface of the control system (not the telephony device).

Dkt. No. 188, Ex. D, Aug. 11, 2009 Pre-Appeal Brief Request for Review at 3 (GENBAND7685) (p. 25 of 27 of Ex. D); *see id.*, Jan. 5, 2009 Reply to Office Action Mailed October 3, 2008, at 10-11 (GENBAND7655-56) (pp. 20-21 of 27 of Ex. D).

> During prosecution of the '249 Patent, the patentee stated:
>
> As conceded in the Office Action, Thornton also does not disclose transmitting one or more commands to a voice device connected to the data network and associated with the control system to establish the call session between the voice device and the remote device over the data network.
>
> Instead, the Office Action relied upon Jenness as disclosing this element. Applicant respectfully submits that Jenness also fails to disclose or suggest the transmitting act of claim 1. The transmitting act includes *transmitting one or more commands to a voice device* connected to the data network and associated with the control system (which communicates one or more control messages over the data network to establish the call session with the network device in response to receipt of a request through the user interface). There is no voice device associated with such a control system disclosed or suggested by Jenness. Therefore, even if the combination of Thornton and Jenness is proper, the hypothetical combination of references fails to teach or suggest all the elements of claim 1.

Id., Dec. 11, 2003 Reply to Office Action Dated September 11, 2003, at 9 (GENBAND2495) (p. 11 of 27 of Ex. D) (emphasis added).

On balance, this prosecution history contains no definitive statements that would warrant finding a disclaimer as proposed by Defendants. *See Omega*, 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); *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). For example, the requirement of data network communication does not necessarily demand that the control system be "stand-alone."

The Court therefore hereby expressly rejects Defendants' 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. In particular, the meaning of this disputed term is made clear by surrounding claim language.

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

VIII. DISPUTED TERMS IN U.S. PATENT NO. 6,791,971

The '971 Patent, titled "Method and Apparatus for Providing a Communications Service, for Communication and for Extending Packet Network Functionality," issued on September 14, 2004, and bears a priority date of March 10, 1999. The original assignee of the '971 Patent was Nortel Networks Limited. The Abstract of the '971 Patent states:

> Methods, apparatus, systems, media and signals for providing a communications service are disclosed. One method involves receiving, on a packet network, a message requesting the communications service, and producing a query relating to implementation of the communications service for receipt by a Service Control Function (SCF), in response to the message, to cause the communications service to be implemented. Another method involves receiving, on a packet network, a query relating to implementation of a communications service, and producing a response to the query to cause the communications service to be implemented.

A. "Service Control Function" (SCF), "Service Control Point" (SCP), "Service Switching Function" (SSF), and "Service Switching Point" (SSP)

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
SCF means "functionality capable of controlling another entity's provision of communications services" SCP means "physical entity that implements a Service Control Function" SSF means "the set of processes that provide the communication path for interaction between a call control function and a Service Control Function" SSP means "physical entity that implements the service switching function"	SCF/SCP/SSF/SSP "as defined by Intelligent Network and Advanced Intelligent Network standards ITU-T Q.1200-1236, Q[.]1290-1400, Q.1551-1601, and equivalent Telcordia standards"

Dkt. No. 108 at 16-17; Dkt. No. 118 at 24. The parties submit that "Service Control Function" appears in Claims 46, 57, 62, 65, 70, 72, 77, 80, 90, 91, and 92, "Service Control Point" appears in Claims 59, 60, 61, 74, 75, and 76, "Service Switching Function" appears in Claims 18, 19, 22, 25, 33, 40, 41, and 42, and "Service Switching Point" appears in Claim 26.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary constructions: "Service Control Function" means "the application of service logic to control functional entities in providing intelligent network services"; "Service Control Point" means "a physical entity in the intelligent network that implements a service control function"; "Service Switching Function" means "the set of processes that provide the communication path for interaction between a call control function and a service control function"; and "Service Switching Point" means "the physical entity that implements the service switching function."

(1) The Parties' Positions

Plaintiff argues that although "both parties look to the Intelligent Networking standards for guidance on the meaning of the claim terms at issue here," Defendants overlook the glossary provided by those standards and instead "simply cite to over *thirty* standard specifications in their entireties, without providing any clarity as to how those voluminous documents bound the claim terms." Dkt. No. 108 at 17 (footnote omitted). Plaintiff also argues that its proposed constructions are supported by the "LeBlanc" patent (United States Patent No. 5,570,412, attached to Plaintiff's opening brief as Exhibit 25), which is cited by the '971 Patent. *Id.* at 18-19.

Defendants respond that "[Plaintiff's] oversimplification guts the key purpose of the IN standards, which offer hundreds of pages of detailed instructions carefully defining SCF/SCP/SSF/SSP to enable those skilled in the art to design Intelligent Networks that interoperate." Dkt. No. 118 at 25; *see, e.g.,* '971 Patent at 3:53-60. Defendants conclude:

> Any perceived burden of applying the ITU standards to the accused products is a problem of [Plaintiff's] own making. [Plaintiff] chose to assert these terms, which the patentees amended during prosecution to expressly add SCF/SCP/SSF/SSP to overcome prior art (Ex. U, ¶¶ 62-72). [Plaintiff] fails to cite any case law that rejects the correct construction simply to reduce a plaintiff's infringement analysis.

Dkt. No. 118 at 25.

Plaintiff replies that "[a]lthough Defendants criticize the glossary definitions provided by the same standards they identify, they provide no analysis of what, if anything, is missing from those definitions." Dkt. No. 121 at 8. Plaintiff argues that Defendants' proposals "are equivalent to handing two voluminous books (ITU-T standards and their Telcordia equivalents) to the jury, and forcing them to determine a proper construction." *Id.*

At the February 19, 2015 hearing, Plaintiff stated that the Court's preliminary constructions were acceptable to Plaintiff. Defendants responded that the glossary definitions cited by Plaintiff do not provide enough information for compliance with the standards that contain these disputed terms. Plaintiff replied that the claims do not refer to the standards, and Plaintiff noted that the standards cited by Defendants include 3800 pages of documentation.

(2) Analysis

ITU-T Recommendation Q.12904, titled "Glossary of Terms Used in the Definition of Intelligent Networks," defines the disputed terms as follows:

> Service Control Function (SCF): The application of service logic to control functional entities in providing intelligent network services.
>
> * * *
>
> Service Control Point (SCP): A physical entity in the intelligent network that implements a service control function.
>
> * * *
>
> Service Switching Function (SSF): The set of processes that provide the communication path for interaction between a call control function and a service control function.
>
> * * *
>
> Service Switching Point (SSP): The physical entity that implements the service switching function.

Dkt. No. 108, Ex. 24, at 10 & 12 (GENBAND8852 & 54); *see id.* at 1 (GENBAND8843) ("This Recommendation provides a glossary of terms and definitions which have been studied for application in the documentation of intelligent networks.").

Providing the finder of fact with the ITU standards as a whole would fail to adequately construe the disputed terms, particularly given that the ITU standards include a glossary. The Court therefore hereby construes these disputed terms as set forth in the following chart:

Term	Construction
"Service Control Function" (SCF):	**"the application of service logic to control functional entities in providing intelligent network services"**
"Service Control Point" (SCP):	**"a physical entity in the intelligent network that implements a service control function"**
"Service Switching Function" (SSF):	**"the set of processes that provide the communication path for interaction between a call control function and a service control function"**
"Service Switching Point" (SSP):	**"the physical entity that implements the service switching function"**

B. "means for receiving on an IP network, a query relating to implementation of a communications service"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Function: receiving, on an IP network, a query relating to implementation of a communications service Structure: Input/Output unit and equivalents thereof	Function: receiving, on an IP network, a query relating to implementation of a communications service Structure: the SCP-IP as defined by Figure 3 of the '971 patent

Dkt. No. 108 at 20; Dkt. No. 125, App'x A at 28. The parties submit that this term appears in Claim 43 of the '971 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Function: 'receiving, on an IP network, a query relating to implementation of a communications service' / Corresponding Structure: 'input/output (I/O) unit 94; and equivalents thereof.'"

(1) The Parties' Positions

The parties agree that this is a means-plus-function term governed by 35 U.S.C. § 112, ¶ 6, and the parties agree upon the claimed function. Dkt. No. 108 at 19.

Plaintiff argues that whereas the disclosure of "I/O unit 94" is disclosed as performing the claimed function, Defendants' proposal incorporates other structures in Figure 3 that are not necessary to perform the claimed function. *Id.* at 20-21.

Defendants respond that "[Defendants'] structures are the only detailed structures provided for the SCF-IP and SSF-IP." Dkt. No. 118 at 25-26.

Plaintiff replies that Defendants' proposed structures "ensnare structure beyond that necessary to perform the claimed function." Dkt. No. 121 at 8.

At the February 19, 2015 hearing, the parties did not address this disputed term.

(2) Analysis

The specification discloses that "I/O unit 94 acts as a receiver for receiving, on the packet network, a query relating to implementation of a communications service." '971 Patent at 5:38-40; *see id.* at 4:21-22 ("packet network 28 includes an Internet Protocol (IP) network 46") & 10:1-6 ("a query relating to implementation of a communications service is received on the *IP network* at the I/O unit 94") (emphasis added); *see also id.* at 5:30-32 ("input/output (I/O) unit 94").

Thus, the "input/output (I/O) unit 94" is the structure clearly linked to the claimed function. The Court rejects Defendants' argument that additional structure is necessary to create an operable device. *See Markem-Imaje Corp. v. Zipher Ltd.*, 657 F.3d 1293, 1301 (Fed. Cir. 2011) ("That a device will only operate if certain elements are included is not grounds to incorporate those elements into the construction of the claims."); *but see Lexion Med., LLC v.*

Northgate Techs., Inc., 641 F.3d 1352, 1356 (Fed. Cir. 2011) ("This court prefers a claim interpretation that harmonizes the various elements of the claim to define a workable invention.").

The Court therefore hereby finds that for the **"means for receiving on an IP network, a query relating to implementation of a communications service,"** the claimed function is **"receiving, on an IP network, a query relating to implementation of a communications service,"** and the corresponding structure is **"input/output (I/O) unit 94; and equivalents thereof."**

C. "means for producing a response to said query to cause said communications service to be implemented"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Function: producing a response to said query to cause said communications service to be implemented Structure: processing unit implementing an SCP-IP routine, such as that shown in Figure 8 and equivalents thereof	Function: producing a response to said query to cause said communications service to be implemented Structure: the SCP-IP as defined by Figure 3 of the '971 patent

Dkt. No. 108 at 21; Dkt. No. 125, App'x A at 28-29. The parties submit that this term appears in Claim 43 of the '971 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Function: 'producing a response to said query to cause said communications service to be implemented' / Corresponding Structure: 'processing unit 90 configured to perform the SCP-IP routine 164 illustrated in Figure 8.'"

(1) The Parties' Positions

The parties agree that this is a means-plus-function term governed by 35 U.S.C. § 112, ¶ 6, and the parties agree upon the claimed function. Dkt. No. 108 at 19.

Plaintiff argues that "Defendants' structure is improper here again because the entire SCP-IP includes components not necessary for 'producing a response.'" *Id.* at 21.

Defendants respond that "[Defendants'] structures are the only detailed structures provided for the SCF-IP and SSF-IP." Dkt. No. 118 at 25-26.

Plaintiff replies that Defendants' proposed structures "ensnare structure beyond that necessary to perform the claimed function." Dkt. No. 121 at 8.

At the February 19, 2015 hearing, the parties did not address this disputed term.

(2) Analysis

On one hand, the specification discloses that "the SCP-IP routine is embodied in instruction codes stored in the program memory 92 of the *SCP-IP 60 shown in FIG. 3*." '971 Patent at 9:56-58 (emphasis added); *see id.* at 5:29-37.

On the other hand, the specification also discloses:

> Generally, referring to FIGS. 1, 3 and 8, when a query relating to implementation of a communications service is received on the IP network at the I/O unit 94, the *SCP-IP routine 164 programs the processing unit 90 to produce a response to the query, to cause the communications service to be implemented*.
>
> * * *
>
> Upon locating the routing number, block 168 [in Figure 8] *directs the processing unit 90 to produce a response* including the routing number located at block 166 [in Figure 8] for implementing the toll-free call, and to control the I/O unit 94 to communicate the response to the SSF which sent the query.

Id. at 10:1-6 & 10:20-24 (emphasis added); *see id.* at Fig. 8.

On balance, the structure "clearly link[ed] or associate[d]" with the claimed function is not the SCP-IP as illustrated in Figure 3 of the '971 Patent but rather is the "processing unit 90" configured to perform the SCP-IP routine 164 illustrated in Figure 8. *Omega Eng'g*, 334 F.3d at 1321; *see WMS Gaming*, 184 F.3d at 1349.

The Court therefore hereby finds that for the **"means for producing a response to said query to cause said communications service to be implemented,"** the function is **"producing a response to said query to cause said communications service to be implemented,"** and the corresponding structure is **"processing unit 90 configured to perform the SCP-IP routine 164 illustrated in Figure 8; and equivalents thereof."**

D. "means for receiving, on an IP network, a message requesting said communications service"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Function: receiving, on an IP network, a message requesting said communications service Structure: Input/Output unit and equivalents thereof	Function: receiving, on an IP network, a message requesting said communications service Structure: the MGC [(Media Gateway Controller)], as defined by Figure 2 of the '971 Patent

Dkt. No. 108 at 22; Dkt. No. 125, App'x A at 29. The parties submit that this term appears in Claim 91 of the '971 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Function: 'receiving, on an IP network, a message requesting said communications service' / Corresponding Structure: 'input/output (I/O) unit 74; and equivalents thereof.'"

(1) The Parties' Positions

The parties agree that this is a means-plus-function term governed by 35 U.S.C. § 112, ¶ 6, and the parties agree upon the claimed function. Dkt. No. 108 at 19.

Plaintiff argues that Defendants' proposal "incorporates structure beyond that necessary to perform the claimed function." *Id.* at 22.

Defendants respond that "[Defendants'] structures are the only detailed structures provided for the SCF-IP and SSF-IP." Dkt. No. 118 at 25-26.

Plaintiff replies by reiterating that Defendants' proposed structures "ensnare structure beyond that necessary to perform the claimed function." Dkt. No. 121 at 8.

At the February 19, 2015 hearing, the parties did not address this disputed term.

(2) Analysis

For substantially the same reasons discussed above as to the similar term "means for receiving on an IP network, a query relating to implementation of a communications service," the Court finds that the corresponding structure is "I/O unit 74." *See* '971 Patent at 5:20-22 ("the I/O unit 74 acts as a receiver for receiving, on the packet network, a message requesting a communications service").

The Court therefore hereby finds that for the **"means for receiving, on an IP network, a message requesting said communications service,"** the function is **"receiving, on an IP network, a message requesting said communications service,"** and the corresponding structure is **"input/output (I/O) unit 74; and equivalents thereof."**

E. "means for producing a query relating to implementation of said communications service for receipt by a Service Control Function (SCF), in response to said message, to cause said communications service to be implemented"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Function: producing a query relating to implementation of said communications service for receipt by a Service Control Function (SCF), in response to said message, to cause said communications service to be implemented Structure: processing unit programmed to establish a communications service on a packet network, and equivalents thereof	Function: producing a query relating to implementation of said communications service for receipt by a Service Control Function (SCF), in response to said message, to cause said communications service to be implemented Structure: the MGC [(Media Gateway Controller)], as defined by Figure 2 of the '971 Patent

Dkt. No. 108 at 22-23; Dkt. No. 125, App'x A at 29-30. The parties submit that this term appears in Claim 91 of the '971 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Function: 'producing a query relating to implementation of said communications service for receipt by a Service Control Function (SCF), in response to said message, to cause said communications service to be implemented' / Corresponding Structure: 'processing unit 70 configured to perform the MGC routine 150 illustrated in Figure 7; and equivalents thereof.'"

(1) The Parties' Positions

The parties agree that this is a means-plus-function term governed by 35 U.S.C. § 112, ¶ 6, and the parties agree upon the claimed functions. Dkt. No. 108 at 19.

Plaintiff argues that the Media Gateway Controller ("MGC") identified by Defendants includes more structure than necessary for performing the claimed function. *Id.* at 23.

Defendants respond that "[Defendants'] structures are the only detailed structures provided for the SCF-IP and SSF-IP." Dkt. No. 118 at 25-26.

Plaintiff replies by reiterating that Defendants' proposed structures "ensnare structure beyond that necessary to perform the claimed function." Dkt. No. 121 at 8.

At the February 19, 2015 hearing, the parties did not address this disputed term.

(2) Analysis

The specification discloses:

> Referring to FIGS. 1, 2 and 7, when a message requesting a communications service is received at the I/O unit 74 of the MGC [(Media Gateway Controller)], *the MGC routine 150 directs the processing unit 70 to produce a query relating to implementation of the communications service for receipt by a Service Control*

> *Function, in response to the message, to cause the communications service to be implemented.*

'971 Patent at 8:34-40 (emphasis added).

Thus, the structure "clearly link[ed] or associate[d]" with the claimed function is the "processing unit 70" programmed to perform an algorithm. *Omega Eng'g*, 334 F.3d at 1321; *see WMS Gaming*, 184 F.3d at 1349.

As for the algorithm, the specification discloses:

> For example, in response to receiving a call setup message requesting a toll-free call from a gatekeeper of the IP network 46, *the MGC routine 150 serves to build and transmit a query to a Service Control Point* which is preferably on the IP network 46 shown in FIG. 1, but which may alternatively be located elsewhere, such as on the PSTN 34 for example. Effectively, in this embodiment, the MGC is a network node programmed to establish a toll-free call on the packet network. Alternatively, the MGC routine may be varied such that the MGC acts as a network node programmed to establish an intelligent network (IN) service on the packet network. Such *variations would be apparent to one of ordinary skill in the art* upon reading this specification and are not considered to depart from the scope of the present invention.

'971 Patent at 8:41-55 (emphasis added).

Thus, the disclosed algorithm is MGC routine 150 illustrated in Figure 7 of the '971 Patent. *Id.*

Purported "variations [that] would be apparent to one of ordinary skill in the art upon reading this specification" (*id.*), however, are not expressly disclosed and therefore are not part of the corresponding structure. *See Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1334 (Fed. Cir. 2008) ("[T]h[e] language simply describes the function to be performed, not the algorithm by which it is performed. Aristocrat's real point is that devising an algorithm to perform that function would be within the capability of one of skill in the art, and therefore it was not necessary for the patent to designate any particular algorithm to perform the

claimed function. As we have noted above, however, that argument is contrary to this court's law.").

The Court therefore finds that for the **"means for producing a query relating to implementation of said communications service for receipt by a Service Control Function (SCF), in response to said message, to cause said communications service to be implemented,"** the function is **"producing a query relating to implementation of said communications service for receipt by a Service Control Function (SCF), in response to said message, to cause said communications service to be implemented,"** and the corresponding structure is **"processing unit 70 configured to perform the MGC routine 150 illustrated in Figure 7; and equivalents thereof."**

IX. DISPUTED TERMS IN U.S. PATENT NO. 6,885,658

The '658 Patent, titled "Method and Apparatus for Interworking Between Internet Protocol (IP) Telephony Protocols," issued on April 26, 2005, and bears a priority date of June 7, 1999. The original assignee of the '658 Patent was Nortel Networks Limited. The Abstract of the '658 Patent states:

> A method and an apparatus for interworking between internet protocol (IP) telephony protocols includes a call server. The call server includes a first protocol agent for communicating with a first protocol device according to a first protocol. A second protocol agent communicates with a second protocol device according to a second protocol. An interworking agent provides functions usable by the first and second protocol agents to communicate with each other according to a third protocol. The third protocol is a superset of functions provided by the first and second protocols.

A. "a superset of functions provided by the first and second IP telephony protocols"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
"one or more functions provided by both the first and second IP telephony protocols"	"a set that contains all of the functions provided by the first and second IP telephony protocols"

Dkt. No. 108 at 23-24; Dkt. No. 118 at 26. The parties submit that this term appears in Claim 1 of the '658 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "a set that includes one or more functions provided by both the first and second IP telephony protocols."

(1) The Parties' Positions

Plaintiff argues that "Defendants improperly try to limit Claim 1 to a 'complete superset,'" which Plaintiff argues "is inconsistent with the claim language and would improperly exclude the preferred embodiment of the specification." Dkt. No. 108 at 24.

Defendants respond that "[Plaintiff's] proposed construction runs counter to the well-understood mathematical concept of a superset as a set that contains all of the objects in other sets—in this case, the sets of functions provided by the first and second IP telephony protocols." Dkt. No. 118 at 26; *see id.*, Ex. W, Nov. 14, 2014 Madisetti Decl. at ¶¶ 64-69.

Plaintiff replies that "[t]he specification describes different types of supersets, such as a 'reasonable superset' (which includes some but not all functions of the supported protocols) and a 'complete superset' (which includes all functions of the supported protocols)." Dkt. No. 121 at 9 (citing '658 Patent at 6:27, 6:36-37 & 9:2-6).

At the February 19, 2015 hearing, Defendants argued that because computer science necessarily involves mathematics, the mathematical definition of "superset" is relevant for construing the disputed term.

(2) Analysis

The disputed term appears in Claim 1 of the '658 Patent, and for comparison Defendants have cited Claim 34 of the '658 Patent. Claims 1 and 34 recite (emphasis added):

1. A call server comprising:

(a) a fi[r]st protocol agent for communicating with a first internet protocol (IP) telephony device according to a first IP telephony protocol;

(b) a second protocol agent for communicating with a second IP telephony device according to a second IP telephony protocol; and

(c) an interworking agent for providing functions usable by the first and second protocol agents to communicate with each other according to a third protocol, the functions provided by the third protocol being *a superset of functions provided by the first and second IP telephony protocols*, said interworking agent further adapted to determine that a first parameter associated with the first IP telephony protocol does not map to the second IP telephony protocol and communicating first parameter to the second protocol agent without alteration.

* * *

34. A computer readable medium having software stored thereon, said software comprising;

a fi[r]st protocol agent for communicating with a first internet protocol (IP) telephony device according to a first IP telephony protocol;

a second protocol agent for communicating with a second internet protocol telephony device according to a second IP telephony protocol, wherein said second IP telephony protocol is distinct from said first IP telephony protocol;

a third protocol agent for communicating with a third internet protocol telephony device according to a third IP telephony protocol, wherein said third IP telephony protocol is distinct from said first and second IP telephony protocols; and

an interworking protocol adapted to represent *a partial superset of messaging capabilities of said first, second, and third IP telephony protocols* such that messages received in any of said first, second, or third IP telephony protocols from a first IP device are converted to said interworking protocol and then translated into a different one of said first, second, or third IP telephony protocols for transmission to a second IP device.

On one hand, "different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope." *Seachange Int'l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368 (Fed. Cir. 2005) (internal citations and markings omitted). Further, in some instances, "[t]he mere fact that there is an alternative embodiment disclosed in the asserted patent that is not encompassed by our claim construction does not outweigh the language of the claim, especially when the court's construction is supported by the intrinsic evidence. This is

especially true where . . . other unasserted claims in the parent patent cover the excluded embodiments." *August Tech. Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1285 (Fed. Cir. 2011) (citation and internal quotation marks omitted).

On the other hand, "superset" and "partial superset" can be readily distinguished from one another by interpreting the term "superset" to encompass *both* partial supersets *and* complete supersets (wherein a "complete" superset includes *all* functions provided by the first and second IP telephony protocols and a "partial" superset includes some but not all of the functions).

The specification supports such a reading by contrasting a "complete superset" with a "reasonable superset." '658 Patent at 6:25-28, 6:35-37 & 9:3-7 ("[T]he agent interworking protocol represents a reasonable superset of the agent protocols sufficient to achieve interworking. However, the agent interworking protocol is not a complete superset of the supported protocols."); *see Phillips*, 415 F.3d at 1314 ("the claim in this case refers to 'steel baffles,' which strongly implies that the term 'baffles' does not inherently mean objects made of steel"). Further, the specification explains that supporting all functions is not necessary. *See* '658 Patent at 6:28-32 ("Designing an interworking protocol that supports all of the capabilities of all of the supported protocols is an unnecessarily burdensome task since some capabilities are rarely used or are only useful when communicating between devices that support the particular protocol."). Instead, the "superset" requires merely at least one function that appears in both the first protocol and the second protocol.

As for the prosecution history, Defendants argue that the patentee "disclaimed [Plaintiff's] proposed construction of a superset as containing only 'one or more functions.'" Dkt. No. 118 at 28 (citing *id.*, Ex. F, Dec. 19, 2003 Response to the Office Action Mailed 26 September 2003, at 9 (GENBAND1630)). In arguing that the examiner failed to show where

in the cited reference a superset could be found, the patentee stated: "A rule set to govern translation does not necessarily have to be a superset of the functions provided by the first and second IP telephony protocols." *Id.* Contrary to Defendants' argument, this does not amount to a definitive statement requiring that a "superset" must include all the functions of the first and second protocol. *See Omega Eng'g*, 334 F.3d at 1324-26. As Plaintiff has explained, the patentee's "distinction was not between a complete superset and a partial superset, but rather that the prior art did not necessarily disclose *any* kind of superset of functions." Dkt. No. 121 at 9.

Finally, the extrinsic evidence submitted by the parties does not warrant departing from the patentee's above-discussed broad usage of the term "superset." *See, e.g.*, Dkt. No. 118, Ex. W, Nov. 14, 2014 Madisetti Decl. at ¶¶ 62-64 & 70.

The Court therefore hereby construes **"a superset of functions provided by the first and second IP telephony protocols"** to mean **"a set that includes one or more functions provided by both the first and second IP telephony protocols."**

B. "protocol"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"a set of rules, procedures, or conventions relating to data handling between two devices"[4]

Dkt. No. 108 at 25; Dkt. No. 125, App'x A at 31. The parties submit that this term appears in Claims 1-13, 15, 19, 20, and 27-33 of the '658 Patent.

[4] Defendants previously proposed: "a specific set of rules, procedures, or conventions relating to the format of data transmitted between two devices"; or "a specific set of rules, procedures, or conventions relating to the format, timing, order, and other features of data and messages transmitted between two devices." Dkt. No. 118 at 28.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "a set of rules, procedures, or conventions relating to data handling."

(1) The Parties' Positions

Plaintiff submits that "'protocol' is a well-known term of art," and Plaintiff argues that Defendants' proposal of limiting the term to "format of data" and to communication between two devices is inconsistent with the specification. Dkt. No. 108 at 25. Plaintiff also argues that the prosecution history cited by Defendants contains no clear and unambiguous disclaimer. *Id.*

Defendants respond that they are "open to construing 'protocol' as 'a specific set of rules, procedures, or conventions relating to the format, timing, order, and other features of data and messages transmitted between two devices'—a compromise that addresses [Plaintiff's] concerns and is based on elements that [Plaintiff] admits would have been understood by those of skill in the art." Dkt. No. 118 at 28. Defendants also submit that their proposed construction "can encompass logical devices and entities such as the protocol agents communicating with one another within a single physical device." *Id.*

Plaintiff replies that "[a] protocol is a set of rules, procedures, or conventions relating to data handling, but there is no requirement that a protocol specify any particular characteristic of data handling (such as format, timing or order)." Dkt. No. 121 at 9-10.

At the February 19, 2015 hearing, Defendants reiterated that their proposal of "between two devices" is not meant to require two physically separate devices but rather could refer to communication between two "agents" or "entities." Defendants nonetheless maintained that a "protocol" must refer to communication between two distinct things.

(2) Analysis

As noted above, the parties are in substantive agreement that a protocol is a set of rules, procedures, or conventions relating to data handling. Dkt. No. 121 at 9-10; Dkt. No. 118 at 28; Dkt. No. 125, App'x A at 31. The specification and the prosecution history are consistent with such a construction and do not require communication "between two devices." *See* '658 Patent at 5:16-23 & 7:15-23; *see also* Dkt. No. 108, Ex. 27, Dec. 19, 2003 Response to the Office Action Mailed 26 September 2003, at 9. Also, Plaintiff's expert's opinion that "protocol" has a broad, well-known meaning is credible in light of the apparently broad usage in the intrinsic record. *See* Dkt. No. 108, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶¶ 370-75. Defendants' proposal of "between two devices" is therefore hereby expressly rejected.

The Court accordingly hereby construes **"protocol"** to mean **"a set of rules, procedures, or conventions relating to data handling."**

C. "communicating first parameter to the second protocol agent without alteration"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"communicating the first parameter from the first protocol agent to the second protocol agent without converting to and from the third protocol"

Dkt. No. 108 at 26; Dkt. No. 118 at 29. The parties submit that this term appears in Claim 1 of the '658 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning."

(1) The Parties' Positions

Plaintiff argues that "Defendants' proposed construction simply repeats most of the language from this limitation," except "Defendants improperly try to rewrite the claim by

changing 'without alteration' to 'without converting to and from the third protocol.'" Dkt. No. 108 at 26. Plaintiff also argues that the prosecution history cited by Defendants contains no clear and unambiguous disclaimer. *Id.* at 27.

Defendants respond that "the '658 Patent's only disclosure of what it means to communicate a parameter 'without alteration' is by communicating the parameter without converting it to and from the interworking protocol (*i.e.*, the claimed third protocol)." Dkt. No. 118 at 29; *see id.*, Ex. W, Nov. 14, 2014 Madisetti Decl. at ¶¶ 74-76.

Plaintiff replies by reiterating that "[n]o special definition or disclaimer justifies departing from the plain, ordinary meaning of the claim." Dkt. No. 121 at 10.

At the February 19, 2015 hearing, the parties did not address this disputed term.

(2) Analysis

Claim 1 of the '658 Patent recites (emphasis added):

> 1. A call server comprising:
> (a) a fi[r]st protocol agent for communicating with a first internet protocol (IP) telephony device according to a first IP telephony protocol;
> (b) a second protocol agent for communicating with a second IP telephony device according to a second IP telephony protocol; and
> (c) an interworking agent for providing functions usable by the first and second protocol agents to communicate with each other according to a third protocol, the functions provided by the third protocol being a superset of functions provided by the first and second IP telephony protocols, said interworking agent further adapted to determine that a first parameter associated with the first IP telephony protocol does not map to the second IP telephony protocol and *communicating first parameter to the second protocol agent without alteration*.

Plaintiff's expert opines:

> 391. One of ordinary skill in the art would recognize that there are multiple ways to transmit the parameter without alteration, and in particular, one of ordinary skill in the art would understand that the third protocol could be used to transmit the parameter without alteration. For example, the value of the parameter can remain unchanged despite the conversion of the message containing that parameter from the first protocol to the third protocol and from the third protocol

> to the second protocol. Nothing in the patent suggests that conversion of a message to and from the third protocol must involve altering the parameters in that message. To the contrary, the language of claims suggests the opposite: "transmitting the *parameter* without alteration."
>
> 392. Dr. Madisetti also attempts to support his incorrect interpretation of these claim terms by referencing examples in the specification that discuss sending messages from one agent to another without using an intermediary protocol. Madisetti '658 Op. Decl. at ¶ 76. However, these citations merely state (consistent with my example above) that whether messages can be communicated with or without conversion to an intermediate protocol is irrelevant to whether parameters in those messages will or will not be altered. None of the citations that Dr. Madisetti references discuss transmitting parameters without alteration. They deal with communicating messages and describe examples of embodiments where messages can be tunneled or sent without modification. *See* '658 Patent at 9:33-34 and 9:46-49.

Dkt. No. 108, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶¶ 391-92 (emphasis added). The Court finds Plaintiff's expert's opinion credible and consistent with the intrinsic evidence, in particular as to the opinion that the value of a parameter can remain unchanged despite the conversion of a message containing that parameter from the first protocol to the third protocol and from the third protocol to the second protocol. *Id.* at ¶ 391.

Further, the prosecution history cited by Defendants contains no definitive statement requiring communication without converting to and from a third protocol. *See* Dkt. No. 118, Ex. F, May 10, 2004 Response to the Final Office Action Mailed March 10, 2004, at 12 (GENBAND1648) (p. 18 of 29 of Ex. F) ("It is unclear how avoiding protocol differences (i.e., determining whether the AS2 connects to an AS that can support H.323 to avoid protocol differences) supports a motivation to send a portion of the call without performing translation."); *see also id.*, Ex. W, Nov. 14, 2014 Madisetti Decl. at ¶¶ 77-79.

Defendants properly note that the specification discloses:

> [C]ertain agent protocols can contain messages or parameters which do not map to any other agent protocols, but provide added value for a call between two devices of the same type. In this case, the agent interworking protocol *preferably*

> supports tunneling of the native protocol message. As used herein, tunneling refers to transferring the native protocol message from one protocol agent to another protocol agent *without converting to and from the agent interworking protocol*. The agent receiving the native protocol message can inspect the message, and if the agent understands the message, process the message accordingly.

'658 Patent at 9:6-16 (emphasis added); *see id.* at 9:58-10:3. Nonetheless, Defendants have failed to justify importing such a limitation from a preferred embodiment. *See Comark*, 156 F.3d at 1187.

The Court therefore hereby expressly rejects Defendants' 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 **"communicating first parameter to the second protocol agent without alteration"** to have its **plain meaning**.

D. "adapted to determine that a first parameter associated with the first IP telephony protocol does not map to the second IP telephony protocol"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary; this claim language does not require construction and should be accorded its plain and ordinary meaning.	"adapted to determine that a first parameter associated with the first IP telephony protocol does not have a match in the second IP telephony protocol"

Dkt. No. 108 at 27; Dkt. No. 118 at 30. The parties submit that this term appears in Claim 1 of the '658 Patent.

Shortly before the start of the February 19, 2015 hearing, the Court provided the parties with the following preliminary construction: "adapted to determine that a first parameter associated with the first IP telephony protocol does not have a corresponding parameter in the second IP telephony protocol."

(1) The Parties' Positions

Plaintiff argues that "[t]he claim term 'map' has a more general meaning that encompass[es] general associations." Dkt. No. 108 at 27; *see id.*, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶ 385.

Defendants respond that "[Plaintiff] attempts to read the well understood term 'map' so broadly as to encompass any type of 'general association,'" which Defendants submit would render the claim indefinite. Dkt. No. 118 at 30. Defendants also argue that "[Plaintiff] relies solely on portions of the '658 Patent describing the results of exemplary message translations, not the underlying mapping of parameters that go into generating those results." *Id.*

Plaintiff replies, in full, as follows:

> Defendants seek to replace the word "map" with "match," but neither the patent nor the file history uses the term "match." The dictionary definitions cited by Defendants do not even define "map" as "match." Ex. 15 at ¶¶ 383-85. Rather, Defendants' own dictionary confirms what the specification teaches: "map" is used in accordance with its plain and ordinary meaning (i.e., to associate). *Id.* Thus, Defendants' attempt to rewrite the claim should be rejected. *GE Lighting*, 750 F.3d at 1309.

Dkt. No. 121 at 10.

At the February 19, 2015 hearing, the parties did not address this disputed term.

(2) Analysis

Claim 1 of the '658 Patent recites (emphasis added):

> 1. A call server comprising:
>
> (a) a fi[r]st protocol agent for communicating with a first internet protocol (IP) telephony device according to a first IP telephony protocol;
>
> (b) a second protocol agent for communicating with a second IP telephony device according to a second IP telephony protocol; and
>
> (c) an interworking agent for providing functions usable by the first and second protocol agents to communicate with each other according to a third protocol, the functions provided by the third protocol being a superset of functions provided by the first and second IP telephony protocols, said interworking agent further *adapted to determine that a first parameter associated*

with the first IP telephony protocol does not map to the second IP telephony protocol and communicating first parameter to the second protocol agent without alteration.

Defendants' proposal of a "match" potentially connotes that the parameters must be identical. Because no such requirement is apparent from the intrinsic evidence, the Court rejects Defendants' proposed construction.

Nonetheless, the specification consistently frames "mapping" in the context of a parameter in a first protocol having a corresponding parameter in a second protocol. *See* '658 Patent at 9:1-17, 9:24-30, 9:56-10:3, 11:34-39, 12:28-31 & 13:62-65; *see also* Dkt. No. 118, Ex. W, Nov. 14, 2014 Madisetti Decl. at ¶¶ 71-73. The passages cited by Plaintiff do not undermine this consistent context. *See* '658 Patent at 14:35-51, 16:48-54 & 18:45-64.

The extrinsic dictionary definition cited by Plaintiff does not compel finding otherwise. *See* Dkt. No. 108, Ex. 15, Nov. 25, 2014 Lipoff Rebuttal Decl. at ¶ 384 (citing *id.*, Ex. 10, Nov. 11, 2014 Williams Decl. at ¶ 92 ("[T]he Oxford English Dictionary (2000) defines the verb 'map' to mean 'associate each element of (a set) with an element of another set.'")); *see also Phillips*, 415 F.3d at 1321 ("[H]eavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.").

The Court therefore hereby construes **"adapted to determine that a first parameter associated with the first IP telephony protocol does not map to the second IP telephony protocol"** to mean **"adapted to determine that a first parameter associated with the first IP telephony protocol does not have a corresponding parameter in the second IP telephony protocol."**

X. CONCLUSION

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

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 1st day of April, 2015.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE

APPENDIX A

Term	Parties' Agreement
"first data communication protocol" '427 Patent, Claims 1, 12, 13, and 21 '984 Patent, Claims 1, 5, 7, 9, 16, 17, and 20	"data communication protocol of a first type"
"second data communication protocol" '427 Patent, Claims 1, 12, 13, and 21 '984 Patent, Claims 1, 7, 9, 16, 17, and 20	"data communication protocol of a second type"
"first broadband network" '427 Patent, Claims 1, 12, 13, and 21 '984 Patent, Claims 1, 7, 9, 16, 17, and 20	"broadband network of a first type"
"second broadband network" '427 Patent, Claims 1, 12, 13, and 21 '984 Patent, Claims 1, 7, 9, 16, 17, and 20	"broadband network of a second type"
"first telecommunication interface format" '427 Patent, Claim 1 '984 Patent, Claim 7	"telecommunication interface of a first type"
"second telecommunication interface format" '427 Patent, Claim 1 '984 Patent, Claim 7	"telecommunication interface of a second type"
"first interface" '427 Patent, Claim 21	"interface of a first type"
"second interface" '427 Patent, Claim 21	"interface of a second type"

"first interface format" '427 Patent, Claim 13 '984 Patent, Claims 16 and 20	"interface format of a first type"
"second interface format" '427 Patent, Claim 13 '984 Patent, Claims 16 and 20	"interface format of a second type"
"originating call half functions" '658 Patent, Claim 8	"functions associated with the originating side of a call (the side that initiated the call)"
"terminating call half functions" '658 Patent, Claim 8	"functions associated with the terminating side of a call (the side that received the call)"
"the first network" '210 Patent, Claims 1, 4, 5, 8, 9, 10, 11, 20, 21, 30, 67, and 68	"a first Internet protocol network"
"the second network" '210 Patent, Claims 1, 2, 4, 5, 6, 8, 9, 10, 11, 16, 20, 21, 22, 26, 30, and 67	"a second Internet protocol network"
"IP" '210 Patent, Claims 1, 11, 21, and 67	"Internet Protocol"
"channel" '561 Patent, Claims 1, 6, 7, 8, 12, 13, 14, 15, 17, 18, 19, and 20	"stream of packets"
"NAT" '561 Patent, Claims 7, 8, 9, 14, 15, 16, 17, 19, 20, and 21	"Network Address Translation"

"Internet Protocol (IP) Service Control Function (SCF-IP)" '971 Patent, Claims 1, 21, 43, and 44	"a Service Control Function capable of directly communicating with a device on an IP network"
"Internet Protocol (IP) Service Switching Function (SSF-IP)" '971 Patent, Claims 46, 70, 91, and 92	"a Service Switching Function capable of directly communicating with a device on an IP network"

Dkt. No. 99 at Ex. A; *see* Dkt. No. 125 at App'x A.