

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division

STRAIGHT PATH IP GROUP, INC.,)	
)	
Plaintiff,)	
v.)	Civil Action No. 1:13-cv-932 (AJT/IDD)
)	
BANDWIDTH.COM, INC., <i>et al.</i> ,)	
)	
Defendants.)	

MEMORANDUM OPINION AND ORDER CONSTRUING CLAIMS

On January 16, 2014, the Court held a claim construction hearing with respect to certain claim language of U.S. Patent Numbers 6,513,066 (“the ’066 patent”) and 6,701,365 (“the ’365 patent”). Upon consideration of the parties’ briefs setting forth their proposed constructions and their presentations at the claim construction hearing, the Court rules as follows with respect to the disputed terms of the ’006 and ’365 patents.

I. INTRODUCTION

On January 28, 2003, the Patent and Trademark Office (“PTO”) issued the ’066 patent, entitled “Establishing a Point-to-Point Internet Communication.” On March 2, 2004, the PTO issued the ’365 patent, entitled “Point-to-Point Internet Protocol.” The patented invention purports to provide a solution to a problem associated with internet communication between devices, specifically, that such communication generally requires knowledge of the devices’ respective “addresses,” typically internet protocol (“IP”) addresses, but those addresses may not be fixed. *See* ’066 patent at 1:32-2:3; ’365 patent at 1:28-63. During prosecution of the ’365 patent, the patentee compared this problem to that of “trying to call someone whose telephone number changes after each call.” Straight Path IP Group’s *Markman* Brief, Ex. 7 at 4.

The invention comprises two alternative protocols for establishing point-to-point communications. The first uses a “connection server” to provide one “processing unit” with the

IP address of a second processing unit, while the second exchanges the IP addresses via email, without the use of a connection server. *See* '066 patent at 2:7-37; '365 patent at 1:66-2:28. This case exclusively involves the first protocol that utilizes a “connection server,” one of the primary terms to be construed.

As disclosed in claim 1 of the '066 patent, the first protocol consists of: 1) “storing in a database a respective Internet Protocol (IP) address of a set of processing units that have an on-line status with respect to the Internet”; 2) transmitting a query from the first processing unit to a connection server to determine the on-line status of a second processing unit”; and 3) “retrieving the IP address of the second unit from the database using the connection server, in response to the determination of a positive on-line status of the second processing unit, for establishing a point-to-point communication link between the first and second processing units through the Internet.” The '365 patent has an identical specification but its claims cover a “computer program product,” “computer data signal” and “computer system” for performing steps similar to those set out in the '066 patent.¹

At this stage in the proceedings, the construction of four terms remains in dispute:²

¹ The '365 patent also uses somewhat different terminology than the '066 patent. Relevant for this case is that the '365 patent uses the term “process” instead of “processing unit” and the term “network protocol address” instead of “IP address.” Defendants represented at the *Markman* hearing that an IP address is a type of network protocol address.

² The parties initially disputed the meaning of ten terms found in claims 1 through 3 and 6 through 8 of the '066 patent and claims 1 and 3 of the '365 patent. However, only Defendant Bandwidth.com, Inc., which has been dismissed from the case, disputed the meaning of two of the terms, “using the connection server” and “database.” Thus, those terms no longer need to be construed. At the *Markman* hearing, the remaining defendants conceded that four other terms, “Internet,” “point-to-point Internet communication,” “point-to-point communications over the Internet,” and “point-to-point communication link between the first and second processing units through the Internet,” do not need to be construed.

- (a) “processing unit,”
- (b) “process,”
- (c) “point-to-point”/“point-to-point communication,”³ and
- (c) “connection server.”

II. STANDARD

The construction or interpretation of a claim is a question of law. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996). The words of the claim “are generally given their ordinary and customary meaning,” that is, the meaning they would have “to a person of ordinary skill in the art in question at the time of the invention.”

Phillips v. AWH Corp., 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (citation omitted).

“Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* at 1313. Thus, in interpreting claim terms, “the court should look first to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification, and, if in evidence, the prosecution history.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). However, the court may also consider extrinsic evidence, including, for example, treatises, dictionaries, and expert testimony. *Phillips*, 415 F.3d at 1317-18.

“If the claim language is clear on its face, then [the Court’s] consideration of the rest of the intrinsic evidence is restricted to determining if a deviation from the clear language of the

³ The term “point-to-point,” as used in the ’066 and ’365 patents, was construed in an earlier case filed in the Norfolk Division of this District. *See Innovative Commc’ns Tech., Inc. (“ICTI”) v. Vivox, Inc.*, Nos. 2:12-cv-7 & 2:12-cv-9, 2012 WL 5331573 (E.D. Va. Oct. 26, 2012). That case settled before a final adjudication on the merits.

claims is specified.” *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001). “If, however, the claim language is not clear on its face, then [the Court’s] consideration of the rest of the intrinsic evidence is directed to resolving, if possible, the lack of clarity.” *Id.* “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314.

A claim term should be interpreted more narrowly than its ordinary and customary meaning under only two circumstances: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). “To act as its own lexicographer, a patentee must clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning. It is not enough for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments, the patentee must clearly express an intent to redefine the term.” *Id.* (internal citation and quotation marks omitted). “The standard for disavowal of claim scope is similarly exacting.” *Id.* at 1366. “The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002).

Title 35 U.S.C. § 112, ¶ 2 requires that every patent’s specification “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor . . . regards as the invention.” A claim that fails to satisfy this particularity requirement

is invalid for indefiniteness. “The primary purpose of the definiteness requirement is to ensure that the claims are written in such a way that they give notice to the public of the extent of the legal protection afforded by the patent, so that interested members of the public, *e.g.*, competitors of the patent owner, can determine whether or not they infringe.” *All Dental Prodx, LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 779-80 (Fed. Cir. 2002).

“In the face of an allegation of indefiniteness, general principles of claim construction apply.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1348 (Fed. Cir. 2005). “Only claims not amenable to construction or insolubly ambiguous are indefinite.” *Source Search Tech., LLC v. LendingTree, LLC*, 588 F.3d 1063, 1076 (Fed. Cir. 2009) (internal quotation marks omitted). Patents are presumed valid, and an alleged infringer asserting that a claim term is indefinite must prove “by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area.” *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249-50 (Fed. Cir. 2008).

III. CLAIMS

A. “processing unit”

The term “processing unit” is found in claims 1 through 3 and 6 through 8 of the ’066 patent. Straight Path contends that no construction is necessary as the term has a plain and ordinary meaning. The defendants contend that the term should be construed to mean “a user device.”

The defendants do not seem to dispute that the term “processing unit” has an ordinary and customary meaning that is readily apparent even to a layperson. *See Phillips*, 415 F.3d at 1314. They nonetheless contend that the term must be construed, although it is unclear to the

Court how their proposed construction differs from that ordinary and customary meaning. To the extent the defendants' proposed construction would limit the scope of the term "processing unit," that limitation is unsupported. While the specification frequently employs the term "user" in connection with the term "processing unit,"⁴ the patentee did not clearly disavow the ordinary and customary meaning of the term.⁵ See *Teleflex, Inc.*, 299 F.3d at 1325. The Court will therefore construe the term "processing unit" according to its ordinary and customary meaning, without further restrictions.

B. "process"

The term "process" is found in claims 1 and 3 of the '365 patent. Straight Path would construe the term as "a running instance of a computer program or application." The defendants propose as the appropriate construction "an addressable program running on a user device."⁶

The term "process" does not appear in the specification. However, in their respective claims, the '365 patent uses the term "process" in essentially the same manner in which the '066 patent uses the term "processing unit." Compare, e.g., '066 patent claim 1, with '365 patent

⁴ See, e.g., '066 patent at 5:67-6:4 ("The first user operating the first processing unit 12 is thus established in the database 34 as an active on-line party available for communication using the disclosed point-to-point Internet protocol.").

⁵ In their briefs and at the *Markman* hearing, the defendants argued that construction is necessary because the '066 patent requires that the processing units be "positioned at either ends of point-to-point communications." Defendants Bandwidth.com, Inc.'s and Vocalocity, Inc.'s Joint Opening Claim Construction Brief at 23. But the defendants have failed to explain how the specification or prosecution history supports this proposed limitation in any way that is not already apparent from the claims themselves, or how the term "user" connotes "endpoint."

⁶ Defendants originally seemed to argue that the term "process" is indefinite, and to propose the above construction only as an alternative in the event the Court decided to construe the term. At the *Markman* hearing, however, the defendants clarified that their position is not that the term cannot be construed, but that Straight Path's construction of "process" renders the term indefinite.

claim 3. Further, the parties seem to agree that a “process” is the running of a program on a processing unit, essentially the plaintiff’s proposed construction, and the Court finds that that construction reflects the ordinary and customary meaning of the term, when read in light of the claims. See ’365 patent claim 1 (claiming a “computer program product” for performing the relevant steps); *id.* claim 3 (claiming, in a “computer system,” a method for performing the relevant steps). The issue, then, is whether that ordinary and customary meaning should be restricted as defendants propose.

As discussed above, the Court rejects the defendants’ attempt to construe “processing unit” as “a user device,” and for the same reasons the Court rejects their attempt to insert the term “user” into the definition of “process.” The remaining question, then, is whether, as the defendants contend, “process” must be limited to an “addressable program.” The defendants explain that, based on the claims, a process “needs to be addressable by a network protocol address.” Defendants Bandwidth.com, Inc.’s and Vocalocity, Inc.’s Joint Opening Claim Construction Brief at 13. Based on this explanation, however, the limitation would seem to be redundant with the claims themselves. Moreover, to the extent the limitation would narrow the term, the defendants have not pointed to any clear disclaimer of the full scope of the claim language. Finally, the Court rejects the defendants’ argument that Straight Path’s construction, which simply reflects the ordinary and customary meaning of the term, is “insolubly ambiguous.” See *Source Search Tech., LLC*, 588 F.3d at 1076.⁷

Accordingly, the Court will construe the term “process,” as used in claims 1 and 3 of the ’365 patent, as “a running instance of a computer program or application.”

⁷ Further, even if the term were ambiguous, the Court fails to see how Defendants’ proposed limitations would remedy any ambiguity.

C. “point-to-point” and “point-to-point communication”⁸

The term “point-to-point . . . communication” is found in claims 1 through 3 and 6 through 8 of the ’066 patent and claims 1 and 3 of the ’365 patent. Straight Path proposes the construction of “point-to-point” adopted in *ICTI*, viz., “communications between two processes over a computer network that are not intermediated by a connection server.” See *ICTI*, 2012 WL 5331573, at *10. The defendants propose the construction “communication between two user processes, established by one of the processes using the network protocol address of the other process, that is not intermediated by a connection server.”⁹ Thus, the parties agree that “point-to-point communication” should be construed as communication between two “processes” that is not intermediated by a “connection server,” a construction the Court finds consistent with the claims and the specification. See generally *ICTI*, 2012 WL 5331573, at *7-*8. The issue, then, is whether the term should be further limited, as defendants propose, by inserting the word “user” before “processes” and indicating that communication is “established by one of the processes using the network protocol address of the other process.” Embedded in this issue is whether the Court should defer to, and on that basis adopt, the Court’s construction in *ICTI*.

Straight Path contends that, unless the defendants can show that the Court’s construction in *ICTI* is incorrect as a matter of law, this Court is bound to follow that claim construction,

⁸ In the patents, the term “point-to-point” always appears in connection with the term “communication,” sometimes with the term “Internet” in between. The Court will therefore refer to the terms “point-to-point” and “point to point communication” collectively as “point-to-point . . . communication” or “point-to-point communication.”

⁹ Defendant Vocalocity originally proposed this construction, while Telesphere proposed an identical construction except that it used the term “client” instead of the term “user.” See Defendant Telesphere Networks Ltd.’s Opening Claim Construction Brief at 4. Telesphere subsequently indicated that it supports Vocalocity’s proposed construction. See Joint Claim Construction Statement Ex. A. The Court’s analysis would apply equally to Telesphere’s original proposed construction.

which, according to Straight Path, effectively rejected Defendants' proposed limitations here.¹⁰ See Straight Path IP Group's *Markman* Brief at 9 (citing *DE Tech., Inc. v. ISHOPUSA, Inc.*, 826 F. Supp. 2d 937, 941 (W.D. Va. 2011) ("[A]bsent a showing by DE that the court's original construction of a disputed term was incorrect as a matter of law, the court will apply its prior *Markman* rulings in the instant action.")). But in *DE Technologies*, on which Defendants rely, the defendants sought to preclude the *plaintiff* from relitigating terms the court had construed in a previous suit the plaintiff initiated. Here, by contrast, Straight Path attempts to give preclusive effect to terms construed in its favor in a case in which none of the defendants participated. Thus, the Court finds it appropriate to independently assess the parties' claim construction arguments.¹¹

¹⁰ The defendants in *ICTI* did not propose to limit the construction of the term "point-to-point" in the same way Defendants propose here, but the *ICTI* court did entertain similar arguments when construing the terms "establishing a point-to-point communication" and "to allow the establishment of a packet-based point-to-point communication." The *ICTI* defendants proposed the construction "using the network protocol address retrieved by the server from its database to create a direct communication, initiated solely by one of the processes, and not intermediated by a connection server, gateway, or similar device." See *ICTI*, 2012 WL 5331573, at *10. The court rejected that proposed construction, ruling that, "[h]aving already construed the term 'point-to-point,' . . . the ordinary and customary meaning of the claim terms "establishing a point-to-point communication" and "to allow the establishment of a packet-based point-to-point communication," as understood by a person of skill in the art when read in the context of the entire patent, is readily apparent even to a layperson." *Id.* at *9.

¹¹ In any event, this Court's construction of the term "point-to-point communication," which is set forth below, is essentially consistent with that in *ICTI*, differing only in that it adds clarification on a point that is disputed between the parties in this case. See generally *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008) ("A determination that a claim term 'needs no construction' or has the 'plain and ordinary meaning' may be inadequate when a term has more than one 'ordinary' meaning or when reliance on a term's 'ordinary' meaning does not resolve the parties' dispute.").

Consistent with their other proposed constructions, Defendants first contend that, based on the specification and prosecution history, the processes between which communication takes place must be “user processes.” The Court rejects this argument for the reasons discussed above.

The defendants also contend that “point-to-point” communication must be “established by one of the processes using the network protocol address of the other process.” Straight Path opposes such a construction on several grounds. First, Straight Path contends that, while a network protocol address is used in some embodiments of the invention to establish “point-to-point communication,” the construction of that term should not be so limited because the patentee did not act as its own lexicographer with respect to the term or clearly disavow its scope. The Court cannot conclude, however, that “point-to-point communication” has a plain and ordinary meaning that is apparent on the face of the claims. The Court must therefore consider the claims in the context of the specification to determine how the patents use the term. *See Interactive Gift Express, Inc.*, 256 F.3d at 1331 (“If the claim language is clear on its face, then [the Court’s] consideration of the rest of the intrinsic evidence is restricted to determining if a deviation from the clear language of the claims is specified If, however, the claim language is not clear on its face, then [the Court’s] consideration of the rest of the intrinsic evidence is directed to resolving, if possible, the lack of clarity.”).

The “Background of the Invention” section of the specification explains that, “[g]enerally, devices interfacing to the Internet and other online services may communicate with each other upon establishing respective device addresses,” and notes that “[p]ermanent IP addresses of users and devices accessing the Internet readily support point-to-point communications of voice and video signals over the Internet.” ’066 patent at 1:32-35, 61-63. By contrast, “[d]ue to the dynamic nature of temporary IP addresses of some devices accessing the

Internet, point-to-point communications in realtime of voice and video have been generally difficult to attain.” *Id.* at 1:67-2:3. Thus, the problem the patents seek to remedy is that of establishing the device address of another user or device when that address is not fixed. The “Summary of the Invention” section of the specification then goes on to explain that the “first point-to-point Internet protocol” includes the steps of:

- (a) storing in a database a respective IP address of a set of processing units that have an on-line status with respect to the Internet;
- (b) transmitting a query from a first processing unit to a connection server to determine the on-line status of a second processing unit; and
- (c) retrieving the IP address of the second unit from the database using the connection server, in response to the determination of a positive on-line status of the second processing unit, for establishing a point-to-point communication link between the first and second processing units through the Internet.

’066 patent at 2:6-25. The crux of the invention, then, is furnishing the IP address of one processing unit to another processing unit to allow the processing units to communicate directly with one another. Based on the specification, a person of ordinary skill in the art would therefore understand “point-to-point communication” to be communication established by one processing unit using the IP address of another processing unit.

Straight Path contends, however, that requiring the use of a network protocol or IP address to establish point-to-point communication is inconsistent with certain of the patent claims, referencing in particular claim 6 of the ’066 patent. Claim 6 applies to “[a] system for point-to-point communications over the Internet comprising”:

- a database for storing a set of Internet Protocol (IP) addresses of at least one processing unit that has on-line status with respect to the Internet;
- a first processing unit including:
 - a first program for performing a first point-to-point Internet protocol; and
 - a first processor for executing the first program and for transmitting a query;

a connection server, responsive to the query, for determining the on-line status of a second processing unit by searching the database, and for transmitting an online message to the first processing unit for establishing a point-to-point communication link between the first and second processing units through the Internet.

Because this claim does not explicitly indicate that one processing unit uses the IP address of the other to establish communication, but rather refers to an online message sent to the first processing unit by the connection server after determining the online status of a second processing unit, Straight Path argues that “this claim recites how point-to-point communication is established—an ‘*online message*’ is transmitted for establishing ‘point-to-point’ communication.” Straight Path IP Group’s Rebuttal to Defendants’ Opening *Markman* Briefs at 10. However, when claim 6 is read in the context of the specification and its dependent claims, claims 7 and 8, it is clear that communication is actually established with the use of an IP address. In that regard, Claim 7 applies to:

The system of claim 6 wherein the connection server, responsive to a positive determination of the online status of the second processing unit, retrieves the respective IP address of the second processing unit from the database and transmits the on-line message, including the IP address, to the first processing unit; and wherein the first processing unit establishes the point-to-point communication link between the first and second processing units through the Internet in response to receiving the IP address of the second processing unit from the connection server.

And Claim 8 applies to:

The system of claim 6 wherein the connection server, responsive to a negative determination of the on-line status of the second processing unit, generates an off-line message, and transmits the off-line message to the first processing unit.

The most logical reading of these claims is that claim 6 applies to the initial steps of determining the online status of the second processing unit and transmitting to the first processing unit a message regarding that status, while claims 7 and 8 deal more specifically with the outcomes that result depending on whether the second processing unit is online. If the second processing unit

is online, the connection server transmits the IP address of the second processing unit to the first processing unit in order to facilitate point-to-point communication.¹²

For these reasons, the Court rejects the defendants' construction insofar as it inserts "user" before "processes," but concludes that the construction of the term "point-to-point communication" requires that such communication be "established by one of the processes using the network protocol address of the other process." The Court further concludes that the terms "processing units" and "IP address," which are used in the '066 patent, should also be referenced, together with "processes" and "network protocol address." The Court will therefore construe the term "point-to-point communication" as "communication between two processing units or processes, established by one of the processing units or processes using the IP or network protocol address of the other processing unit or process, that is not intermediated by a connection server."

D. "connection server"

The term "connection server" is found in claims 1 through 3 and 6 through 8 of the '066 patent and claim 3 of the '365 patent. Straight Path contends that no construction is necessary as

¹² Straight Path also argues that the defendants' proposed construction is inconsistent with claim 1 of the '365 patent, which recites a

program code configured to receive queries for one of the network protocol address and the associated identifier of said one of the processes from other processes over the computer network at the server, and to allow the establishment of a packet-based point-to-point communication between said one of the processes and one of said other processes.

The claim covers one process requesting the network protocol address of another process in order to establish point-to-point communication. This embodiment is entirely consistent with that portion of the defendants' proposed construction indicating that communication is "established by one of the processes using the network protocol address of the other process."

the term has a plain and ordinary meaning, while the defendants would construe the term as “a server that furnishes a network protocol address needed to establish communications.”

As reflected in Defendants’ proposed construction, the term “server” has a plain and ordinary meaning; and, in the context of the specification and the claims, it is clear that the term “connection” is meant to convey only that the server facilitates point-to-point communication. *See, e.g.*, ’066 patent at 2:7-25 (reciting, in the “Summary of the Invention” section of the patent, that the connection server receives a query from the first processing unit and is used to retrieve the IP address of the second processing unit “for establishing a point-to-point communication link between the first and second processing units through the Internet”). In light of the Court’s construction of the term “point-to-point,” and the fact that the claims themselves describe the specific functions performed by the connection server, the Court finds it unnecessary to impose further limitations on the term. The Court will therefore construe “connection server” according to its plain and ordinary meaning as “a server that facilitates point-to-point communication.”

IV. CONCLUSION

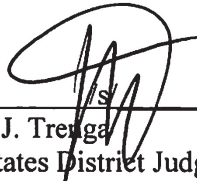
For the foregoing reasons, the Court will construe the disputed terms as follows:

1. The term “processing unit,” as used in claims 1 through 3 and 6 through 8 of the ’066 patent, will be given its ordinary and customary meaning.
2. The term “process,” as used in claims 1 and 3 of the ’365 patent, will be construed as “a running instance of a computer program or application.”
3. The term “point-to-point . . . communication,” as used in claims 1 through 3 and 6 through 8 of the ’066 patent and claims 1 and 3 of the ’365 patent, will be construed as “communication between two processing units or processes, established by one of the

processing units or processes using the IP or network protocol address of the other processing unit or process, that is not intermediated by a connection server.”

4. The term “connection server,” as used in claims 1 through 3 and 6 through 8 of the ’066 patent and claim 3 of the ’365 patent, will be construed as “a server that facilitates point-to-point communication.”

The Clerk is directed to forward copies of this Order to all counsel of record.



Anthony J. Trenga
United States District Judge

February 25, 2014
Alexandria, Virginia