UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

DEEP 9 CORPORATION,	CASE NO. C11-0035JLR
Plaintiff,	ORDER ON
	CLAIM CONSTRUCTION
v.	
BARNES & NOBLE, INC. et al.,	
Defendants.	

I.   INTRODUCTION

This is an order on claim construction in a patent infringement action involving

two patents related to updating information in a system or network involving two or more

devices such as computers, each of which has data stored in its memory. Plaintiff Deep9

Corporation ("Deep9") sued Defendants Barnes & Noble, Inc. and barnesandnoble.com,

LLC (collectively, "Barnes & Noble") for infringement of claims 1-8, 24-30, and 40 of

United States Patent No. 5,937,405 ("the '405 Patent") and claims 9-13, 17-25, 35-37,

and 41-43 of United States Patent No. 6,377,951 ("the '951 Patent") (collectively, the

ORDER- 1

1 "Patents-in-Suit"). The court has considered the parties' briefing and supporting

2 materials and has heard both oral argument from the parties and expert testimony at a

3 *Markman* hearing, held on October 25, 2011. This order memorializes the court's

4 construction of the disputed language in the Patents-in-Suit.

II.   BACKGROUND

6   David Campbell is the sole inventor of the Patents-in-Suit, which were first

7 assigned to Punch Networks Corporation and then assigned to Deep9, the current

8 assignee. (Deep9 Op. Br. (Dkt. #43) at 6.) Mr. Campbell is the sole shareholder, officer

9 and director of Deep9. (*Id.*) Deep9 contends that Barnes & Noble's Nook, Nook Color,

10 and All-New Nook devices infringe the above-stated claims of the Patents-in-Suit.

11 **A.   Factual Background**

12   The Patents-in-Suit disclose systems and methods related to online updating of

13 databases via a network. Both patents describe an invention involving the updating of

14 information in a network including two or more devices, such as computer terminals.

15 The Patents-in-Suit often name the devices within the network as "user terminals" or

16 "host terminals." When one device on the network becomes updated with new

17 information, the disclosed inventions generally teach a system or method for updating the

18 remaining devices on the network with that same new information.

19   The inventions purport to provide several advantages over the technology in

20 existence at the filing date of the Patents-in-Suit. The inventions provide for the handling

21 of data in the form of modules and blocks, where a plurality of blocks comprises a

22 module. Such a system or method allows for the updating of specific blocks of

1 information between devices, thereby conserving data-transmission resources.

2 Additionally, the system and method allow for the updating of devices on a network

3 where data is de-centralized amongst various devices. Utilizing the module and block

4 structure, a device on the network can download only the blocks of data which are more-

5 recently updated than the blocks of data currently stored on the device. Through this

6 method of updating, the updating-device picks and chooses the most recent data in the

7 form of blocks relative to itself as it searches through the other devices on the network.

8 Thus, at the end of a search, the device has the most recent set of data contained on all of

9 the devices of the network, because no overwriting of newer data occurs.

10   Claim 1 of the '405 Patent is representative of a method claim with respect to most

11 of the disputes in this case:

12   1.   A method for updating modules of information via a network comprising a plurality of terminals, the method comprising:

13

14   (a) identifying a first module containing information to be updated, wherein the first module is stored in memory of a first terminal, and wherein the first module comprises a plurality of first module blocks;

15

16   (b) identifying a second module containing more recent information than the first module, wherein the second module is stored in memory of a second terminal, and wherein the second module comprises a plurality of second module blocks;

17

18   (c) identifying which second module blocks contain more recent information than the first module blocks;

19

20   (d) downloading via the network the identified second module blocks from memory of the second terminal to the first terminal; and

21   (e) updating the first module stored in memory of the first terminal with the more recent information contained in the identified second module

22   blocks downloaded from memory of the second terminal.

1 (*See* '405 Patent.)

2   Claim 24 of the '405 Patent is representative of a system claim with respect to

3 most of the disputes in this case:

4   24.   A computer readable medium encoded with a set of executable instructions
     to perform a method for updating modules of information via a common
5   communication channels interconnecting a plurality of terminals, the method
     comprising:

6
     (a) identifying a first module containing information to be updated, wherein the
7   first module is stored in memory of a first terminal, and wherein the first
        module comprises a plurality of first module blocks;

8
     (b) identifying a second module containing more recent information than the first
9   module, wherein the second module is stored in memory of a second terminal,
        and wherein the second module comprises a plurality of second module blocks;

10
     (c) identifying which second module blocks contain more recent information than
11   the first module blocks;

12   (d) downloading via the common communication channels the identified second
        module blocks from memory of the second terminal to the first terminal; and

13
     (e) updating the first module stored in memory of the first terminal with the more
14   recent information contained in the identified second module blocks
        downloaded from memory of the second terminal.

15
(*See* '405 Patent.)

16
    Claim 35 of the '951 Patent is representative of a method claim including the

17
disputed terms "host terminal/computer" and "user terminal/computer":

18
    35.   A method of updating a plurality of user modules of information via a
19   common communications channel interconnecting a host computer and a user
     computer, the user computer having a user memory for storing user modules, each
20   user module including a plurality of user module blocks, the host computer having
     a host memory for storing host modules, each host module including a plurality of
21   module blocks, the method comprising:

22   (a) identifying a first user module stored in user memory, wherein at least one first

user module block of the first user module comprises a second user module of information;

(b) identifying a first host module stored in host memory that corresponds to the first user module, wherein each first host module block corresponds to a first user module block, wherein at least one first host module block comprises a second host module of information, and wherein the second host module corresponds to the second user module;

(c) comparing the first host module to the first user module to determine if the first host module contains more recent information;

(d) if the first host module contains more recent information, comparing each first host module block to the corresponding first user module block to determine if the first host module block contains more recent information than the corresponding first user module block;

(e) if the first host module block comprises a second host module of information, comparing each second host module block to the corresponding second user module block to determine if the second host module block contains more recent information than the corresponding second user module block;

(e) downloading via the common communications channel, each host module block containing more recent information into user memory; and

(g) updating each corresponding user module block with the corresponding downloaded host module block.

(*See* '951 Patent.)

B.   Prosecution History

Because the prosecution histories of the Patents-in-Suit figure prominently in at least one of the disputed terms, the court briefly summarizes the histories and provides additional detail as necessary in its analysis below. Both Patents-in-Suit claim priority from an application filed by Mr. Campbell on May 25, 1995, which would eventually issue as U.S. Patent No. 5,694,596 ("the '596 Patent"). (Deep9 Op. Br. at 5.) The '405 Patent is a continuation of that application, and the '951 Patent is a continuation of the

1 '405 Patent. Therefore, the Patents-in-Suit share a specification with each other as well as

2 with the '596 Patent.[1] (*Id.*)

3   On July 18, 1996, the examiner issued a non-final rejection of all claims in Mr.

4 Campbell's May 25, 1995 application. Specifically, the examiner rejected the claims as

5 obvious, citing various combinations of U.S. Patent No. 4,558,413 ("Schmidt"), U.S.

6 Patent No. 4,796,293 ("Blinken"), and U.S. Patent No. 5,495,610 ("Shing"). (Dkt. #42-4

7 at 3-18.) In response to this rejection, Mr. Campbell filed an Amendment and Request

8 for Reconsideration on October 16, 1996, including remarks distinguishing the Schmidt,

9 Blinken, and Shing Patents. (*See id.* at 50-60.) The examiner issued a further Office

10 Action on December 20, 1996, allowing some claims and issuing a final rejection of

11 some claims. (*See id.* at 62-71.) The rejection of claims was once again based on a

12 combination of Schmidt and Blinken. (*See id.* at 61-71.) Mr. Campbell responded on

13 March 17, 1997, by cancelling the rejected claims, amending certain claims and adding

14 several additional claims. (*See id.* at 72-86.) On April 18, 1997, the examiner allowed

15 the amended and additional claims, and the '596 Patent issued on December 2, 1997.

16 (Deep9 Op. Br. at 7.[2])

17   On November 12, 1997, just prior to issuance of the '596 Patent, Mr. Campbell

18 filed a continuation application. (Dkt. # 45-5 at 2.) The examiner issued an Office

19 _____

20   [1] Where patents-in-suit all derive from the same parent application and share many
common terms, the court must interpret the claim consistently across all asserted patents. *NTP,*
21 *Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005).

22   [2] The parties do not appear to have provided the court with the notice of allowance for the
claims of the '596 Patent or the '405 Patent.

1 Action on August, 24, 1998, rejecting all pending claims as anticipated or obvious by

2 Schmidt. (Dkt. # 42-5 at 3-8.) After Mr. Campbell responded on December 22, 1998,

3 the examiner issued a notice of allowance of the claims on January 4, 1999. (Deep9 Op.

4 Br. at 8.) The '405 Patent issued on August 10, 1999. (*Id.*)

5   On August 6, 1999, just before issuance of the '405 Patent, Mr. Campbell filed a

6 continuation application with new claims. On January 20, 2001, the examiner issued an

7 Office Action rejecting all pending claims, with many rejected as anticipated by U.S.

8 Patent No. 5,835,911 ("Nakagawa"). (Dkt. # 42-6 at 3-29.) In an interview on May 25,

9 2001, the examiner agreed that the Nakagawa Patent does not "disclose the use of

10 updating a block as claimed [in Mr. Campbell's invention]." (Dkt. # 42-7 at 3.) On June

11 29, 2001, the examiner issued a notice of allowance, and the '951 Patent issued on April

12 23, 2002. (Dkt. # 42-7 at 21-27; Deep9 Op. Br. at 9.)

III.   ANALYSIS

14   In *Markman v. Westview Instruments, Inc.*, the Supreme Court placed sole

15 responsibility for construing patent claims on the court. 517 U.S. 370, 372 (1996). The

16 Federal Circuit later established that the court construes claims purely as a matter of law.

17 *Cybor Corp. v. FAS Tech., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (applying de novo

18 review to all claim construction issues, even "allegedly fact-based questions").

19 Executing the *Markman* mandate requires a court to interpret claims after giving the

20 appropriate level of consideration to various sources of evidence.

21   Intrinsic evidence, which includes the patent and its prosecution history, is the

22 primary source from which to derive a claim's meaning. *Phillips v. AWH Corp.*, 415

F.3d 1303, 1314 (Fed. Cir. 2005) (en banc). A patent is composed of three parts: (1) a "written description," which consists of an often lengthy exposition of the background of the invention, at least one embodiment of the invention, and other written material that assists in understanding how to practice the invention; (2) (in most cases) a set of drawings that illustrates portions of the written description; and (3) the claims, which delimit the scope of the invention. *General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1274 (Fed. Cir. 1992). Together, these three components make up the patent's "specification."[3] *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1384 (Fed. Cir. 1999); 35 U.S.C. § 112.

The prosecution history exists independently of the patent. It consists of the inventor's application to the United States Patent and Trademark Office ("PTO") and all correspondence between the PTO and the inventor documenting the invention's progress from patent application to issued patent. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

In its review of intrinsic evidence, the court begins with the language of both the asserted claim and other claims in the patent. *Phillips*, 415 F.3d at 1314; *Biagro Western Sales, Inc. v. Grow More, Inc.*, 423 F.3d 1296, 1302 (Fed. Cir. 2005) ("It is elementary that claim construction begins with, and remains focused on, the language of the claims."). The court's task is to determine the "ordinary and customary meaning" of the

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[3] Although 35 U.S.C. § 112 includes the claims as part of the specification, many courts and practitioners use the term "specification" to refer to all portions of a patent except the claims. In most instances, the context will reveal what portion of the specification is at issue.

1 terms of a claim through the eyes of a person of ordinary skill in the art on the filing date

2 of the patent. *Phillips*, 415 F.3d at 1313 (quoting *Vitronics*, 90 F.3d at 1582).

3 Sometimes, the ordinary meaning is "readily apparent even to lay judges," in which case

4 claim construction "involves little more than the application of the widely accepted

5 meaning of commonly understood words." *Id.* at 1314.

6   The court must read claim language, however, in light of the remainder of the

7 specification. *Id.* at 1316 ("[T]he specification necessarily informs the proper

8 construction of the claims."). In cases where the ordinary meaning of a claim term seems

9 apparent from its use in the claim, the court must consult the specification either to

10 confirm that meaning or to establish that the inventor intended a different meaning.

11 *Superguide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). If the

12 ordinary meaning is not apparent from its use in the claim, the court looks to the

13 specification to provide meaning. *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175

14 F.3d 985, 990 (Fed. Cir. 1999). The specification acts as a "concordance" for claim

15 terms, and is thus the best source beyond claim language for understanding claim terms.

16 *Phillips*, 415 F.3d at 1315. The inventor is free to use the specification to define claim

17 terms as she wishes, and the court must defer to an inventor's definition, even if it is

18 merely implicit in the specification. *Id.* at 1316 ("[T]he inventor's lexicography

19 governs."), 1320–21 (noting that a court cannot ignore implicit definitions). The court

20 should "rely heavily" on the specification in interpreting claim terms. *Id.* at 1317.

21   When the court relies on the specification, however, it must walk a tightrope

22 between properly construing the claims in light of the written description and the

1 "cardinal sin" of improperly importing limitations from the written description into the

2 claims. *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337,

3 1340 (Fed. Cir. 2001); *Phillips*, 415 F.3d at 1323 (citing *Comark Commc'ns, Inc. v.*

4 *Harris Corp.*, 156 F.3d 1182, 1186-87 (Fed. Cir. 1998)). A patentee often provides

5 examples or "embodiments" of his or her invention in the written description, but courts

6 may not limit the invention to an embodiment absent clear evidence that a patentee

7 "intends for the claims and the embodiments . . . to be strictly coextensive." *Phillips*, 415

8 F.3d at 1323.

9   Although a patent's prosecution history is also intrinsic evidence, it is "less useful

10 for claim construction purposes," because it usually "lacks the clarity of the

11 specification." *Id.* at 1317. The prosecution history is useful, however, in determining if

12 an inventor has disavowed certain interpretations of his or her claim language. *Id.*

13   Finally, the court can consider extrinsic evidence, "including expert and inventor

14 testimony, dictionaries, and learned treatises." *Id.* (citing *Markman v. Westview*

15 *Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995)). Extrinsic evidence is usually "less

16 reliable than the patent and its prosecution history" as a source for claim interpretation.

17 *Id.* at 1318. The court thus need not admit extrinsic evidence, but may do so in its

18 discretion if intrinsic evidence does not disclose the meaning of a claim term. *Id.* at

19 1319; *Vitronics*, 90 F.3d at 1583 ("[W]here the public record unambiguously describes

20 the scope of the patented invention, reliance on any extrinsic evidence is improper.").

21 With this general framework in mind, the court turns to the claim terms in dispute.

22

A.   "Network"

The term "network" appears in asserted claims 1-8 and 40 of the '405 Patent. As an initial matter, the parties disagree over whether the term is in fact limiting. Deep9 argues that because "[n]othing in the operation of the claimed methods depends on the kind or configuration of network," the term's appearance in the preamble is not limiting. (Deep9 Op. Br. at 12.) Barnes & Noble responds that the term is limiting because it is found in both the preamble and the body of the claims and was relied upon during prosecution by the patentee, Mr. Campbell. (Barnes & Noble Resp. (Dkt. # 50) at 10-13.) The court agrees with Barnes & Noble that the term is limiting.

"In general, a preamble limits the invention if it recites essential structure or steps, or if it is 'necessary to give life, meaning, and vitality' to the claim." *Seachange Int'l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1376 (Fed. Cir. 2005) (quoting *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quotation omitted)). "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." *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1306 (Fed. Cir. 2005) (quoting *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003)). In short, "when the claim drafter chooses to use *both* the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects." *Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995) (emphasis in original).

On the other hand, a preamble generally is not limiting "when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention." *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1358-59 (Fed. Cir. 2010) (quoting *Catalina*, 289 F.3d at 809). In such situations, a preamble may merely "state a purpose or intended use for the invention." *Symantec Corp. v. Computer Assocs. Int'l, Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008) (citation omitted).

Here, as Barnes & Noble correctly points out, the word "network" appears both in the preamble and the body of the claims. (Barnes & Noble Resp. at 10-11.) For example the preamble of claim 1 of the '405 Patent states: "A method for updating modules of information via a *network* comprising a plurality of terminals, the method comprising: . . ." (Claim 1 of the '405 Patent (emphasis added).) Within the body of claim 1 the '405 Patent recites: "downloading via the *network* the identified second module blocks from memory of the second terminal to the first terminal . . ." (*Id.* (emphasis added).) When the body of the claim refers to a "network," it is referring to the "network" stated in the preamble, and therefore the preamble provides an antecedent basis for the term. *NTP*, 418 F.3d at 1306. Moreover, as the term "network" is found in the body of the claims, the court will give meaning to the term. *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, Inc., 381 F.3d 1111, 1119 (Fed. Cir. 2004) (holding that all claim terms

1 are generally presumed to have meaning in a claim). Accordingly, the court finds that the

2 term "network" to be a claim limitation.[4]

3   Having found that the term "network" is indeed limiting on the claims, the court

4 must now construe the term. The parties offer the following proposed constructions.

5   **Deep9's Proposed Construction:** Deep9 contends this term does not need a

6 construction, but to the extent that a construction is required, Deep9 proposes, "A

7 configuration of data processing devices and software connected for information

8 interchange." (Dkt. # 42 at 9.)

9   **Barnes & Noble's Proposed Construction:** "Matrix-style network wherein there

10 are direct connections established between various client computers, as opposed to a

11 hierarchical network with a single parent with multiple children structure, i.e. in a matrix-

12 style network it is necessary that each node in the network be capable of directly

13 communicating with each other node." (Dkt. # 42 at 9.)

14   The central difference between the proposed definitions is that while Deep9

15 proposes a broad construction of the term, Barnes & Noble's definition creates a

16 dichotomy between a "matrix-style" network and a "hierarchical" network and eliminates

17 from its definition the latter. Barnes & Noble finds support for its more limited

18 construction from the prosecution history of the '596 Patent. Barnes & Noble argues that

19 the patent examiner rejected all of the claims in the '596 patent application in light of the

20

21   [4] Because the court finds the term "network" limiting on the basis that it appears in both
the preamble and the body of the claims, it need not address Barnes & Noble's additional
22 argument that the term is limiting because it was referenced during prosecution.

1 Schmidt Patent and that to overcome this rejection, Mr. Campbell made statements which

2 explained that his patented method applied only to a matrix-style network. (Barnes &

3 Noble Op. Br. (Dkt. # 44) at 10.) Barnes & Noble points the court to several statements

4 from the prosecution history:

5   The present invention is a system and method for updating one or more
        databases in a matrix-style network. A user terminal may be connected,
6   through a communications channel, to one or more host terminals and/or
        alternative host terminals. Each host terminal and alternate-host terminal
7   contains stored modules of information. . . .

8 (Dkt. # 42-4 at 50.)

9   The Schmidt '413 system is a centralized management system operating on
        a network with known nodes that collects and recompiles objects updated
10   on one of the established nodes on a nearly real-time basis.   The
        management system, also called the system modeler, "automatically
11   manages the compilation, loading and saving of new modules as they are
        produced . . . . Through automatic update of the system models, responsive
12   to the system editor's notification, the system modeler continually
        maintains the most current version of the developing software in a
13   centralized location. The mode of operation of the Schmidt '413 system is
        not analogous to what occurs with the present invention. . . .   To have
14   Schmidt '413 operate like the present invention would render Schmidt '413
        totally ineffective.
15
   (Dkt. # 42-4 at 54.) Barnes & Noble asserts that "[w]ithout limiting its claims to matrix-
16
   styled networks, Deep9 was unable to show a distinction over" Schmidt and therefore
17
   Deep9 should be held to its arguments made during prosecution. (Barnes & Noble Resp.
18
   at 8-9.)
19
        In response, Deep9 argues (1) that Barnes & Noble's proposed construction
20
   employs a false dichotomy between a matrix-style network and a hierarchical network
21
   (Deep9 Resp. (Dkt. # 48) at 8); and (2) that during prosecution Mr. Campbell did not
22

1   disavow a hierarchical network, but in fact specifically included a hierarchical network

2   within the definition of "network" (*id.* at 13).

3   Here, Barnes & Noble seeks to invoke the doctrine of prosecution disclaimer. *See*

4   *Omega Eng'g. Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323-25 (Fed. Cir. 2003).

5   "[S]tatements made during prosecution may . . . affect the scope of the invention."

6   *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1343 (Fed. Cir. 2001). Specifically, "a

7   patentee may limit the meaning of a claim term by making a clear and unmistakable

8   disavowal of scope during prosecution." *Purdue Pharma L.P. v. Endo Pharms., Inc.*, 438

9   F.3d 1123, 1136 (Fed. Cir. 2006). A patentee could do so, for example, by clearly

10 characterizing the invention in a way to try to overcome rejections based on prior art.

11 *See, e.g.*, *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004).

12 The doctrine of prosecution disclaimer "protects the public's reliance on definitive

13 statements made during prosecution" by "precluding patentees from recapturing through

14 claim interpretation specific meanings [clearly and unmistakably] disclaimed during

15 prosecution." *Raytek*, 334 F.3d at 1323-24 (citation omitted). Claims should not be

16 construed "one way in order to obtain their allowance and in a different way against

17 accused infringers." *Chimie v. PPG Indus.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005)

18 (citation omitted).

19   The court finds that Mr. Campbell clearly disavowed a hierarchical-type network

20 through statements made during prosecution. Mr. Campbell's October 16, 1996

21 Amendment and Request for Reconsideration in response to rejection of all claims in the

22 '596 Patent application is replete with statements differentiating the prior art on the

1 grounds that his invention "is a system and method for updating one or more databases *in*

2 *a matrix-style network*." (Dkt. # 42-4 at 50 (emphasis added).) In describing the

3 network, Mr. Campbell stated that the "matrix-style distribution of information in the

4 given databases is supported by the present invention's novel approach to updating . . . ."

5 (*Id.* at 51-52.) In differentiating the Schmidt Patent, Mr. Campbell argued that Schmidt

6 "teaches against the volitional updating process of the present invention and certain does

7 not suggest the solution to *diffused materials' information* as set forth in the present

8 invention." (*Id.* at 55 (emphasis added).) Similarly, Mr. Campbell distinguished both the

9 Schmidt and Shing patents and argued that his invention provided an advantage over

10 Schmidt and Shing patents because:

11 The present invention addresses *the need to coalesce the diffused information sources* inherent in the materials selection process responsive
12 to specific and often highly individual user needs and requests. Not every user receives or even wants the same updated information. Instead the
13 present invention responds to the particular and changing needs of users *by providing a means of compiling from a plurality of locations* the most
14 recent data in a user-selected area.

15 (*Id.* at 57-58 (emphases added).)

16 In these statements, to gain allowance of his claims, Mr. Campbell clearly

17 distinguished his invention from the prior art based on the type of network it utilized.

18 *See, e.g.*, *Multi-Tech Sys.*, 357 F.3d at 1349 (limiting the term "transmitting" to require

19 direct transmission over telephone line because the patentee stated during prosecution

20 that the invention transmits over a standard telephone line, thus disclaiming transmission

21 over a packet-switched network); *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1372

22 (Fed. Cir. 2003) (finding the patentee expressly disavowed floor paneling systems

1   without "play" because the applicant cited the feature during prosecution to overcome

2   prior art); *Bell Atl. Network Servs. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1273

3   (Fed. Cir. 2001) (limiting operation of the "transceiver" to the three stated modes because

4   of clearly limiting statements made by the patentee to try to overcome a prior art

5   rejection). Moreover, a person of ordinary skill reading Mr. Campbell's statements to the

6   examiner would be left with the understanding that Mr. Campbell's invention utilized a

7   matrix-style network where information is stored in more than one place, as opposed to

8   one centralized location. Thus, the public notice function inherent in the prosecution

9   history dictates the result that Mr. Campbell clearly disavowed a hierarchical type

10 network, where all new information is stored in one place. *See Raytek*, 334 F.3d at 1323-

11 24.

12   In an effort to support the inclusion of a hierarchical-type network in the

13 construction of the network term, Deep9 points the court to the single following

14 statement made by Mr. Campbell during prosecution: "While there may be a hierarchy

15 among the host and alternate-host terminals, it is susceptible to change and often varies

16 with the database concerned." (Deep9 Resp. at 13.) Deep9 argues that this statement

17 shows that Mr. Campbell specifically included a hierarchical network within the scope of

18 the network term. (*Id.*) The court finds this argument unpersuasive. Careful

19 examination of this statement within the context of Mr. Campbell's remarks to the

20 examiner shows that Mr. Campbell was in fact again arguing that the network of his

21 invention was in fact the opposite of a hierarchical network, where all new information is

22 in a centralized location. With this statement, Mr. Campbell sought only to clarify that

1   while a hierarchy may exist between the terminals on the network, the new information

2   on the network was decentralized and in more than one place. Thus, the distinction made

3   by Mr. Campbell, consistent throughout all of his statements to the examiner is that his

4   network is one where new information is stored in more than one place.

5   While the court finds that Deep9's construction fails to align with statements made

6   by Mr. Campbell during prosecution, it also finds Barnes & Noble's proposed

7   construction unpersuasive. While the term "matrix-style network" was first introduced

8   by Mr. Campbell during prosecution (Dkt. # 42-4 at 50), the court does not believe the

9   phrase would be helpful to the finder of fact when determining infringement. Moreover,

10 as Deep9 correctly points out, there is nothing in the intrinsic evidence to support the

11 requirement that the network have "direct connections established between various client

12 computers," as required by Barnes and Nobel's construction. (Deep9 Op. Br. at 13.)

13 Thus, the court defines the term network as: "a configuration of nodes where information

14 is stored in more than one place." This definition aligns with the statements made by Mr.

15 Campbell during prosecution history distinguishing his invention from one where new

16 information is stored in a centralized location and at the same does not unduly limit the

17 term.

18 **B.   "Common communications channels"**

19   As it did with the previous term, Deep9 argues that the term "common

20 communications channels," found in claims 24-30 of the '405 Patent and in claims 9-13,

21 17-25, 27-33, 35-37, and 41-43 of the '951 Patent, is not limiting. As with "network,"

22 the term "common communications channels" appears in both the preamble and the body

1 of the claims. (*See, e.g.*, Claim 24 of the '405 Patent.) For precisely the same reasons

2 that the court found the "network" term limiting, the court finds the term "common

3 communications channels" limiting.

4   The parties offer the following proposed constructions:

5   **Deep9's Proposed Construction:** Deep9 contends that this term does not need to

6 be construed, but to the extent a construction is required, Deep9 proposes, "public or

7 shared data transmission channels." (Deep9 Op. Br. at 16.)

8   **Barnes & Noble's Proposed Construction:** "Communication system utilizing

9 direct connections via a common carrier (i.e. telephone lines) such as by a client directly

10 dialing a host via a modem as opposed to a communication system through which

11 information travels through numerous different discrete channels such as the internet."

12 (Barnes & Noble Op. Br. at 23.)

13   The parties' dispute is whether the term "common communications channels"

14 should include the internet, as encompassed by Deep9's construction, or be limited to a

15 telephone line (such as a modem), as defined by Barnes & Noble's construction. While

16 the parties agree the disputed term appears nowhere in the specification, that is the end of

17 their agreement. In support of its construction, Barnes & Noble asserts that all of the

18 "communications channels mentioned [in the specification] between the user and the host

19 are modem connections . . . ." (*Id.* at 24.) Additionally, Barnes & Noble reads the term

20 in light of the concept of a "common carrier," which it defines as "a public data

21 transmission service that provides the general public with transmission service facilities;

22 for example, a telephone or telegraph company." (*Id.*) Based on this definition, Barnes

1 & Noble argues that the internet is not a "common" carrier because as opposed to a

2 telephone line where data travels from one point to another through a direct connection,

3 the internet utilizes "multiple switches and routers that divide [data] packets and send

4 them through multiple different channels to be reassembled on the other end." (*Id.* at 24-

5 25.) Deep9 responds that it is impermissible to limit the term to the technology in

6 existence at the time of the patent. (Deep9 Op. Br. at 16.) Deep9 also provides various

7 dictionary definitions to support its construction. (Deep9 Resp. at 15-16.)

8   As the parties agree that the neither specification nor the prosecution history

9 define the term "common communications channels," the court gives this term its

10 ordinary meaning. While Barnes & Noble points the court to examples in the

11 specification utilizing a modem and telephone wires for the communication channel,

12 those examples are merely examples. At no point did the patentee, in this case Mr.

13 Campbell, attempt to define the term "common communications channel" in the

14 specification. Thus, it would impermissible for the court to read those embodiments as a

15 limitation into the claim. *SciMed Life.*, 242 F.3d at 1340; *Phillips*, 415 F.3d at 1323.

16 Also, while Barnes & Noble attempts to limit the scope of the term to exclude the internet

17 by arguing that data transmissions over the internet do not in fact use common pathways,

18 such an argument is better left for the infringement stage of the case. At the *Markman*

19 stage, the court must construe the term under the cannons of claim construction.

20   The court, however, is not persuaded that the ordinary meaning of the term

21 "common communications channels" includes the idea of a "public" channel as proffered

22 by Deep9. Indeed, Deep9's own dictionary definitions fail to provide support for

1   inclusion of "public" channels in the construction. (Deep9 Resp. at 16 (providing

2   definition of "common communications carrier" as "[a] communications company

3   authorized by the licensing agency to furnish public communications").) While the

4   "common communication channels" may very well provide service to the public, it does

5   not follow that such communication channels are indeed public in the way that a public

6   park is accessible to all persons. Thus, inclusion of the word "public" within the

7   construction of the term "common communications channels" will likely confuse the

8   finder of fact. Accordingly, the court gives the term "common communications

9   channels" the following construction: "shared data transmission channels."

10 **C.   The "Identifying" Terms**

11   The parties disagree over the construction of the following three terms, which has

12 the court has labeled the "identifying" terms: (1) "identifying a first module containing

13 information to be updated"; (2) "identifying a second module containing more recent

14 information than the first module"; and (3) "identifying which second module blocks

15 contain more recent information than the first module blocks." These terms all appear in

16 claims 1-8 and 24-30 of the '405 Patent and claims 9-13 and 17 of the '951 Patent.

17 Because the parties dispute over these terms are interrelated and the parties briefed these

18 terms together, the court analyzes these terms as a group, but provides constructions for

19 each individual term.

20   For each of the "identifying" terms, Deep9 "contends that the term does not need

21 to be separately construed, because its meaning is adequately explicated by the individual

22 terms (identifying, module) that are separately defined [by the parties]." (Deep9 Op. Br.

1 │ at 18, 20, 22.) Barnes & Noble provides the following constructions for each term: (1)

2 │ **identifying a first module containing information to be updated** means "identifying a

3 │ first module containing information to be updated which constitutes a separate and

4 │ distinct step from identifying a second module or identifying second module blocks and

5 │ which precedes identifying a second module or a second module block"; (2) **identifying**

6 │ **a second module containing more recent information than the first module** means

7 │ "identifying a module located on a different computer than the first module where the

8 │ identification of more recent information requires, for the information stored in the first

9 │ module and the second module, determining which module contains information that is

10 │ more recent"; and (3) **identifying which second module blocks contain more recent**

11 │ **information than the first module blocks** means "determining which second module

12 │ blocks on one computer are different from the second module blocks on another

13 │ computer to determine which module blocks contain information that is more recent."

14 │ (Barnes & Noble Op. Br. at 16.)

15 │ The central dispute between the parties is whether the "identifying" terms require

16 │ a specific order of steps. Barnes & Noble argues that each of the three 'identifying"

17 │ terms constitutes a separate and distinct step from the other terms and that each is

18 │ performed in the order set forth in the claims (*Id.* at 17). Barnes & Noble argues that this

19 │ sequence-of-steps requirement is supported by a logical reading of the claim language

20 │ itself, the specification, and the prosecution history. (*Id.* at 17-19; Barnes & Noble Resp.

21 │ at 21-22.) On the other hand, Deep9 urges the court not to place an order of steps on the

22 │

1   "identifying" terms. (Deep9 Op. Br. at 19.)[5] Deep9 argues that nothing in the claim

2   language, specification, or prosecution history recites an order, and without such

3   recitation it is improper to limit claims to require a sequence of steps. (*Id.* at 17-18.)

4   Specifically, Deep9 argues that the first and second "identifying" steps—identifying a

5   first module containing information to be updated" and "identifying a second module

6   containing more recent information than the first module," respectively—could happen

7   simultaneously. (*Id.* at 18.) In its efforts to demonstrate that the first and second

8   "identifying" steps could be performed simultaneously, at oral argument Deep9 provided

9   an example where the first and second modules each had date stamps, which were

10   compared simultaneously to determine that the first module is "to be updated" and the

11   second module is "more recent."

12   While the court commends Deep9's creative argument, after careful consideration

13   of the claim language and the specification, it finds the argument unpersuasive, and will

14   place a sequence-of-steps requirement on the "identifying" terms. The plain claim

15   language of the first "identifying" term requires that a module containing information to

16   be updated is in fact identified. ('405 Patent, 24:5-6 ("identifying a first module

17   containing information to be updated, ...").) Likewise, the plain claim language of the

18   second "identifying" term requires that a second module is in fact identified. ('405

19   Patent, 24:9-10 ("identifying a second module containing more recent information than

20

21   [5] During oral argument, Deep9 appeared to admit that there was little support for the notion that the third "identify" term—identifying which second module blocks contain more recent information than the first module blocks—could occur at the same time as the other two

22   "identifying" terms.

1 | the first module, ...").) Additionally, the specification leaves little doubt that the

2 | second "identifying" term requires identification of a second module which corresponds

3 | to the first module. (*E.g.*, '405 Patent, 3:17-21 ("The method further comprises the steps

4 | of locating a host terminal, scanning the host terminal memory for stored host modules,

5 | and locating a stored host module *corresponding* to the stored user module and having a

6 | host origin date.") (emphasis added).) It would be seemingly impossible for a computer

7 | system to simultaneously identify a first module and a corresponding second module. It

8 | stands to reason that the processor of the system would need to determine the

9 | identification of the first module before it could locate its corresponding second module.

10 | *See, e.g.*, *Loral Fairchild Corp. v. Sony Corp.*, 181 F.3d 1313, 1321 (Fed. Cir. 1999)

11 | (construing the claim as requiring step 3 (forming the insulation layer) to be performed

12 | before step 4 (forming the implanted barriers), because in order to align the barrier

13 | regions with the insulation layer during ion implantation as recited in the claim, the

14 | insulation layer had to be already in place). While Deep9's example illustrates a manner

15 | in which the invention could simultaneously determine that the first module is "to be

16 | updated" and the second module is "more recent," it does not explain how the invention

17 | could simultaneously identify a first module and a corresponding second module, as

18 | required by the plain claim language.

19 | Unsurprisingly, the example Deep9 provides from the specification similarly

20 | misses the mark. Deep9 directs the court to the following excerpt from the specification

21 | and argues that it supports the notion that the specification discloses a single-step

22 | identification process:

1   FIGS. 5 and 6 depict flow diagrams of the update procedure. Looking to
     FIG 5, to begin the update procedure the Joey scans the modules folder in
2   the Joey's memory. If a module were not found, *then* the method continues
     as set forth in FIG. 6. If a first module were found, *then* the Joey retrieves
3   the origin date for the first module. The Joey *then* compares the retrieved
     origin date retrieved to the origin date of a corresponding Kangaroo
4   module.

5   ('405 Patent, 13:32-39 (emphases added).) While the Deep9 asserts that this excerpt

6   supports a single step identification process, it does just the opposite. The excerpt clearly

7   illustrates a temporal relationship between identifying a first module (located on the

8   "Joey"[6] computer) and then finding a second module (located on the "Kangaroo"[7]

9   computer). Indeed, the specification consistently describes the stepwise nature of the

10   invention of identifying a first module and then identifying a second module. (*E.g.*, '405

11   Patent, 6:23-29 ("In response to locating a user module having a user origin date, the user

12   processor scans a data port for a host terminal. . . . In response to the user identification

13   and user module data, the host processor sends, . . . a host origin date for a host module

14   corresponding to the user module.").)

15   Similarly, it is only logical that the third "identifying" term must occur after the

16   first and second "identifying" terms. The plain claim language of the third "identifying"

17   term requires identifying the blocks within the second module that contain more recent

18   information than the blocks within the first module. Identification of the blocks within

19   the first and second modules can only take place after the first and second modules are

20   _____

21   [6] In the Patents-in-Suit, the term "Joey" is used interchangeably with "user terminal."
           [7] In the Patents-in-Suit, the term "Kangaroo" is used interchangeably with "host
22   terminal."

1   identified. Accordingly, the court places a sequence-of-steps requirement into the three

2   "identifying" terms. *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369-70 (Fed. Cir.

3   2003) (holding that logic and grammar may dictate order of performance).

4   Deep9 also disputes the inclusion by Barnes & Noble of the phrase "module

5   located on a different computer" in Barnes & Noble's construction of the second

6   "identifying" term. Deep9 argues that the claim language immediately following the first

7   and second "identifying" terms already specifies that the modules are stored on different

8   computers. Deep9 is correct. For example, claim 1 of the '405 Patent reads in relevant

9   part:

10   (a) identifying a first module containing information to be updated, *wherein*
          the first module is stored in memory of a first terminal, and wherein the
11   first module comprises a plurality of first module blocks;

12   (b) identifying a second module containing more recent information than
          the first module, *wherein the second module is stored in memory of a*
13   *second terminal*, and wherein the second module comprises a plurality
          of second module blocks;
14

('405 Patent, 24:5-13 (emphases added).) Since the claim language clearly states that the
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first module is stored on a "first terminal" and the second module is stored on a "second
16
terminal," it would be superfluous for the court to include in any of the "identifying"
17
terms a requirement that the modules are located on different computers. *Innova/Pure*
18
Water, 381 F.3d at 1119.
19
       In accordance with the preceding, the court provides the following constructions
20
for the three identifying terms:
21

22

(1) identifying a first module containing information to be updated means "identifying a first module containing information to be updated which constitutes a separate and distinct step from identifying a second module or identifying second module blocks and which precedes identifying a second module or second module blocks";

(2) identifying a second module containing more recent information than the first module means "identifying a module containing more recent information than the first module which constitutes a separate and distinct step from identifying a first module or identifying second module blocks and which succeeds identifying a first module, but precedes identifying or second module blocks"; and

(3) identifying which second module blocks contain more recent information than the first module blocks means "identifying which second module blocks contain more recent information than the first module blocks, which constitutes a separate and distinct step from identifying a first module or identifying a second module and which precedes identifying a first module or identifying a second module."

D. Host Terminal/Computer and User Terminal/Computer

The parties disagree over the terms "host terminal/computer" and "user terminal/computer," which are both found in claims 35-37 and 41-43 of the '951 Patent. Because these two terms are used in a corollary fashion throughout the Patents-in-Suit, the court analyzes them together. The parties propose the following constructions for each of the terms.

Deep9's Proposed Construction for host terminal/computer: "The [computer/terminal] from which [updated/more recent/new] information is downloaded." (Deep9 Op. Br. at 25.)

Barnes & Noble's Proposed Construction for host terminal/computer: "A computer or terminal which may be contacted by other computers or terminals, and to which information can be either uploaded or downloaded, a host terminal may include, but does not require, a display and input means such as a keyboard." (Barnes & Noble Op. Br. at 12.)

Deep9's Proposed Construction for user terminal/computer: "The [computer/terminal] to which [updated/more recent/new] information is downloaded." (Deep9 Op. Br. at 27.)

Barnes & Noble's Proposed Construction for user terminal/computer: "A computer or terminal primarily utilized by human beings, which may contact other computers or terminals, and from which information can either be uploaded or downloaded. However, computers or servers which are not utilized directly by humans are not user terminals or computers. A user terminal or computer must include a display, and an input device such as a keyboard or similar input device." (Barnes & Noble Op. Br. at 12.)

The parties have two disagreements. First, Deep9's proposed constructions limit the direction of data transfer—the "host" downloads data received by the "user," and not vice versa. On the other hand, Barnes & Noble's constructions allow for bi-directional exchange of information between the "host" and "user" terminals. Second, Barnes &

1 Noble's proposed constructions add functional and structural requirements to the terms.

2 Barnes & Noble's constructions (1) imply that a "user" terminal would primarily be

3 utilized by human beings; and (2) require a display and input device (similar to a

4 keyboard) on the "user" terminal but not on the "host" terminal. Deep9's constructions

5 do not include such limitations.

6   With respect to the first dispute, Deep9 argues that throughout the specification

7 the "host" terminal is defined by its role as the provider of information and the "user"

8 terminal as the receiver of information. Barnes & Noble offers virtually no intrinsic

9 evidence that the host terminal and user terminal bi-directionally exchange data. (*See*

10 *generally* Barnes & Noble Op. Br. at 12-16; Barnes & Noble Resp. at 14-18.) The court

11 has examined the specification and agrees that read in its entirety, the "user" terminal is

12 defined as a terminal which seeks updated information which resides on a "host"

13 terminal.

14   For example, in four different scenarios described in the Patents-in-Suit, a "Joey"

15 terminal seeks updated information from several "Kangaroo" terminals, so that the

16 "Joey" terminal will contain the most updated information on the network. (*See, e.g.*,

17 Scenarios 1-4, '405 Patent, 15:62-23:23:67.) While the "Joey" terminals may contact

18 "Kangaroo" terminals to indicate the sort of information sought, the actual providing of

19 data, for purposes of updating the database, is always from the Kangaroos to the Joey.

20 (*Id.*) Through the numerous examples in the specification, which consistently describe

21 the user terminal as receiving updated information from the host terminal, the patentee

22 has acted as its own lexicographer. *Phillips*, 415 F.3d at 1323 (citation omitted) ("One of

1 the best ways to teach a person of ordinary skill in the art how to make and use the

2 invention is to provide an example of how to practice the invention in a particular case.

3 Much of the time, upon reading the specification in that context, it will become clear

4 whether the patentee is setting out specific examples of the invention to accomplish those

5 goals, or whether the patentee instead intends for the claims and the embodiments in the

6 specification to be strictly coextensive.").

7 With respect to the second dispute, Barnes & Noble's constructions seek to limit

8 the terms in two ways. First, Barnes & Noble seeks a definition of "user" terminal

9 which implies that the "user" terminal is "primarily utilized by human beings." With the

10 exception of a single embodiment referenced by Barnes & Noble, the court can find no

11 support in the specification for requiring such a limitation. Additionally, the word

12 "primarily" in the definition adds little guidance to the finder of fact and will likely serve

13 to add more confusion than clarification. The court will not limit the term "user"

14 terminal/computer in such a manner.

15 Second, Barnes & Noble argues that the specification explicitly defined a "user"

16 terminal to include a display and input device, such as a keyboard. Specifically, Barnes

17 & Noble points the court to the following passage of the specification:

18 The present invention comprises a communications network having a
communications channel, a user terminal, and a host terminal. The user
19 terminal includes user-connecting means, user-memory means, *user-input
means, user-display means* and user-processor means.

20

21

22

1   ('405 patent, 4:40-45 (emphasis added).) Barnes & Noble further asserts that the

2   specification made the display and input device optional with respect to the "host"

3   terminal:
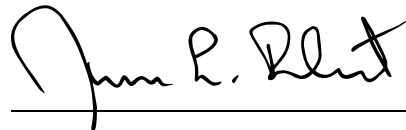
4   The host terminal includes host-connecting means, host memory means,
          and host-processor means. *Optionally*, the host terminal also may include
5   host-communications means, host *input* means, and host-*display* means.

6   ('405 Patent, 5:28-31 (emphases added).) In short, Barnes & Noble argues that the

7   specification defined the terms "user" and "host" terminal. The court agrees.

8   In this instance, the patentee acted as its own lexicographer in defining the terms

9   "user terminal" and "host terminal." *Phillips*, 415 F.3d at 1316 (citation omitted)

10   (holding in part that the patentee is free to define a claim term in any way that he or she

11   wishes, even if that definition is inconsistent with the plain meaning). In the statements

12   above, the patentee was not providing an example or a preferred embodiment, but making

13   a clear and definite statement of the components included in the both the user terminal

14   and host terminal. *Id.* at 1323 (citation omitted). The court finds compelling the fact that

15   the patentee explicitly required a display and input device on the user terminal while

16   explicitly making such accessories optional on the host terminal. The court finds it

17   unnecessary, however, to define a "host terminal" by expounding upon its optional

18   characteristics, and thus does not incorporate Barnes & Noble's statement to that affect.

19

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1   In accordance with the foregoing, the court provides the following constructions

2 for the disputed terms. **Host terminal/computer** is defined as "The [computer/terminal]

3 from which [updated/more recent/new] information is downloaded." **User**

4 **terminal/computer** is defined as "The [computer/terminal] to which [updated/ more

5 recent/new] information is downloaded. A user terminal or computer must include a

6 display and an input device, such as a keyboard or similar device."

7   Dated this 10th day of January, 2012.

8

9 _____

    The Honorable James L. Robart

10   U.S. District Court Judge

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