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

| DROPLETS, INC. | $\S$ |
| :--- | :---: |
| v. | $\S$ |
| eBAY, INC., et al. | $\S$ | CASE NO. 2:11-CV-401-JRG-RSP

On August 13, 2014, the Court held a hearing to determine the proper construction of the disputed claim terms in United States Patents No. 6,687,745, 7,502,838, and 8,402,115. After considering the arguments made by the parties at the hearing and in the parties' claim construction briefing (Dkt. Nos. 198, 203, and 205), ${ }^{1}$ the Court issues this Claim Construction Memorandum and Order.

[^0]
## Table of Contents

BACKGROUND ..... 3
LEGAL PRINCIPLES ..... 5
THE PARTIES' STIPULATED TERMS ..... 8
CONSTRUCTION OF DISPUTED TERMS ..... 8
A. "operating environment information," "information relating to operating environment," and "operating environment" ..... 9
B. "client device information" ..... 15
C. "real-time pull of update information" ..... 19
D. "global unique identifier" ..... 24
E. "presentation client program code" and "presentation client" ..... 24
F. "application" ..... 29
G. "presenting . . . the application," "presenting an application," "display the application," "presenting said invoked application," and "presenting . . . applications" ..... 34
H. "computer program code" and "program code" ..... 35
I. "interactive link" and "link" ..... 39
J. "storing, on the client computer, [a/an] [interactive] link" ..... 52
K. "event message" ..... 56
L. "update message" ..... 58
M. "re-establishing the [second] communication connection" ..... 60
N. "remotely stored application" ..... 64
O. "user interface information" ..... 65
P. "application logic" ..... 67
Q. "hardware, software, and/or user interface capabilities" ..... 68
R. Preambles ..... 71
CONCLUSION ..... 71
APPENDIX A ..... 73

## BACKGROUND

Plaintiff brings suit alleging infringement of United States Patents No. 6,687,745 ("the ' 745 Patent"), $7,502,838$ ("the ' 838 Patent"), and 8,402,115 ("the ' 115 Patent"). Plaintiff asserts Claims 1, 26, 33, 41, and 90 of the ' 745 Patent, Claims 1, 2, 15, 16, and 30 of the ' 838 Patent, and Claims 1, 2, 9, 24, and 25 of the ' 115 Patent. (Dkt. No. 208, 8/4/2014 Plaintiff's Notice of Final Election of Asserted Claims.)

The '745 Patent, titled "System and Method for Delivering a Graphical User Interface of Remote Applications Over a Thin Bandwidth Connection," issued on February 3, 2004, from an application filed on June 22, 2000. The '745 Patent bears a priority date of September 14, 1999.

The '838 Patent and the '115 Patent are both titled "System and Method for Delivering
Remotely Stored Applications and Information." The '848 Patent issued on March 10, 2009, from an application filed on November 24, 2003. The '115 Patent issued on March 19, 2013, from an application filed on January 26, 2009.

The Abstracts of the patents-in-suit are the same and state:
A method and system are disclosed for delivering interactive links for presenting applications and second information at a client computer from remote sources in a network-configured computer processing system. In one embodiment, the method includes retrieving over a first communication connection, in response to a request of a client computer, informational content having computer program code embedded therein, and executing the embedded computer program code for establishing a second communication connection to an application server. The method further includes retrieving over the second communication connection first information including presentational information for presenting the application and the second information. The method also includes presenting the application and the second information based upon the presentational information, and storing on the client computer an interactive link for selectively reestablishing the second communication connection to the application server for retrieving the first information and presenting the application and the second information on an as-needed basis. Preferably, the storing of the interactive link includes downloading a graphical representation of the interactive link and storing a file containing information representing an operating environment of the client computer and a network address of the application server.

The ' 838 Patent is a continuation of the ' 745 Patent. The ' 115 Patent, in turn, is a continuation of the ' 838 Patent. All three patents-in-suit therefore share a nearly identical specification. (See Dkt. No. 198 at 1 n.1; Dkt. No. 203 at 9 n.3.) This Claim Construction Memorandum and Order cites the specification of the '745 Patent unless otherwise indicated.

The ' 745 Patent was the subject of litigation in this Court in Droplets, Inc. v. Adobe Systems Inc., No. 2:06-CV-307 ("Adobe"). In Adobe, the parties submitted claim construction briefing, and Judge Everingham of this Court held a claim construction hearing on May 20, 2008, but the parties settled prior to the Court entering any claim construction order. See No. 2:06-CV-307, Dkt. Nos. 132, 137, 140, 150, 173 \& 175.

Related district court litigation is currently pending in other district courts, namely the Northern District of California and the Southern District of New York. The United States Judicial Panel on Multidistrict Litigation denied Plaintiff's motion to centralize the litigation. See MDL No. 2403, 12/12/2012 Order. Judge Colleen McMahon of the Southern District of New York has entered three orders regarding claim construction as to the ' 745 Patent in Droplets, Inc. v. $E^{*}$ Trade Financial Corp., No. 12 Civ. 2326 ("E*Trade"): (Dkt. No. 218, 10/21/2013 Claim Construction (attached to Plaintiff's brief here as Exhibit G); Dkt. No. 227, 11/27/2013 Supplemental Markman Ruling (attached to Plaintiff's brief here as Exhibit H); and Dkt. No. 242, 1/28/2014 Second Markman Decision Construing "Interactive Link" Following Consideration of Extrinsic Evidence (attached to Plaintiff's brief here as Exhibit I).)

The patents-in-suit have also been involved in various proceedings at the United States Patent and Trademark Office ("PTO").

The '745 Patent has undergone an inter partes reexamination initiated by Adobe Systems Inc., a defendant in the above-cited Adobe litigation. An Inter Partes Reexamination Certificate issued on March 1, 2011, confirming original Claims 1-26 and adding new Claims 27-104.

The '838 Patent is the subject of an ongoing inter partes reexamination, and Defendants submit that all claims currently stand rejected. (Dkt. No. 203 at 3; see id., Ex. 7, 2/19/2014 Appellant's Corrected Brief in Inter Partes Reexamination at 2.)

The ' 115 Patent is the subject of a pending request for Covered Business Method review. (See Dkt. No. 198 at 3.)

## LEGAL PRINCIPLES

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

In general, prior claim construction proceedings involving the same patents-in-suit are "entitled to reasoned deference under the broad principals of stare decisis and the goals articulated by the Supreme Court in Markman, even though stare decisis may not be applicable per se." Maurice Mitchell Innovations, LP v. Intel Corp., No. 2:04-CV-450, 2006 WL 1751779, at *4 (E.D. Tex. June 21, 2006). The Court nonetheless conducts an independent evaluation
during claim construction proceedings. See, e.g., Texas Instruments, Inc. v. Linear Techs. Corp., 182 F. Supp. 2d 580, 589-90 (E.D. Tex. 2002); Burns, Morris \& Stewart Ltd. P'ship v. Masonite Int'l Corp., 401 F. Supp. 2d 692, 697 (E.D. Tex. 2005); Negotiated Data Solutions, Inc. v. Apple, Inc., No. 2:11-CV-390, 2012 WL 6494240, at *5 (E.D. Tex. Dec. 13, 2012).

## THE PARTIES' STIPULATED TERMS

The parties have reached agreement on a construction for one group of terms, as stated in their May 21, 2014 Joint Claim Construction and Prehearing Statement (Dkt. No. 193, Ex. A). The parties' agreement is set forth in Appendix A to this Claim Construction Memorandum and Order.

## CONSTRUCTION OF DISPUTED TERMS

The parties' briefs present different orderings of the disputed terms. Rather than attempt to divine an ideal ordering for the disputed terms, the Court adopts the ordering presented by Plaintiff.

Also, although Defendants have repeatedly cited the deposition testimony of some of the named inventors of the patents-in-suit, that testimony does not significantly affect the Court's analysis here. 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").

Finally, shortly before the start of the August 13, 2014 hearing, the Court provided the parties with preliminary constructions of the disputed terms with the aim of focusing the parties' arguments and facilitating discussion. Those preliminary constructions are set forth within the discussion of each term, below.

## A. "operating environment information," "information relating to operating environment," and "operating environment"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| "information relating to the client computer's <br> operating system, user interface, accessibility, <br> or hardware capabilities" | "information about a client computer's <br> operating system, user interface and hardware <br> capabilities" |

(Dkt. No. 198 at 3; Dkt. No. 203, Ex. 1 at 1.) The parties submit that these disputed terms appear in Claims 1 and 77 (and all claims depending therefrom) of the ' 745 Patent and Claims 1, 15, and 29 (and all claims depending therefrom) of the ' 838 Patent. (Dkt. No. 193, Ex. B at 5.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "information about a client computer's operating system, user interface, or hardware capabilities."

## (1) The Parties' Positions

Plaintiff argues that the patentee defined the disputed term as referring to one or more of the four types of information set forth in Plaintiff's proposed construction. (Dkt. No. 198 at 4.) Plaintiff therefore submits that Defendants err by failing to include accessibility as well as by requiring all of the three types of information Defendants have listed. (Id.) Plaintiff also argues claim differentiation as to Claims 27 and 76 of the ' 745 Patent, which refer to "operating system and hardware capabilities of the client computer." (Id.)

Defendants respond that their proposed construction is "the same as the construction adopted by Judge McMahon in SDNY" after considering the same arguments that Plaintiff has presented again here. (Dkt. No. 203 at 8.) As to Plaintiff's claim differentiation argument, Defendants respond that "claim differentiation is merely a presumption, not a hard and fast rule." (Id. at 9.) Defendants also note that "claims 27 and 76 were added during the re-examination of the '745 Patent," after the scope of the term "application" became an issue in Adobe. (Id.
at 9-10.) Along these lines, Defendants submit that "a re-examination of a patent cannot broaden the claims." (Id. at 10.) Further, Defendants argue, "accessibility" does not appear in the patents-in-suit and "it is unclear what [Plaintiff] means by 'accessibility' or what information [Plaintiff] contends is related to 'accessibility.'" (Id.) Finally, Defendants argue that "[t]he intrinsic record, which describes only one combination (operating system, user interface, and hardware capabilities), does not support such a broad and undefined construction" as proposed by Plaintiff. (Id. (emphasis added).)

Plaintiff replies by reiterating its opening arguments. (See Dkt. No. 205 at 4-5.)

## (2) Analysis

The parties dispute two issues: first, whether "accessibility" should be included in the construction; and second, whether the information must pertain to the "operating system," "user interface" and "hardware capabilities" (and "accessibility," if included) or, instead, need only pertain to one or more of these.

As to the first issue, the intrinsic evidence contains no persuasive support for Plaintiff's proposal of "accessibility." The Southern District of New York reached the same conclusion in E*Trade. (Dkt. No. 198, Ex. G at 13-14 ("[Plaintiff] did not include the word 'accessibility' in the specification's discussion of what it meant by 'operating environment,' and neither will this court - although I note that user interface and hardware capabilities will obviously have the effect of making the operating environment more or less accessible.").) Plaintiff's proposal of "accessibility" is according hereby rejected.

As to the second issue, $E^{*}$ Trade found: "The patentee defined the term 'operating environment' to include three things: the client computer's operating system, user interface and hardware capabilities." (Id. at 13-14 (citing ‘745 Patent at 11:38-40); see id. at 14 ("The
connector in the specification is 'and,' not 'or,' and that is entirely understandable, as information about both hardware and other capabilities is necessary to enable the appropriate presentation of the application or information that the interactive link retrieved. (['745 Patent] at 9:4-16)[.] [Plaintiff] wants me to use the connector 'or' when I define this term for the jury, but I believe 'and' is more appropriate and consistent with the intrinsic evidence.").)
$E * T r a d e$ therefore construed "operating environment information" and "information relating to the operating environment" to mean "information about a client computer's operating system, user interface and hardware capabilities." (Id. at 14 (emphasis added).)

When the Court considers a prior claim construction, the Court considers that different parties may raise different arguments and may highlight different evidence. Sometimes the Court adopts the prior construction, and other times the Court reaches a different conclusion. The Court therefore turns to an analysis of the evidence and arguments presented in the parties' briefing and at the August 13, 2014 hearing.

Claim 1 of the ' 745 Patent is representative and recites that the presentation of an application is "based upon . . presentation[] information," and "presentation information" is "based on" "information relating to the operating environment of the client computer" (emphasis added):

1. In a network configured computer processing system having a plurality of client computers and a plurality of host computers, a method for delivering interactive links for presenting applications and information from remote sources on the network, the method comprising:
retrieving, in response to a request of a client computer, over a first communication connection first information having computer program code embedded therein and executing the embedded computer program code for establishing a second communication connection to a second host computer; sending second information relating to the operating environment of the client computer, from the client computer to the second host computer;
retrieving, over the second communication connection, third information including presentation information for presenting an application and fourth information, the presentation information being based on the second information; presenting, at the client computer, the application and the fourth information based upon the presentational information; and storing, on the client computer, an interactive link for selectively reestablishing the second communication connection to the second host computer for retrieving the third information and presenting the application and the fourth information.

The specification discloses:
In accordance with the present invention, droplets ${ }^{\mathrm{TM}}$ (e.g., the droplets 64 and 70) are dynamic and "thin" applications. That is, the droplets ${ }^{\mathrm{TM}}$ generally include information identifying the operating environment on the client computer 20 , the application server 40 to connect with and an application on the server 40 that is run to deliver the requested functionality to the client computer 20 once the connection is made. The information identifying the operating environment on the client computers 20 provides information to the application server 40 regarding the operating system and hardware capabilities of the particular client computer 20 that requested the droplet-enabled content 36 . That is, the plurality of client computers 20 may include computer workstations, personal computers and portable devices such as, for example, laptop and notebook computers, PalmPilots and internet-enabled radio telephones. As is apparent to those in the art, each such device platform includes differing user interfaces. As such, not all client computers 20 are capable of presenting for example, full color, highresolution graphics. By providing the operating environment of the requesting client computer 20 to the application server 40 , the application server 40 provides information 43 to present the requested applications 41 on the client computer 20. The information 43 includes, for example, instructions 42 for rendering graphical objects within the presented applications 41, default parameters or data values 44 displayed within the applications 41 and application-specific business logic 46 for processing inputs to the applications 41 .

In accordance with one aspect of the present invention, a droplet application developer creates droplet-enabled applications or served [sic] versions of each application for presenting particular functionality to client computers having differing user interface ("UI") requirements. For example, a droplet-enabled email application may be implemented a number of ways such that a first version may operate on a personal computer having capabilities for providing full color, high-resolution graphics and a second version for operating on an internet-enabled radio telephone having only text-processing capabilities. In accordance with this aspect of the present invention, a droplet communicates one of the differing client environments and, in particular, client UI requirements, to the application server 40 which automatically provides, for example, the first version to a requesting personal computer and the second version to the requesting radio telephone.

Alternatively, the droplet ${ }^{T M}$ could determine UI requirements from the client operating system or other locally stored data.
***

Whether in a web based or stand-alone implementation, the information 43, that is, instructions 42 for rendering graphical objects within the delivered dropletenabled applications 41 , default parameters or data values 44 displayed within the droplet-enabled applications 41 and application-specific business logic 46 for processing inputs to the droplet-enabled applications 41, is provided by the application server 40, in accordance with the operating environment of the requesting client (e.g., the client computer's operating system, user interface and hardware capabilities).
***

As discussed above, the information identifying a client computer's operating environment provides the application server 40 a means for presenting a dropletenabled application having a user interface customized to the capabilities of the client computer's operating systems and hardware.
'745 Patent at 8:56-9:36, 11:31-40 \& 13:28-32 (emphasis added).

This disclosure of the "operating environment of the requesting client (e.g., the client computer's operating system, user interface and hardware capabilities)" introduces the parenthetical with "e.g.," not "i.e." or some other definitional expression. Id. at 11:38-40 (emphasis added); see, e.g., Abbott Labs. v. Novopharm Ltd., 323 F.3d 1324, 1327, 1330 (Fed. Cir. 2003) (finding that the patentee used "i.e." to define a term not known in the art at the relevant time).

Because "e.g." means "for example," requiring all three of the examples proposed by Defendants would improperly limit the claims to a preferred embodiment. See Comark, 156 F.3d at 1187; accord Phillips, 415 F.3d at 1323.

Finally, Claims 27 and 76 of the ' 745 Patent recite:
27. The method as claimed in claim 1, wherein the second information relating to the operating environment of the client computer further includes information regarding an operating system and hardware capabilities of the client computer.
76. The computer processing system as claimed in claim 26 , wherein the second information relating to the operating environment of the client computer further includes information regarding an operating system and hardware capabilities of the client computer.

Claims 27 and 76 of the ' 745 Patent thus further reinforce that the term "operating environment information" does not necessarily include all three of the types of information set forth in the example in the specification. See Phillips, 415 F.3d at 1315 ("[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim."); see also Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004) ("[W]here the limitation that is sought to be 'read into' an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest."); Wenger Mfg., Inc. v. Coating Mach. Sys., Inc., 239 F.3d 1225, 1233 (Fed. Cir. 2001) ("Claim differentiation, while often argued to be controlling when it does not apply, is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims.").

Defendants submit that the doctrine of claim differentiation is "not a hard and fast rule" and that the patentee added the claims at issue after the present dispute took shape during the claim construction proceedings in Adobe in 2008. (See Dkt. No. 203 at 9; see also Dkt. No. 198, Ex. K, 7/2/2009 Amendment at 9 \& 16 (adding Claims 27 and 76).) As discussed at the August 13, 2014 hearing, neither side has presented case law bearing on the weight that claim differentiation should be afforded in the context of later-added claims in such circumstances. Nonetheless, claim differentiation reinforces, as evident from the above-quoted portions of the
specification, that the patentee used "e.g." to introduce a disjunctive list of types of operating environment information.

The Court accordingly hereby construes "operating environment information," "information relating to operating environment," and "operating environment" to mean "information about a client computer's operating system, user interface, or hardware capabilities."

## B. "client device information"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| "information related to the capabilities of the <br> client device" | "information about a client computer's <br> operating system, user interface and hardware <br> capabilities" |

(Dkt. No. 198 at 5; Dkt. No. 203, Ex. 1 at 2.) The parties submit that this disputed term appears in all asserted claims of the ' 115 Patent. (Dkt. No. 193, Ex. B at 24.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "information about a client computer's operating system, user interface, or hardware capabilities."

## (1) The Parties' Positions

Plaintiff argues that Defendants err by presenting the same construction for this disputed term as for the "operating environment information" terms, discussed above, which Plaintiff argues are used in a manner distinct from "client device information." (Dkt. No. 198 at 5.)

Defendants respond that " $[t]$ he term 'client device information' appears only in the independent claims of the later filed '115 Patent, which describes the client device platform in terms of the 'operating environment' information." (Dkt. No. 203 at 11.) Defendants explain that "the only information defined in the specification related to the 'client device' platform is
the same information that comprises the 'operating environment' information, and should be construed in the same way." Id. Finally, Defendants argue that Plaintiff's proposed construction "merely rephrases the claim term, which does not clarify the meaning of 'client device information,' nor settle the dispute regarding the proper scope of the term." (Id.)

Plaintiff replies: "Defendants do not argue disclaimer or that the inventors acted as their own lexicographer for this term; the term should therefore be given its plain and ordinary meaning, encompassing the intrinsic record's broad description." (Dkt. No. 205 at 5.)

## (2) Analysis

The specification repeatedly refers to the "operating environment" on the "client

## computer":

In accordance with the present invention, droplets ${ }^{\mathrm{TM}}$ (e.g., the droplets 64 and 70) are dynamic and "thin" applications. That is, the droplets ${ }^{\mathrm{TM}}$ generally include information identifying the operating environment on the client computer 20 , the application server 40 to connect with and an application on the server 40 that is run to deliver the requested functionality to the client computer 20 once the connection is made. The information identifying the operating environment on the client computers 20 provides information to the application server 40 regarding the operating system and hardware capabilities of the particular client computer 20 that requested the droplet-enabled content 36 . That is, the plurality of client computers 20 may include computer workstations, personal computers and portable devices such as, for example, laptop and notebook computers, PalmPilots and internet-enabled radio telephones. As is apparent to those in the art, each such device platform includes differing user interfaces. As such, not all client computers 20 are capable of presenting for example, full color, highresolution graphics. By providing the operating environment of the requesting client computer 20 to the application server 40 , the application server 40 provides information 43 to present the requested applications 41 on the client computer 20. The information 43 includes, for example, instructions 42 for rendering graphical objects within the presented applications 41, default parameters or data values 44 displayed within the applications 41 and application-specific business logic 46 for processing inputs to the applications 41 .
'745 Patent at 8:56-9:17 (emphasis added).

On one hand, "[t]here is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims." Comark, 156 F.3d at 1187 (quoting Tandon Corp. v. Int'l Trade Comm'n, 831 F.2d 1017, 1023 (Fed. Cir. 1987)); see CAE Screenplates Inc. v. Heinrich Fiedler GmbH \& Co. KG, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.").

On the other hand, "practice has long recognized that claims may be multiplied . . . to define the metes and bounds of the invention in a variety of different ways." Tandon, 831 F.3d at 1023 (citation and internal quotation marks omitted). Thus, where the different terms at issue are used in different claims rather than the same claims, any presumption of different meanings is not at its strongest. See Bancorp Servs., L.L.C. v. Hartford Life Ins. Co., 359 F.3d 1367, 1373 (Fed. Cir. 2004) ("[T]he use of [two] terms in close proximity in the same claim gives rise to an inference that a different meaning should be assigned to each. That inference, however, is not conclusive; it is not unknown for different words to be used to express similar concepts, even though it may be poor drafting practice.") (emphasis added).

Further, the claims of the ' 115 Patent use "client device information" in the same manner that "operating environment information," addressed above, is used in the other patents-in-suit.

For example, Claims 1 and 9 of the ' 115 Patent recite (emphasis added):

1. A computerized method for delivering interactivity over the web to a client device from a remotely stored application residing on a server, the method comprising:
in response to receiving a request for a web page from the client device, serving a web page to the client device, the web page having executable code embedded therein which, when executed in a web browser running on the client device, communicates messages with the remotely stored application on the server, the web page further having user interface information for presenting within the web browser a user interface for the remotely stored application;
receiving an event message from the executable code on the client device, the event message reporting an action taken within one or more screen components in the user interface through the client device;
executing application logic within the remotely stored application on the server to generate data values based on the action reported in the event message and client device information; and
sending to the client device an update message with at least some of the generated data values and instructions for use by the executable code to present the data values within the user interface of the web page at the client device.
***
2. The method of claim 1, wherein executing application logic comprises generating data values based on the client device information comprising information representing hardware, software and/or user interface capabilities of the client device.

Also of note, Claim 29 of the ' 838 Patent recites, in relevant part, "operating system environment information" transmitted from a "client device":
29. A system for presenting an application in a networked computer processing system having a plurality of client computers and a plurality of host computers, the system comprising:
a presentation client executing at a client device operative to transmit operating system environment information to the application server, receive presentation instructions from the application server to display one or more content items, transmit one or more events to the application server, receive updated presentation instructions from the application server to display the application and one or more updated content items in accordance with the updated presentation information and maintain an operating state of the application; and
the application server operative to transmit presentation information to the presentation client for display of the application, the one or more content items and the one or more updated content items on the basis of the operating system environment information, execute application specific business logic on the basis of the one or more events to generate the updated presentation instructions for transmission to the client player.

Particularly in light of the absence of anything in the written description suggesting that
"client device information" has a meaning any different than "operating environment information," the Court concludes that the patents-in-suit use these terms interchangeably. To whatever extent this construction renders above-quoted Claim 9 of the ' 115 Patent superfluous,
the doctrine of claim differentiation does not outweigh the patentee's interchangeable use of "client device information" and "operating environment information" here. See N. Am. Vaccine, Inc. v. Am. Cyanamid Co., 7 F.3d 1571, 1577 (Fed. Cir. 1993) ("While it is true that dependent claims can aid in interpreting the scope of claims from which they depend, they are only an aid to interpretation and are not conclusive. The dependent claim tail cannot wag the independent claim dog.").

The Court accordingly hereby construes "client device information" to mean "information about a client computer's operating system, user interface, or hardware capabilities."
C. "real-time pull of update information"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "periodic, automatic requests for update <br> information transmitted from the client |
| In the alternative, to the extent a construction is <br> deemed necessary, this term should be <br> construed to mean: <br> "information that is updated upon request to the application server" <br> by the client" |  |

(Dkt. No. 198 at 6; Dkt. No. 203, Ex. 1 at 4.) The parties submit that this disputed term appears in Claims 33 and 82 (and all claims depending therefrom) of the ' 745 Patent. (Dkt. No. 193, Ex. B at 14.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "an information update upon request by the client."

## (1) The Parties' Positions

Plaintiff submits that "[n]o construction is necessary for this term, as a juror would understand its meaning, particularly in the context of the claims." (Dkt. No. 198 at 6.) Plaintiff
also argues that Defendants import "periodic" and "automatic" limitations from a preferred embodiment. (Id. at 7.) Further, Plaintiff argues, Defendants' proposal is unclear and is redundant of other claim language. (Id. at $6 \&$ n.5.)

Defendants respond that "[w]here a patentee defines a term, even when that definition is provided in the context of an embodiment, that definition governs." (Dkt. No. 203 at 26 (citing Edwards Lifesciences LLC v. Cook Inc., 582 F.3d 1322, 1334 (Fed. Cir. 2009)).)

Plaintiff replies that "Defendants' proposal wrongly attempts to read a single embodiment of the invention into the construction of the disputed claim . . . ." (Dkt. No. 205 at 10.)

At the August 13, 2014 hearing, Defendants disagreed with the Court's preliminary construction and alternatively proposed: "an automatic, periodic information update request by the client computer." Plaintiff responded by reiterating that the portion of the specification cited by Defendants relates to an example rather than to the invention as a whole. Defendants replied that what they have cited are the only disclosures relevant to the disputed term.

## (2) Analysis

Claim 33 of the ' 745 Patent is representative and depends from Claim 32, which in turn depends from Claim 1. Claims 1, 32, and 33 recite (emphasis added):

1. In a network configured computer processing system having a plurality of client computers and a plurality of host computers, a method for delivering interactive links for presenting applications and information from remote sources on the network, the method comprising:
retrieving, in response to a request of a client computer, over a first communication connection first information having computer program code embedded therein and executing the embedded computer program code for establishing a second communication connection to a second host computer;
sending second information relating to the operating environment of the client computer, from the client computer to the second host computer;
retrieving, over the second communication connection, third information including presentation information for presenting an application and fourth information, the presentation information being based on the second information; presenting, at the client computer, the application and the fourth information based upon the presentational information; and storing, on the client computer, an interactive link for selectively reestablishing the second communication connection to the second host computer for retrieving the third information and presenting the application and the fourth information.
***
2. The method as claimed in claim 1 , wherein the second communication connection is a non-continuous communication connection.
3. The method as claimed in claim 32, wherein a real-time pull of update information is retrieved from the second host computer by the client computer.

On one hand, the specification refers to an "automatic" "pull type messaging mechanism" that "periodically request[s] update information":

In another embodiment wherein, for example, a firewall or proxy server security platform does not permit the continuous open socket connections, a request for updates is periodically transmitted by the client computer 20 to the application server 40. The automatic pseudo-real-time messaging strategy embodies a pull type messaging mechanism. It should be appreciated that the system 10 seamlessly implements this update messaging mechanism by first attempting the real-time push of update information, and if the application server 40 is not permitted to maintain an open connection communication channel, the server 40 informs the client computer 20 to employ the pull-type messaging mechanism by periodically requesting update information. In each of the above-described messaging schemes, the user at the client computer 20 receives the update information without manually requesting a refresh of the information.

Id. at 12:67-13:16 (emphasis added).
On the other hand, the above-quoted disclosure pertains to a particular embodiment.
Even though, as Defendants have submitted, a lexicography set forth in the context of a particular embodiment may apply to all embodiments, see Edwards Lifesciences, 582 F.3d at 1334, as a threshold matter Defendants have failed to establish any lexicography. See, e.g.,

CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002) ("[T]he claim term
will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly
set forth a definition . . . .") (emphasis added).
Further, the specification also discloses a "real-time push/pull messaging scheme" that is not described with reference to periodic or automatic requests:

In accordance with one aspect of the present invention, a network communication protocol is defined for transmitting information between the droplet-enabled applications 41 and the application server 40 . The protocol includes a number of message formats wherein properties of and events pertaining to components, such as the GUI components, of actively operating droplet-enabled applications 41 are communicated between the client computer 20 and the application server 40 . The message formats include, for example:

1. Event Notifications-messages transmitted from a client computer 20 to the application server 40 reporting that a value or attribute of a component of the GUI has been altered. Events include, for example, data entry into text boxes and drop-down lists of the GUI, selection ("clicking") of GUI components such as radio and command buttons. Messages are also transmitted in response to other pointing device or keyboard driven actions such as, for example, drag and drop events as an e-mail message is moved to a folder within a droplet-enabled e-mail application.
2. Update Commands-messages transmitted from application drivers, e.g., the application specific logic 46 supporting a droplet-enabled application, on the application server 40 to the client computer 20 requesting action within screen components of the system 10 , such as GUI components within the delivered content.
***

The above described communication protocol and message formats provide a real-time push/pull messaging scheme between the user interface, and GUI components included therein, of an active droplet-enabled application presented on client computer and application drivers supporting the user interface from the application server 40. For example, an executing droplet-enabled application such as the Stock Watcher application 100 receives real-time information such as revised stock prices or shares available for trading as they are posted by an issuing agency. The user need not manually request a refresh of GUI components presenting the pricing and availability information, rather the client computer automatically receives the real-time updates to the components as the dropletenabled application runs on the application server 40.
'745 Patent at 11:61-12:64 (emphasis added). Notably, this reference to "automatically receiv[ing] the real-time updates" is disclosed in the context of a "real-time push/pull messaging scheme" rather than a "real-time pull of update information."

As to extrinsic evidence, Plaintiff has cited a technical dictionary definition of "pull" as: "The process of retrieving data from a network server. Compare push . . . ." (Dkt. No. 198, Ex. J, Microsoft Press Computer Dictionary 389 (3d ed. 1997).)

On balance, nothing in the intrinsic or extrinsic evidence demands that a "real-time pull of update information" must be automatic or periodic. Defendants' proposal in that regard would improperly limit the claims to a particular embodiment and is therefore hereby expressly rejected. See Comark, 156 F.3d at 1187; accord Phillips, 415 F.3d at 1323.

Finally, although Plaintiff proposes that no construction is necessary, construction is appropriate to assist the finder of fact in understanding the meaning of "pull," a common word that is here being used according to its meaning in a specific technical context. See Power-One, Inc. v. Artesyn Techs., Inc., 599 F.3d 1343, 1348 (Fed. Cir. 2010) ("The terms, as construed by the court, must ensure that the jury fully understands the court's claim construction rulings and what the patentee covered by the claims.") (citation and internal quotation marks omitted).

The Court therefore hereby construes "real-time pull of update information" to mean "an information update upon request by the client."

## D. "global unique identifier"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "a unique value identifying each unique <br> instance of an application displayed at a client <br> computer" |
| In the alternative, to the extent a construction is <br> deemed necessary, this term should be <br> construed to mean: <br> "identification information for <br> distinguishing between [interactive <br> links/links]" |  |

(Dkt. No. 198 at 7; Dkt. No. 203, Ex. 1 at 4.) The parties submitted that this disputed term appears in Claims 43 and 92 (and all claims depending therefrom) of the ' 745 Patent and Claim 11 (and all claims depending therefrom) of the '838 Patent. (Dkt. No. 193, Ex. B at 13-14.)

In their August 7, 2014 Joint Claim Construction Chart Pursuant to P.R. 4-5(d), the parties stated that "[p]ursuant to Droplets' Notice of Final Election of Asserted Claims (dkt. 208), the term 'global unique identifier' is no longer disputed." (Dkt. No. 211 at 1 n .1.$)$

The Court therefore does not construe the term "global unique identifier."
E. "presentation client program code" and "presentation client"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| "software, running on the client, that is capable <br> of receiving user input and presenting remotely <br> stored applications to users" | "a generic application program, capable of <br> cooperating with a web browser when in a <br> web-based environment or with stand-alone <br> software in non-web-based environments, that |
|  | processes user interface specifications received <br> from the application server and routes user <br> driven events back to the application server" |

(Dkt. No. 198 at 8; Dkt. No. 203, Ex. 1 at 2.) The parties submit that these disputed terms appear in Claim 26 (and all claims depending therefrom) of the ' 745 Patent and Claim 29 (and all claims depending therefrom) of the ' 838 Patent. (Dkt. No. 193, Ex. B at 11-12.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "software, running on the client, that can present remotely stored applications and that can transmit user input to remotely stored applications."

## (1) The Parties' Positions

Plaintiff submits that "[ [] he patentees acted as their own lexicographer for this term, broadly defining various aspects of a 'presentation client.'" (Dkt. No. 198 at 8.) Plaintiff also argues that Defendants' proposals "include unnecessary wordiness and confusion." (Id.) Finally, Plaintiff argues that "[b]ecause the proper construction may be easily resolved by intrinsic evidence, there is no need to resort to extrinsic evidence; thus, Defendants' extrinsic evidence should be disregarded." (Id. at 9.)

Defendants respond that they propose the construction reached by the Southern District of New York in $E^{*}$ Trade, which Defendants argue is consistent with the express definition set forth in the specification. (Dkt. No. 203 at 14.)

Plaintiff replies: "Defendants argue that one statement from the specification, in isolation, should form the construction of this term. [Dkt. No. 203] at 14-15. But the specification explains that the presentation client is software that (1) runs on the client (['745 Patent at] 6:24-27); (2) presents applications (id. at 27:11-17); and (3) receives user input (id. at 10:59-64)." (Dkt. No. 205 at 6 (footnote omitted).)

At the August 13, 2014 hearing, Defendants proposed adding the phrase "platform independent" to the beginning of the Court's preliminary construction. Plaintiff responded that it was not strongly opposed to including the phrase "platform independent."
(2) Analysis

In $E^{*}$ Trade, the Southern District of New York found:

The specification contains a single sentence definition of "presentation client" and it is this: "In accordance with the present invention, the presentation client 25 is a generic, platform independent application program that processes user interface specifications received from the application server 40 and routes user driven events back to the application server 40 using message formats (e.g., event notification and session commands) discussed above." ([‘745 Patent] at 27:11-17). Unfortunately, this definition cannot be comprehended by a lay juror unless the parties define the term "platform independent." E-Trade does this when it argues that platform independent software is software that will "cooperate with" a web browser when in a web-based environment or with stand-alone software in non-web-based environments. The phrase "cooperates with" comes directly from the specification's discussion of how the presentation client interfaces with web browsers (Id. at 10:59-64, 11:6-13; 27:23-25).
***

I will define this term as: "a generic application program, capable of cooperating with a web browser when in a web-based environment or with stand-alone software in non-web-based environments, that processes user interface specifications received from the application server and routes user driven events back to the application server."
(Dkt. No. 198, Ex. G at 15-16 (emphasis modified).)
The Summary of the Invention states:
The presentational client program code, utilizing the communication connection, presents functionality of the remotely stored applications and information on the requesting client computer.
'745 Patent at 6:24-27. The specification likewise discloses presenting remotely stored
applications to users and receiving user input:
In the web based implementation, the droplets ${ }^{\mathrm{TM}}$ cooperate with the droplet presentation client 25 and the web browser running on the client computer 20 to establish the communication connection 54 to the application server 40 and to present the droplet-enabled applications 41 and information 43 on the web page.

*     *         * 

As discussed above, droplet-enabled client computers 20 include the droplet presentation client 25. In accordance with the present invention, the presentation client 25 is a generic, platform independent application program that processes user interface specifications received from the application server 40 and routes
user driven events back to the application server 40 utilizing the message formats (e.g., event notification and session commands) discussed above.
'745 Patent at 10:59-64 \& 27:10-17 (emphasis added).
The specification further discloses as to platform independence:
As the droplet presentation client 25 is platform independent, one instance of the droplet presentation client 25 can execute all instances of droplet-enabled applications whether downloaded from a web page or a standalone application running on the desktop.

Id. at 27:17-21; see id. at 11:14-21 ("web browser or stand-alone software program"), 11:31-40 ("web based or stand-alone implementation"), 12:31-37 (similar) \& 13:49-55 (similar).

On balance, the above-quoted purported definition of "presentation client" is disclosed merely as part of a preferred embodiment. In particular, the disclosure refers to a "presentation client" "[i]n accordance with the present invention," not that the "presentation client" must always be as described in column 27, lines 10-17 of the ' 745 Patent. Moreover, this passage refers to "presentation client 25 ," wherein " 25 " is a reference numeral referring to an element of a specific embodiment. See '745 Patent at Fig. 1. Defendants have therefore failed to establish a clear lexicography. See, e.g., CCS Fitness, 288 F.3d at 1366 ("[T]he claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition. . . .") (emphasis added).

Finally, the claims themselves include specific limitations regarding the "presentation
client." Claim 26 of the ' 745 Patent recites (emphasis added):
26. A computer processing system, comprising:
a plurality of client computers;
a plurality of server computers;
a network operatively coupling said plurality of client computers to said plurality of server computers; and computer program code for presenting over said network, in response to a selection of an interactive link, applications and first information stored in a first of said plurality of server computers, said computer program code comprising:
a plurality of computer program code segments embedded with informational content stored at a second of said plurality of server computers and delivered to a requesting one of said plurality of client computers; an operating system program code segment, one executable at each of said plurality of client computers; and a plurality of presentation client computer program code segments, one executable at each of said plurality of client computers, for retrieving presentational information and presenting at each of said client computers, in cooperation with said operating system computer program code segment, said applications and said first information based on said presentational information.

Claim 29 of the '838 Patent recites (emphasis added):
29. A system for presenting an application in a networked computer processing system having a plurality of client computers and a plurality of host computers, the system comprising:
a presentation client executing at a client device operative to transmit operating system environment information to the application server, receive presentation instructions from the application server to display one or more content items, transmit one or more events to the application server, receive updated presentation instructions from the application server to display the application and one or more updated content items in accordance with the updated presentation information and maintain an operating state of the application; and
the application server operative to transmit presentation information to the presentation client for display of the application, the one or more content items and the one or more updated content items on the basis of the operating system environment information, execute application specific business logic on the basis of the one or more events to generate the updated presentation instructions for transmission to the client player.

Because of the absence of a clear lexicography, and based on the context provided by the surrounding claim language as well as the common ground in the parties' proposed constructions, the Court rejects Defendants' proposed construction.

Nonetheless, the above-quoted disclosures, as well as the above-quoted findings in $E * T r a d e$, weigh in favor of finding that the disputed terms refer to a "platform independent" program. As noted above, at the August 13, 2014 hearing Plaintiff voiced no substantial opposition to Defendants' proposal in that regard.

The Court therefore hereby construes "presentation client program code" and "presentation client" to mean "platform independent software, running on a client, that can present remotely stored applications and that can transmit user input to remotely stored applications."
F. "application"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| "software that performs work for a user" | "a software program that executes specific <br> tasks for the end user that does more than <br> generate or retrieve dynamic information in <br> response to HTTP requests" |

(Dkt. No. 198 at 9; Dkt. No. 203, Ex. 1 at 1.) The parties submit that this disputed term appears in all asserted claims of the '745 Patent and the '838 Patent. (Dkt. No. 193, Ex. B at 1.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "a software program that executes specific tasks for an end user."

## (1) The Parties' Positions

Plaintiff argues that whereas Defendants' proposal is based on statements from the reexamination of the '838 Patent, "no clear disavowal was made." (Dkt. No. 198 at 10.) Instead, Plaintiff submits, "[n]othing in the intrinsic record limits the type of encoding/decoding that an 'application' may perform." (Id.)

Defendants submit that their proposed construction "is the construction adopted by Judge McMahon in the SDNY, with additional clarification based on admissions made by [Plaintiff] during re-examination of the ' 838 patent, but after completion of claim construction in the SDNY." (Dkt. No. 203 at 4.) Defendants explain that Plaintiff "has consistently distinguished its invention from the prior art on the basis that the prior art systems operated using intermediate
web servers that received HTTP requests that were then routed to an application." (Id.) Defendants argue that although Plaintiff has argued that this prosecution history pertained to the term "communication connection," "the 'communication connection' between the client and server is a necessary component of the claimed application." (Id. at 6.) Finally, Defendants similarly cite the prosecution history of the ' 115 Patent. (See id. at 7.)

Plaintiff replies by attaching the "ArcView" reference addressed in the reexamination prosecution history of the ' 838 Patent relied upon by Defendants. (Dkt. No. 205, Ex. W, ArcView Internet Map Server (1997).) Plaintiff argues that there has been no disclaimer as to the term "application" because, first, the prosecution history relates to a different term. (Dkt. No. 205 at 2-3.) Second, Plaintiff argues that it distinguished ArcView as being "stateless" rather than based on anything related to HTTP requests. (Id. at 3.) Plaintiff explains that "[u]nlike ArcView, the communication connection of the ' 838 patent includes interaction because the ' 838 patent maintains information about state-the connection is 'interactive' as each subsequent connection includes information regarding the prior state of the connection." (Id.) Third, Plaintiff argues that " $[\mathrm{b}]$ ecause HTTP-formatted data requests are the primary way the data is transmitted on the web, Defendants' proposed disclaimer excludes the web-based embodiments" disclosed in the '838 Patent. (Id.)

Plaintiff also attaches the "LeMole" reference, United States Patent No. 6,009,410, which is addressed in the prosecution history of the ' 115 Patent. (Dkt. No. 205, Ex. X.) Plaintiff submits that "LeMole did not teach or suggest the '115 patent because in LeMole a user clicked a link and received a pre-packaged advertisement. . . . In contrast, in the ' 115 patent, the user receives 'executable code' that executes on his computer[,] and that 'executable code' in turn has
a series of interactions with a webserver to return and provide the user with access to remotely stored information." (Dkt. No. 205 at 4.)

At the August 13, 2014 hearing, Plaintiff agreed with the Court's preliminary construction. Defendants suggested that if the Court is inclined to adopt its preliminary construction, the Court should append to that construction the phrase "and maintains state."

## (2) Analysis

During reexamination of the ' 745 Patent, Plaintiff stated that "[a]pplications are software programs designed to perform specific tasks for a user" and that "applications relate to software programs that execute tasks and produce outputs as a result of the interaction between information." (Dkt. No. 198, Ex. K, 7/2/2009 Amendment at 51-52.)

E*Trade similarly construed "application" to mean "a software program that executes specific tasks for an end user." (Dkt. No. 198, Ex. G at 8.) The parties are substantially in agreement with this construction except that Defendants argue Plaintiff then made a disclaimer during reexamination.

First, Plaintiff stated as follows regarding the limitation "execution of the embedded computer program code establishing a communication connection to a host computer," with reference to the "ArcView Users Guide" prior art, wherein "ArcView is an Internet map distribution system":

A unitary data call to the web server is not a communication connection.
Moreover, the tiered structure of the web server as the intermediate server and the application itself running on the ArcView server prohibits any communication connection. Execution of the MapCafe applet on the web browser does not establish a connection to the ArcView server. At best, execution of the MapCafe applet generates an HTTP formatted data request for content that is sent to the web server, such that [sic, which] the web server redirects as a data call to the ArcView server.
(Dkt. No. 203, Ex. 7, 2/19/2014 Appellant's Corrected Brief in Inter Partes Reexamination at 39; see id. at 6 \& 36; see also id. at 38 ("The web server is merely an intermediate server for processing the MapCafe instructions and transmitting map content back. The web browser in ArcView is entirely unaware of the existence of [the] ArcView server, only interacting in direct data call operations with the web server.").)

As a threshold matter, this above-quoted prosecution history does not relate to the term "application" but rather relates to "establishing a communication connection to a host computer."

Moreover, Plaintiff has persuasively argued that it distinguished ArcView as disclosing a "stateless" system rather than based on the generation or retrieval of dynamic information in response to HTTP requests. (See, e.g., Dkt. No. 205 at $3 \&$ n.4.) In particular, as part of the same above-quoted discussion in the prosecution history Plaintiff explained as follows:

Page 35, second paragraph of ArcView notes that "ArcView IMS requires stateless client/server communications." These communications are not part of a communication connection as claimed because a connection requires interaction. Rather, "ArcView must completely satisfy each MapCafe request without requiring that any of the user's current state, $\ldots$, be carried over to satisfy the next request. This is because the next request that ArcView receives may come from a completely different user on the web." (Page 35, $\mathbb{T}[2$ ).
(Dkt. No. 203, Ex. 7, 2/19/2014 Appellant's Corrected Brief in Inter Partes Reexamination at 38-39 (emphasis added; ellipsis in original).)

Second, Plaintiff stated as follows regarding the LeMole reference (United States Patent No. $6,009,410$ ) during prosecution of the ' 115 Patent:

As understood, LeMole describes an advertisement selection engine for customizing advertisements for various users. LeMole includes an advertising depository customized for each user and the processing of selection of customized ads through a Customizing Advertising Repository (CAR) server 111. Ads for the user are selected based on the user profile or context of corresponding content on the web page.

LeMole's advertisements are static HTML [(HyperText Markup Language)] code (e.g. text files) consisting of content placed in the visible web page displayed on the user's computer. The advertisements may be active hyperlinked images so when a user clicks on the image, the hyperlink redirects the browser to another web location. LeMole fails to identically disclose (or teach or suggest), among other limitations, the claimed "remotely stored application on the server." In fact, in LeMole's system, there simply is no "remotely stored application on the server" as recited in the present claims. At best, the CAR of LeMole is an advertisement customization routine that intercepts the selection of a hyperlink from the HTML text file as interpreted by the web browser and redirects the hyperlink selection to an appropriate database to configure an appropriate advertisement.
(Dkt. No. 203, Ex. 12, 1/30/2012 Response at 8-9.)
Defendants' argument as to the prosecution history regarding LeMole reference is unpersuasive for substantially the same reasons as regarding the ArcView reference, discussed above, in particular because the patentee distinguished LeMole as lacking interaction.

Defendants have therefore failed to establish any clear and unmistakable disclaimer. See Golight, Inc. v. Wal-Mart Stores, Inc., 355 F.3d 1327, 1332 (Fed. Cir. 2004) ("Because the statements in the prosecution history are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable departure from the ordinary meaning of the term 'rotating.'"); see also 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); cf. id. at 1330 ("[T]here is more than one reasonable basis for the amendment, rendering the intent underlying the amendment ambiguous
and thus negating the possibility of the disclaimer being unmistakable."). Defendants' proposed disclaimer is therefore hereby expressly rejected.

Finally, as to extrinsic evidence, in the Adobe case Plaintiff cited a technical dictionary definition of "application" as meaning "a collection of software components used to perform specific types of user-oriented work on a computer." See Dkt. No. 198, Ex. M, Plaintiff Droplets, Inc.'s Rebuttal Markman Brief per Local Patent Rule 4-5(c) at 10 (citing IBM Dictionary of Computing 27 (10th ed. 1994)). This definition is consistent with the abovequoted construction reached in $E^{*}$ Trade.

The Court therefore hereby construes "application" to mean "a software program that executes specific tasks for an end user."
G. "presenting . . . the application," "presenting an application," "display the application," "presenting said invoked application," and "presenting . . . applications"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| "displaying the application and enabling <br> interaction with the user according to the user <br> interface requirements" | "displaying software that executes specific <br> tasks for an end user and enabling the user to <br> interact with that program according to the user <br> interface requirements" |

(Dkt. No. 198 at 11; Dkt. No. 203, Ex. 1 at 2.) The parties submit that these disputed terms appear in all asserted claims of the ' 745 Patent and the ' 838 Patent. (Dkt. No. 193, Ex. B at 15.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "displaying a remotely executing application and enabling the user to interact with that application according to the user interface requirements."

The parties did not present any arguments on these terms at the August 13, 2014 hearing. At the conclusion of the hearing, the Court inquired whether the parties agreed with the Court's
preliminary constructions for terms as to which the parties presented no argument at the hearing. Both sides agreed.

The Court accordingly hereby construes "presenting . . . the application," "presenting an application," "display the application," "presenting said invoked application," and "presenting . . . applications" to mean "displaying a remotely executing application and enabling the user to interact with that application according to the user interface requirements."

## H. "computer program code" and "program code"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "computational instructions executed by a |
| processor to perform an operation" |  |
| In the alternative, to the extent a construction is <br> deemed necessary, this term should be <br> construed to mean: <br> "instructions for a computer to execute" |  |

(Dkt. No. 198 at 12; Dkt. No. 203, Ex. 1 at 2.) The parties submit that these disputed terms appear in all asserted claims of the ' 745 Patent and in Claims 1 and 15 (and all claims depending therefrom) of the '838 Patent. (Dkt. No. 193, Ex. B at 4.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with its preliminary construction that these disputed terms have their plain meaning.

## (1) The Parties' Positions

Plaintiff argues that "‘[c]omputer,' 'program,' and 'code' are common terms that jurors would understand in context, without construction." (Dkt. No. 198 at 12.) Plaintiff also argues that Defendants' proposed construction would render other claim language superfluous. (Id. at 12-13.) Finally, Plaintiff urges that Defendants' proposal is redundant and confusing and that

Defendants' proposal of "processor" "lacks any antecedent basis in the claim[s] or specification." (Id. at 13.)

As to extrinsic evidence, Plaintiff has submitted several technical dictionary definitions of "code," "computer," and "program." (See Dkt. No. 198, Ex. N, Random House Webster's Computer \& Internet Dictionary 99 (3d ed. 1999) ("code": "Written computer instructions"); id. at 112 ("computer": "A programmable machine. The two principal characteristics of a computer are: / It responds to a specific set of instructions in a well-defined manner / It can execute a prerecorded list of instructions (a program)."); id. at 448 ("program": "An organized list of instructions that, when executed, causes the computer to behave in a predetermined manner"); id., Ex. O, Barron's Dictionary of Computer \& Internet Terms 96 (6th ed. 1998) ("computer": "a machine capable of executing instructions on data"); id. at 371 ("program": "a set of instructions for a computer to execute"); id., Ex. J, Microsoft Press Computer Dictionary 96 (3rd ed. 1997) ("code": "Program instructions"); id. at 384 ("program": "A sequence of instructions that can be executed by a computer").)

Defendants respond that Plaintiff "repeatedly defined the 'computer program code' terms during re-examination of the '745 patent." (Dkt. No. 203 at 13.) As to Plaintiff's objection to Defendants' proposal of the word "processor," Defendants respond that "antecedent basis is a requirement for the terms used in a claim, not constructions that define the claim language." (Id. at 14.)

Plaintiff replies: "That 'computer program code’ may include 'computational instructions that instruct a processor to perform an operation' does not mean that 'computer program code' is only 'computational instructions . . .' as Defendants assert." (Dkt. No. 205 at 6.)

At the August 13, 2014 hearing, Defendants urged that Plaintiff is attempting to read this disputed term to refer to anything that a computer does. Defendants argued that "computer program code" must be code for controlling a processor as opposed to controlling something else, such as a web browser. Plaintiff responded that the disputed term is readily understandable and that Defendants' concerns pertain to questions of fact rather than questions of claim construction.

## (2) Analysis

Claim 1 of the ' 745 Patent, for example, recites in relevant part (emphasis added):
"retrieving, in response to a request of a client computer, over a first communication connection first information having computer program code embedded therein and executing the embedded computer program code for establishing a second communication connection to a second host computer."

During reexamination of the ' 745 Patent, Plaintiff stated:
A web address does not teach or suggest the claimed 'embedded computer program code' because a web address is merely a pointer to a location and computer program code includes computational instructions that instruct a processor to perform an operation.
***
[H]yperlinks on a Web page are address references or navigation elements. They are not in and of themselves executable or program code.
(Dkt. No. 203, Ex. 5, 11/17/2008 Amendment at 34 \& 54 (emphasis added); id., Ex. 6, 7/2/2009 Amendment at $34 \& 54$ (same).) As a general matter, Defendants are correct that "[a]s in the case of the specification, a patent applicant may define a term in prosecuting a patent." Home Diagnostics, 381 F.3d at 1356.

On balance, Plaintiff's statement regarding what computer program code "includes" does not amount to a clear lexicography. See, e.g., CCS Fitness, 288 F.3d at 1366 ("[T]he claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition . . . .") (emphasis added). Further, introducing a "processor" and referring to "computational instructions" would tend to confuse rather than clarify the scope of the claims.

Defendants' proposed construction is therefore hereby expressly rejected. Nonetheless, as quoted above, the patentee disclaimed a "web address" or "hyperlinks" as being program code. (See Dkt. No. 203, Ex. 5, 11/17/2008 Amendment at 34 \& 54.)

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

The Court accordingly hereby construes "computer program code" and "program code" to have their plain meaning. As noted above, however, the patentee disclaimed a "web address" or "hyperlinks" as being "computer program code" or "program code."

Finally, as to Defendants' argument at the August 13, 2014 hearing that the disputed terms refer to code for controlling a processor as opposed to controlling something else, for example a web browser, such a distinction is not supported by the intrinsic evidence and would
require applying the Court's construction to particular accused instrumentalities, thus presenting questions of fact for the finder of fact rather than questions of law for claim construction. See PPG Indus. v. Guardian Indus. Corp., 156 F.3d 1351, 1355 (Fed. Cir. 1998) (noting that "the task of determining whether the construed claim reads on the accused product is for the finder of fact").

## I. "interactive link" and "link"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| "interactive link": <br> ""a link and information relating to an <br> operating state of an application" | "computer code that (1) retrieves and presents <br> applications and/or information stored at <br> remote locations across the network when |
| "link": | selected by an end user, and (2) includes <br> "an active field that allows user selection <br> facilities for restoring previous operating states <br> of the application as the application is |
| and performance of an action upon user <br> selection"" | re-presented at a user's computer. An <br> interactive link cannot be a bookmark, cookie, <br> shortcut, hyperlink or Internet address (URL)." |

(Dkt. No. 198 at 13; Dkt. No. 203, Ex. 1 at 3.) The parties submit that these disputed terms appear in all asserted claims of the patents-in-suit. (Dkt. No. 193, Ex. B at $6 \& 8$.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "computer code that: (1) retrieves and presents applications and/or information stored at remote locations across the network when selected by an end user; and (2) includes facilities for restoring previous operating states of the application as the application is re-presented at a user's computer. An interactive link cannot be [a] URL, bookmark, or special browser icon."

## (1) The Parties' Positions

Plaintiff urges that "link" and "interactive link" should be construed differently because whereas the patentee used "interactive link" in the claims of the ' 745 Patent and the ' 115 Patent,
the patentee used "link" in the claims of the '838 Patent. (Dkt. No. 198 at 13-14.) Plaintiff argues that this "intentional change in word choice should be given meaning." (Id. at 14.) Plaintiff also submits that "the usage of 'interactive link' and 'link' in the specification evidences their difference." (Id.)

As to the proper constructions, Plaintiff argues that "[w]ith respect to 'interactive link,' the patentees acted as their own lexicographer." (Id. at 14.) Plaintiff argues that Defendants’ proposal improperly limits "interactive link" to a single embodiment disclosed in the specification. (Id. at 14-15.) Plaintiff submits that whereas Defendants' proposal would always require restoring a previous operating state, "there are situations described in the specification where interactive links are used, even though no such previous operating state existed." (Id. at 15.) Finally, Plaintiff argues that "link" is described broadly by the specification. (Id.)

As to the prosecution history, Plaintiff argues that Defendants' disclaimer argument fails because "the prosecution history merely clarifies that a 'link' cannot be only plain text." (Id. at 17.) Plaintiff also argues that "the 'bookmarks,' 'shortcuts,' 'hyperlinks,' and 'URLs' discussed in the specific pieces of prior art from the prosecution history included only information related to location." (Id. at 18.) Further, Plaintiff submits, '[t]o account for the evolution of words over time, if a disclaimer exists (which it does not), it would necessarily be limited to the allegedly disclaimed terms' meaning in 1999, not today." (Id. at 19.) Finally, Plaintiff argues that "while the patents-in-suit discuss each of 'bookmark,' 'cookie,' 'shortcut,' 'hyperlink,' and 'Internet address' as prior art, ['745 Patent at] 3:35-65, that does not preclude their use in the limitations, terms, and claims of the patents-in-suit." (Id. at 17; see id. at 19-20.)

Defendants respond that "interactive link" and "link" are used interchangeably, and Defendants propose the same construction reached by the Southern District of New York in
$E^{*}$ Trade. (Dkt. No. 203 at 15.) Defendants argue that although Plaintiff cites two instances in which "link" is purportedly used broadly, "those two passages are from the 'Background of the Invention' referring to prior art links, such as hyperlinks, and are not the claimed . . 'link' or 'interactive link' of the alleged invention." (Id. at 16.) Defendants also submit that "[i]n both the '745 and ' 838 Patents, the 'interactive link' and 'link' terms provide the same functionality, i.e., to re-establish the communication connection to the application." (Id. at 17.)

As to the proper construction, Defendants argue that "the 'interactive link' term has a specialized meaning in the context of [Plaintiff's] Patents because the term has no ordinary and customary meaning." (Id. at 19.) Defendants further urge that the prosecution disclaimers found by $E^{*} T$ rade should be given effect here as well. (See id. at 19-21.) Defendants submit that "[e]ven if [Plaintiff] might have made other arguments for distinguishing the asserted art during the re-examination, [Plaintiff] is held as a matter of law to the statements it actually made." (Id. at 21.) Defendants further note that, in Adobe, Plaintiff proposed construing "interactive link" to mean "a data structure, stored outside the browser, selected by the user to directly invoke remotely stored applications." (Id. (citing id., Ex. 13 at 9-11).) Finally, as to Plaintiff's argument that the meanings of terms have changed over time, Defendants respond that $E^{*}$ Trade heard extensive live expert testimony on this issue and found that "the credible evidence indicates that the meaning and understanding of those terms has not changed since 1999, when the provisional application was filed." (Id. at 22 (quoting Dkt. No. 198, Ex. I at 2)); see No. 12 Civ. 2326 (S.D.N.Y.), Dkt. No. 243, 1/15/2014 Hr'g Tr.

Plaintiff replies that in a passage referring to an "interactive link" and then a "link," "a reader understands that . . . the link is the same 'interactive link,'" but this "does not mean that . . . all 'links’ [are] interactive." (Dkt. No. 205 at 6-7.) Plaintiff argues that because the
specification discloses "links" other than "interactive links," "link" and "interactive link" are not interchangeable in the patents-in-suit. (Id. at 7.) As to Defendants' prosecution disclaimer argument, Plaintiff replies that "[u]nder the rubric created in the SDNY Case and advocated by Defendants here[,] the web-based embodiments of the invention are effectively excluded." (Id.) Plaintiff further argues that the prosecution history as a whole "makes plain that the 'bookmarks,' 'shortcuts,' 'hyperlinks,' and 'URLs' discussed in the specific pieces of prior art in the prosecution history included only information related to location and did not include information related to the operating state of the application." (Id. at 8.) Finally, Plaintiff submits that "[t]here has been no showing that [Plaintiff's] prior proposal [in Adobe] is inconsistent with the proposal being advocated here." (Id.)

At the August 13, 2014 hearing, Plaintiff urged that the patentee's disclaimer of "location-only" URLs and bookmarks (at least as those terms were understood at the time of the invention) is already covered by requirement "(2)" in $E^{*}$ Trade and in the Court's preliminary construction, namely the requirement of "facilities for restoring previous operating states of the application as the application is re-presented at a user's computer." Plaintiff submitted that the issue of whether something, today, satisfies requirement "(2)" is a question of fact for the jury.

## (2) Analysis

In $E^{*}$ Trade, the Southern District of New York found:
[I]n connection with the patents in suit the operative term is really not "link" but "interactive link;" and in the term "interactive link," we have a clear case of the patentee acting as his own lexicographer. ${ }^{[\text {n. } 1]}$
[n.1:] Because I believe that the patentee has defined the term "interactive link" separately from the more general term "link," I reject Defendants' argument that the two terms should be conflated. Indeed, as will be seen, the patentee has defined an interactive link in terms of two requirements, the first of which is common to all links, the second of which is apparently peculiar to Droplets' "interactive link."

Defendants are of course correct that a link is by definition "interactive," in that, when an end user clicks, the link responds by taking some action. Put otherwise, a "link" cannot be text that, when selected, is not "actionable" (plain text). However, in the specification, the phrase "interactive link" is used by [the patentee] to describe something quite specific: code that, when selected by an end user, meets two separate requirements:
(1) It retrieves and presents applications and/or information stored at remote locations across the network; and
(2) It includes facilities for restoring previous operating states of the application as the application is re-presented at a user's computer.
[‘745 Patent] at 3:66-4:5.
***

I will thus use the following "core definition" for the term "interactive link:" computer code that (1) retrieves and presents applications and/or information stored at remote locations across the network when selected by an end user, and (2) includes facilities for restoring previous operating states of the application as the application is re-presented at a user's computer.
(Dkt. No. 198, Ex. G at $10 \&$ 11-12 (emphasis omitted).) After subsequent proceedings regarding this term, including live expert testimony, $E^{*}$ Trade gave effect to the reexamination prosecution history of the '745 Patent as including "sweeping statements about why URLs, bookmarks, and special browser icons were not the claimed 'interactive link.'" (Id., Ex. I at 6.) Further, $E^{*}$ Trade emphasized that these disclaimers "were not limited in any way." (Id.) $E *$ Trade adopted the disclaimer that the defendants proposed in that case, which is the same disclaimer sentence that appears in Defendants' proposed construction here.
(a) Whether "link" and "interactive link" are used interchangeably
"The general presumption [is] that different terms have different meanings . . . ." Chi.
Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC, 677 F.3d 1361, 1369 (Fed. Cir. 2012).

On one hand, Plaintiff has cited instances where the specification uses the term "link" to refer to a hyperlink. In particular, the Background of the Invention states:

Sites on the web, generally referred to as web sites, are connected or linked together using a special communication protocol such as, for example, Hypertext Transport Protocol (HTTP), and a Uniform Resource Locator (URL) that includes a specific syntax for defining a network connection on the web. $* * *$ A link, such as a hyper link, is created under the communication protocol. By selecting links and employing a web browser, a user may "navigate" from one document to another, and from one web site to another, to access informational content and services available across the web.
'745 Patent at 2:36-42 \& 2:51-56 (emphasis added). Further, in disclosing an embodiment, the specification appears to draw a distinction between an original "link" and a "locally stored interactive link":
[W]hen performing a subsequent retrieval of the functionality presented by the applications 41 , the applications 32 and/or information 34 that originally provided the link 68 (now locally stored as the interactive link 72) to the applications 41 need not be retrieved.

Id. at 8:27-31 (emphasis added).
On the other hand, the specification repeatedly uses "link" and "interactive link" interchangeably:

Accordingly, the interactive links may be selectively stored in the desktop-based repository or in the internet-based repository. Alternatively, the links are stored in both of the desktop-based repository and the internet-based repository.

Id. at 5:60-64 (emphasis added).
In yet another embodiment, the system includes a device for transmitting and storing a copy of the interactive links at a next client computer. When the links are stored, the next client computer is operable for selectively requesting the remotely stored applications and information and forming the communication connection between the next client computer and the application server. The system further includes a data repository for storing information for tracking transmissions of interactive links between the client computers.

Id. at 6:59-67 (emphasis added).

As is discussed in detail below, droplet handles may be icons, graphical images, or strings of text, that may be selected and downloaded to store, on a client computer 20, the interactive links (e.g., links 72 of FIG. 1) to droplet-enabled applications 41 remotely stored across the network 50 .

Id. at 10:44-49 (emphasis added).

## Downloading Interactive Links to Droplet-enabled Application and Information:

As discussed in the Background Section of this Specification, objects displayed on a GUI (e.g., on the desktop or a window region thereof) may be captured and moved about the GUI in a "drag and drop" operation. In accordance with the present invention, the links to droplet-enabled applications within informational content 36 delivered to a client computer (e.g., a link to a droplet-enabled application presented within a banner ad on a web page) may be downloaded to the client computer via a drag and drop operation. That is, a droplet handle object incorporated on the banner ad of the delivered informational content 36 may be captured by, for example, selecting the droplet handle object, and moving (dragging) the handle about the client computer's GUI. When in a desired location or position on the client computer, the droplet handle object may be locally loaded (dropped) in an improved drag and drop type of operation.

Specifically, the present invention supports the downloading (e.g., dragging and dropping) of links to droplet-enabled applications within delivered informational content 36 from: (1) a web page onto the desktop; (2) a first window region onto another window region that accepts files; and (3) a web page or window region onto a directory or an application program's menu such as, for example, the Start Menu of the Microsoft Windows ${ }^{\text {TM }}$ operating system software. Accordingly, locally stored links are selected to invoke and present, on the client computer 20, functionality provided by droplet-enabled applications, executing on the application server 40, and information on an "as-needed" basis.
$I d$. at 14:31-61 (emphasis added).
When dropped, the file (e.g., files 74 of FIG. 1) is associated to the interactive link (e.g., links 72 of FIG. 1). The file includes information for re-establishing the communication connection 54 to the application server 40 as the link is selected, as is discussed below.

Id. at 16:36-40 (emphasis added).
In accordance with the present invention, not only is a locally stored interactive link provided for invoking remotely stored applications and information, but the link may also be visually customized to resemble a commercial image such as, for example[,] a corporation's business name and/or logo.

Id. at 18:12-17 (emphasis added).
On balance, the specification as a whole demonstrates that the term "link," as it appears in the claims of the patents-in-suit, is used interchangeably with "interactive link." See Edwards Lifesciences, 582 F.3d at 1329 ("[T]he specification consistently uses the words 'graft' and 'intraluminal graft' interchangeably. The interchangeable use of the two terms is akin to a definition equating the two."). The terms "link" and "interactive link," as they appear in the claims, should therefore be given the same construction.
(b) applications and/or information stored at remote locations

The parties are in substantial agreement that an "interactive link" is for accessing applications at remote locations. The Court therefore adopts Defendants' proposal in that regard. See, e.g., '745 Patent at 5:5-9 ("The method also includes storing on the client computer an interactive link for selectively re-establishing the second communication connection to the application server for invoking and presenting the remotely stored application and information on an as needed basis.); id. at 6:29-36 (similar).

## (c) facilities for restoring previous operating states

As noted above, $E^{*}$ Trade concluded that an interactive link "includes facilities for restoring previous operating states of the application as the application is re-presented at a user's computer." (Dkt. No. 198, Ex. G at 10 \& 11-12.)

The Background of the Invention states:
Therefore, there is a need for storing an interactive link on a user's computer which, when selected, retrieves and presents applications and/or information stored at remote locations across the network. There is also a need for the interactive link to include facilities for restoring previous operating states of the application as the application is re-presented at a user's computer.
‘745 Patent at 3:66-4:5 (emphasis added). The Objects of the Invention include:

It is yet another object and advantage of this invention to provide interactive links to remotely stored applications and information, wherein when selectively employed to retrieve and present the remotely stored applications and information on a client computer, a previous operating state of the applications and information may be restored.

Id. at 4:25-30 (emphasis added). Likewise, the Background of the Invention explains the shortcomings of "bookmarks" and "cookies" in this regard. See id. at 3:35-65. The specification further discloses:

## Persistent State Maintenance

The present invention provides capabilities for re-establishing a previous operating state of a droplet-enabled application. For example, when a user reestablishes a session with a droplet-enabled application, the state of the application is restored to what it was when the user ended the immediately prior session.

$$
* * *
$$

In one embodiment, the user is given an option of re-loading or not re-loading the state information 48 corresponding to the last session.
***

In order to identify concurrent operating sessions the system 600 (and system 10) stores a flag indicating that a particular user already has an open session with a particular application.

Id. at 24:54-60, 25:17-19 \& 26:23-36.

The specification thus discloses that although an "interactive link" can be used to restore a previous operating state of an application, there is no requirement that a previous operating state actually exists. See id., esp. at 25:17-19. For example, the first time a user starts an application, there may be no previous operating state. With that understanding, Defendants are correct that an "interactive link" must "include[] facilities for restoring previous operating states of the application as the application is re-presented at a user's computer." (Dkt. No. 203, Ex. 1 at 3 (emphasis added).)

The Background of the Invention discusses various prior art elements, such as "static links," Uniform Resource Locators (URLs), "bookmarks," and "cookies." See '745 Patent at 1:34-56 \& 2:36-4:5. On one hand, "statements about the difficulties and failures in the prior art, without more, do not act to disclaim claim scope." Retractable Techs., Inc. v. Becton, Dickinson \& Co., 653 F.3d 1296, 1306 (Fed. Cir. 2011).

On the other hand, during the reexamination of the ' 745 Patent, Plaintiff stated:
Internet shortcuts encapsulate URLs or other location information . . . and cannot perform the functions of interactive links as claimed. * * * Internet shortcuts are not graphical representations of interactive links but are instead representations of instructions to perform on an Internet browser.
***
[M]anual URL address inputs, bookmarks or special browser icons are not the same as an interactive link as claimed. $* * *$ The browser elements are not interactive and do not perform the functions of the interactive link as claimed.
***

Patent Owner further asserts that hyperlinks are different from the claimed interactive links because hyperlinks connect and help navigate from one document to another. Hyperlinks are out of context because claim 1 relates to communication between hosts as opposed to hyperlinks relating to browsing web documents or pages.
(Dkt. No. 203, Ex. 5, 11/17/2008 Amendment at 27-28, 55 \& 56 (emphasis added); see id. at 34 (similar) \& 61-62 (similar).)

As noted above, in $E^{*}$ Trade the Southern District of New York concluded that Plaintiff disclaimed URLs, shortcuts, bookmarks, cookies, and hyperlinks as being the claimed "interactive link." See Dkt. No. 198, Ex. I at 3-6. Also, after considering extensive live expert testimony, $E^{*}$ Trade rejected Plaintiff's argument that the meaning of those terms evolved over time such that any disclaimer does not cover URLs, shortcuts, bookmarks, cookies, or hyperlinks
as those terms are used today. (See id. at 4-6 (discussing Biogen Idec. Inc. v. GlaxoSmithKline LLC, 713 F.3d 1090, 1096 (Fed. Cir. 2013))); see also No. 12 Civ. 2326 (S.D.N.Y.), Dkt. No. 243, 1/15/2014 Hr'g Tr.

The Court reaches the same conclusion here that Plaintiff disclaimed bookmarks, shortcuts, hyperlinks, and Internet addresses (URLs) as being the claimed "interactive link." See, e.g., Krippelz v. Ford Motor Co., 667 F.3d 1261, 1266 (Fed. Cir. 2012) ("A patentee’s statements during reexamination can be considered during claim construction, in keeping with the doctrine of prosecution disclaimer."); Typhoon Touch Techs., Inc. v. Dell, Inc., 659 F.3d 1376, 1381 (Fed. Cir. 2011) ("The patentee is bound by representations made and actions that were taken in order to obtain the patent."); Omega Eng'g, 334 F.3d at 1324 ("[T]he prosecution history . . . 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.") (quoting Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985)).

This disclaimer finding applies to all of the patents-in-suit. See Verizon Servs. Corp. v. Vonage Holdings Corp., 503 F.3d 1295, 1306-1307 (Fed. Cir. 2007) ("We have held that a statement made by the patentee during [the] prosecution history of a patent in the same family as the patent-in-suit can operate as a disclaimer.") (citing Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1350 (Fed. Cir. 2004)); see also Cordis Corp. v. Boston Scientific Corp., 658 F.3d 1347, 1356 n. 5 (Fed. Cir. 2011) (citing Verizon).

As to "cookies," however, $E^{*}$ Trade found no disclaimer in the prosecution history and instead relied upon the specification:

Droplets [(Plaintiff)] correctly notes that it did not disclaim (or distinguish) cookies in the reexamination. However, any concept that a cookie could be the interactive link claimed in the ' 745 patent was swept away by the language of the
original patent itself, in which cookies were expressly distinguished from the claimed invention.
(Dkt. No. 198, Ex. I at 6.) This finding in $E^{*}$ Trade evidently refers to the same passage, from
the Background section of the specification, that Defendants cite in the present case:
Facilities presently exist for storing an address (URL) of a web site currently being displayed. One such facility is referred to as a "bookmark." Once created, bookmarks offer a means of retrieving the URL of a particular web site and directing the user's browser to display the page residing at the U[R]L. Bookmarks eliminate the need for the user to manually enter the URL of a site of interest or to retrace (re-navigate) a path through the Internet to arrive at the web site through a known link. However, bookmarks are limited in two respects. Firstly, a web page must be displayed before the URL corresponding to the web page can be stored as a bookmark. Secondly, bookmarks do not maintain information pertaining to a previous operating state of the web site. For example, a bookmark may return a user to a previously displayed web page, such as a form for completing a commercial transaction, but information that may have been completed on the form is generally not saved. That is, the completed information is generally not stored unless the information is made available through another tracking facility referred to as a "cookie." Cookies maintain tracking information on the user's computer that may be referenced once the browser reloads the desired web page and invokes the application included therein. Once the application is invoked, information that was previously entered and stored in the cookie may be restored in the application. Cookies, however, are generally timesensitive and may expire before a user attempts to re-navigate to the site of interest. Also, cookies are only stored on the computer where the original transaction occurred. If the user accesses the site from another computer, the tracking information is not available.
'745 Patent at 3:35-65; (see Dkt. No. 198, Ex. I at 3 (citing ‘745 Patent at 3:36-65).)
On balance, this discussion of cookies in the Background section of the specification does not amount to a disclaimer as to cookies. See, e.g., Thorner v. Sony Computer Entm't Am. LLC, 669 F.3d 1362, 1366-67 (Fed. Cir. 2012) ("To constitute disclaimer, there must be a clear and unmistakable disclaimer."). Instead, the patentee merely distinguished particular features, such as time-sensitivity and storing information on only the computer where an original transaction occurred. See '745 Patent at 3:34-65, esp. at 3:60-65.

Defendants' argument regarding the purported disclaimer of "cookies" is therefore hereby expressly rejected. Nonetheless, as discussed above, the Court adopts the finding in E*Trade that Plaintiff disclaimed bookmarks, shortcuts, hyperlinks, and Internet addresses (URLs).

## (e) Construction

In light of the conclusions reached in subsections (a) through (d), above, the Court hereby construes "link" and "interactive link" to mean "computer code that: (1) retrieves and presents applications and/or information stored at remote locations across the network when selected by an end user; and (2) includes facilities for restoring previous operating states of the application as the application is re-presented at a user's computer. An interactive link cannot be a bookmark, shortcut, hyperlink, or Internet address (URL)." As noted in subsection (c) above, however, there is no requirement that a previous operating state actually exists.

Finally, as to Defendants' argument at the August 13, 2014 hearing that an interactive link cannot be HTML (HyperText Markup Language), such a distinction is not supported by the intrinsic evidence and would require applying the Court's construction to particular accused instrumentalities, thus presenting questions of fact for the finder of fact rather than questions of law for claim construction. See PPG, 156 F.3d at 1355 (noting that "the task of determining whether the construed claim reads on the accused product is for the finder of fact").

## J. "storing, on the client computer, [a/an] [interactive] link"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "saving an [interactive] link delivered to the <br> client computer" |
| In the alternative, to the extent a construction is <br> deemed necessary, this term should be <br> construed to mean: <br> "maintaining information, on the client <br> computer, related to [a/an] [interactive] link in <br> volatile or non-volatile memory" |  |

(Dkt. No. 198 at 20 (Plaintiff's square brackets modified); Dkt. No. 203, Ex. 1 at 3 (square brackets Defendants').) The parties submit that these disputed terms appear in Claim 1 (and all claims depending therefrom) of the ' 745 Patent and Claims 2 and 16 (and all claims depending therefrom) of the '838 Patent. (Dkt. No. 193, Ex. B at 11.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "saving an [interactive] link on the client computer."

## (1) The Parties' Positions

Plaintiff proposes that " $[\mathrm{n}]$ o construction is necessary for these terms, as a juror would understand their meaning, particularly in the context of the claims." (Dkt. No. 198 at 20.) Plaintiff argues that the evidence cited by Defendants does not support their proposed "saving" and "delivered to the client computer" limitations. (Id. at 20-21.)

Defendants respond that disclosures in the specification, as well as Plaintiff's statements in Adobe and during reexamination, demonstrate that interactive links are stored on the client computer. (Dkt. No. 203 at 22-23.) Defendants also argue that Plaintiff's attempt to broaden the construction with an extrinsic dictionary should be rejected because "the claims explicitly require that the 'interactive link' / 'link' itself is stored, not other information related to the 'interactive
link,"" and because the terms "volatile" and "non-volatile," proposed by Plaintiff, do not appear in the specification. (Id. at 23-24.)

Plaintiff replies that it "is concerned Defendants will-wrongly-further construe 'saving' to require some mens rea or affirmative act on a user's part. Modern computers allow many ways to 'store' information without requiring the user to intend to or undertake some affirmative act to save . . ." (Dkt. No. 205 at 8-9.)

At the August 13, 2014 hearing, Defendants submitted that although the interactive link need not be stored permanently for all time, "storing" needs to be more than merely temporary. Defendants nonetheless acknowledged that the disputed term does not require an intentional act by a computer user.

Plaintiff responded that although storing may be a result of downloading, downloading does not necessarily result in storing. Plaintiff also submitted that introducing the word "saving" would merely give rise to later disputes regarding the meaning of "saving." For example, Plaintiff argued that Defendants are proposing an indeterminable degree of permanence.

## (2) Analysis

The parties' arguments at the August 13, 2014 hearing demonstrated that the parties dispute is less a matter of what "storing" is and more a matter of where and for how long. In particular, the parties dispute whether "storing" requires "saving" something to a non-volatile medium such as a hard disk or instead merely "maintaining" something such as in volatile memory. This dispute has been further crystallized by the extrinsic evidence cited by Plaintiff, a technical dictionary that defines "storage" as meaning: "In computing, any device in or on which information can be kept. Microcomputers have two main types of storage: random access memory (RAM) and disk drives and other external storage media." (Dkt. No. 198, Ex. J,

Microsoft Press Computer Dictionary 450 (3d ed. 1997).) Plaintiff submits that "RAM" is "volatile" and that disk drives and other external storage media are "non-volatile." (Dkt. No. 198 at 20.)

The specification discloses:
Accordingly, the present invention provides a mechanism for locally storing links to remote droplet-enabled applications and/or information. For example, FIG. 2 illustrates the web page 110 presenting the droplet-enabled Stock Watcher application 100. As described above with reference to FIGS. 4A-4D and 5, the droplet handle 120 (the link) to the Stock Watcher application 100 was downloaded from the web page 110 and locally stored as the graphical representation 320 on the portion 310 of the desktop of the client computer 20.
'745 Patent at 17:26-35 (emphasis added).
This reference to "download[ing]," contrasted with "locally storing links" on the "desktop of the client computer," supports Defendants' argument that "storing" is something more than merely downloading. See id. Further, the weight of this evidence is heightened at least somewhat by the above-quoted passage referring to "locally storing" as being provided by "the present invention." See, e.g., Regents of Univ. of Minnesota v. AGA Med. Corp., 717 F.3d 929, 936 (Fed. Cir. 2013) ("When a patent thus describes the features of the 'present invention' as a whole, this description limits the scope of the invention.") (quoting Verizon, 503 F .3 d at 1308; citing TiVo, Inc. v. EchoStar Commc'ns Corp., 516 F.3d 1290, 1300 (Fed. Cir. 2008)).

Such a reading is also consistent with Plaintiff's opening claim construction brief in Adobe, wherein Plaintiff argued that "[a]n interactive link is 'stored outside the browser." (Dkt. No. 203, Ex. 13 at 10.)

Finally, during reexamination of the '745 Patent, Plaintiff stated:
Adobe [(the reexamination requester)] improperly mischaracterizes the disclosure of Shaw [(United States Patent No. 6,362,836)] in the reexamination request, and hence by the Office Action reliance on this mischaracterization, the Office Action also mischaracterizes the disclosure of Shaw. For example . . . [as to the
statement] that "Shaw discloses downloading, i.e., storing, a webtop to the client computer. Shaw, col. 13, lines 63-66." Rather, the cited passage states that upon confirmation of password information, the "session manager[] downloads to client device 214 a webtop that is built up using the bottom up traversal of the data store 273 containing icons representing the application programs available to the user." Adobe's mischaracterization includes 2 significant oversights - (1) equating the step of downloading to storing; and (2) asserting that the download of the webtop identically discloses the storage of an interactive link. Neither of these is proper.

## (Id., Ex. 5, 11/17/2008 Amendment at 38-39 (emphasis added))

The Examiner's analysis fails to actually address the "storing, on the client computer" as claimed. The passages of Orenshteyn [(United States Patent No. $6,393,569$ )] at col. 22 , lines $12-28$ provide for transmitting icons to the client computer. Client computer transmission is not equivalent with "storing on the client computer."
(Id., Ex. 7, 2/19/2014 Appellant's Corrected Brief in Inter Partes Reexamination at 42 (emphasis added).)

These distinctions drawn by Plaintiff during reexamination, which contrast "storing" with "downloading" and with "transmit[ting]," should be given effect. See Typhoon Touch, 659 F.3d at 1381; see also Omega Eng'g, 334 F.3d at 1324. Plaintiff's proposal of "maintaining information . . . in volatile or non-volatile memory" does not give effect to this prosecution history and is therefore hereby expressly rejected.

Nonetheless, Defendants' proposal of "saving" is also hereby rejected as failing to resolve the parties' dispute and as tending to confuse rather clarify the scope of the claims, particularly in light of the absence of any usage of "saving" in the intrinsic evidence.

On balance, the disputed term should be given its plain meaning with the understanding that, based on the above-discussed prosecution history, something that is "stored" can be retrieved later and is more than merely downloaded or transmitted from a server to a client. Nonetheless, as Defendants acknowledged at the August 13, 2014 hearing, "storing" need not be permanent for all time.

With this understanding, the Court hereby construes "storing, on the client computer, [a/an] [interactive] link" to have its plain meaning.

## K. "event message"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "message to the application server reporting <br> that a value or attribute of a component of the |
| In the alternative, to the extent a construction is <br> deemed necessary, this term should be <br> construed to mean: <br> "message related to an action", | user interface has been altered" |

(Dkt. No. 198 at 21; Dkt. No. 203, Ex. 1 at 3.) The parties submit that this disputed term appears in all asserted claims of the ' 115 Patent. (Dkt. No. 193, Ex. B at 20.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with its preliminary construction that this disputed term has its plain meaning.

## (1) The Parties' Positions

Plaintiff argues that "[n]o construction is necessary for this term, as a juror would understand its meaning, particularly in the context of the claims," because "the claims spell out what is required of an 'event message.'" (Dkt. No. 198 at 21.) Plaintiff also argues that "Defendants' proposal errs as it introduces aspects of the term already described by the claim language surrounding the term, and also contradicts that surrounding language." (Id. at 21-22.)

Finally, Plaintiff argues that Defendants' proposed requirement of reporting what has been "altered" would improperly limit the claims to a particular disclosed embodiment. (Id. at 22.)

Defendants respond that "both 'event messages' and 'update messages' are expressly defined in the specification" with reference to "the 'present invention,' not simply an embodiment." (Dkt. No. 203 at 25-26 (citing Honeywell Int'l, Inc. v. ITT Indus., Inc., 452
F.3d 1312, 1318 (Fed. Cir. 2006) (finding that "the written description refers to the fuel filter as
'this invention' or 'the present invention"" and that " $[t]$ he public is entitled to take the patentee at his word and the word was that the invention is a fuel filter")).)

Plaintiff replies by reiterating that "Defendants improperly attempt to import an embodiment." (Dkt. No. 205 at 9.)

## (2) Analysis

Claim 1 of the ' 115 Patent is representative and recites (emphasis added):

1. A computerized method for delivering interactivity over the web to a client device from a remotely stored application residing on a server, the method comprising:
in response to receiving a request for a web page from the client device, serving a web page to the client device, the web page having executable code embedded therein which, when executed in a web browser running on the client device, communicates messages with the remotely stored application on the server, the web page further having user interface information for presenting within the web browser a user interface for the remotely stored application; receiving an event message from the executable code on the client device, the event message reporting an action taken within one or more screen components in the user interface through the client device;
executing application logic within the remotely stored application on the server to generate data values based on the action reported in the event message and client device information; and
sending to the client device an update message with at least some of the generated data values and instructions for use by the executable code to present the data values within the user interface of the web page at the client device.

The specification discloses:
In accordance with one aspect of the present invention, a network communication protocol is defined for transmitting information between the droplet-enabled applications 41 and the application server 40 . The protocol includes a number of message formats wherein properties of and events pertaining to components, such as the GUI components, of actively operating droplet-enabled applications 41 are communicated between the client computer 20 and the application server 40 . The message formats include, for example:

1. Event Notifications-messages transmitted from a client computer 20 to the application server 40 reporting that a value or attribute of a component of the GUI has been altered. Events include, for example, data entry into text boxes and
drop-down lists of the GUI, selection ("clicking") of GUI components such as radio and command buttons. Messages are also transmitted in response to other pointing device or keyboard driven actions such as, for example, drag and drop events as an e-mail message is moved to a folder within a droplet-enabled e-mail application.
‘745 Patent at 11:61-12:13 (emphasis added).
This disclosure is presented as being an "example" "[i]n accordance with one aspect of the present invention" (id. at 11:61 \& 12:2) and does not amount to a clear lexicography. See, e.g., CCS Fitness, 288 F.3d at 1366 ("[T]he claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition . . . .") (emphasis added).

Defendants' proposed construction is therefore hereby expressly rejected. No further construction is necessary, especially in light of the context provided by the claims, such as quoted above. 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 "event message" to have its plain meaning.

## L. "update message"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "message to the client computer requesting |
| action within screen components of the system |  |
| In the alternative, to the extent a construction is <br> deemed necessary, this term should be <br> construed to mean: <br> "message related to data values or <br> instructions" | to update the application information" |

(Dkt. No. 198 at 22; Dkt. No. 203, Ex. 1 at 4.) The parties submit that this disputed term appears in all asserted claims of the ' 115 Patent. (Dkt. No. 193, Ex. B at 21.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with its preliminary construction that this disputed term has its plain meaning.

## (1) The Parties' Positions

Plaintiff argues that " $[n]$ o construction is necessary for this term, as a juror would understand its meaning, particularly in the context of the claims" because "the claims spell out what is required of an 'update message." (Dkt. No. 198 at 22.) Plaintiff submits that "the claims themselves make evident" that "an 'update' corresponds with 'data values and instructions." (Id. at 23.) Plaintiff argues that Defendants' proposed construction is contrary to the language of the claims and "inject[s] an embodiment related to 'requesting an action within screen components of the system' into the claims, see ['745 Patent] at 12:14-19, despite the claims not requiring such . . . " (Id.)

Defendants argue this disputed term together with the term "event message," which is addressed above. (See Dkt. No. 203 at 25-26.)

Plaintiff replies by reiterating that "Defendants improperly attempt to import an embodiment." (Dkt. No. 205 at 9.)

## (2) Analysis

Claim 1 of the ' 115 Patent is representative and recites, in relevant part (emphasis added):

1. A computerized method for delivering interactivity over the web to a client device from a remotely stored application residing on a server, the method comprising:
executing application logic within the remotely stored application on the server to generate data values based on the action reported in the event message and client device information; and
sending to the client device an update message with at least some of the generated data values and instructions for use by the executable code to present the data values within the user interface of the web page at the client device.

The specification discloses:
2. Update Commands-messages transmitted from application drivers, e.g., the application specific logic 46 supporting a droplet-enabled application, on the application server 40 to the client computer 20 requesting action within screen components of the system 10 , such as GUI components within the delivered content.

## '745 Patent at 12:14-19.

This disclosure is presented as being an "example" "[i]n accordance with one aspect of the present invention" (id. at 11:61 \& 12:2) and does not amount to a clear lexicography. See, e.g., CCS Fitness, 288 F.3d at 1366 ("[T]he claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition . . . .") (emphasis added).

Defendants' proposed construction is therefore hereby expressly rejected. No further construction is necessary, especially in light of the context provided by the claims, such as quoted above. 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 "update message" to have its plain meaning.

## M. "re-establishing the [second] communication connection"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "restoring a direct connection to the application <br> through the [second] communication <br> connection" |

(Dkt. No. 198 at 23; Dkt. No. 203, Ex. 1 at 3 (square brackets Defendants').) The parties submit that this disputed term appears in Claim 1 (and all claims depending therefrom) of the ' 745

Patent and Claim 2 (and all claims depending therefrom) of the ' 838 Patent. (Dkt. No. 193, Ex. B at 10.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "restoring a direct connection to the application through the [second] communication connection."

## (1) The Parties' Positions

Plaintiff argues that "Defendants' efforts to assign different language to th[is] selfexplanatory, plain language term[] amounts to an attempt to rewrite the claims of the patents-insuit, and should therefore be rejected." (Dkt. No. 198 at 24.)

Defendants respond by citing the specification and by submitting that " $[t]$ he fact that the restored connection to the application must be direct was recently confirmed by [Plaintiff] during re-examination of the ' 838 Patent" as well as in Adobe. (Dkt. No. 203 at 24.)

Plaintiff replies that "the specification never says that 'the connection is restored directly'; nor does the specification use 'directly' in the way Defendants imply," and "[w]hile directly restoring a connection to an 'application' may be an 'ability' of an 'interactive link,' the invention is not limited only to this ability." (Dkt. No. 205 at 9.)

## (2) Analysis

As a threshold matter, Plaintiff argued in its opening claim construction brief in Adobe that "the specification describes that the 'interactive link' provides a user of a client computer with the ability to access the application server and remotely stored application directly, without the need to re-establish any intermediate connections." Id., Ex. 13 at 11 (emphasis added). Defendants have not argued that any estoppel applies, so although Plaintiff's position in Adobe may be probative, it is not dispositive.

Claim 1 of the ' 745 Patent is representative and recites (emphasis added):

1. In a network configured computer processing system having a plurality of client computers and a plurality of host computers, a method for delivering
interactive links for presenting applications and information from remote sources on the network, the method comprising:
retrieving, in response to a request of a client computer, over a first communication connection first information having computer program code embedded therein and executing the embedded computer program code for establishing a second communication connection to a second host computer; sending second information relating to the operating environment of the client computer, from the client computer to the second host computer; retrieving, over the second communication connection, third information including presentation information for presenting an application and fourth information, the presentation information being based on the second information; presenting, at the client computer, the application and the fourth information based upon the presentational information; and storing, on the client computer, an interactive link for selectively reestablishing the second communication connection to the second host computer for retrieving the third information and presenting the application and the fourth information.

On one hand, the specification appears to refer to a re-establishing a direct connection to
an application server:
Once selected, the link causes the local operating system 80 to invoke the droplet supporting the droplet-enabled application. That is, the droplet cooperates with the droplet presentation client 25 and local operating system 80 to access the associated file and to re-establish the communication connection 54 to the application server 40 for re-delivering information for re-presenting the Stock Watcher application 100. Importantly, the Stock Watcher application 100 is, in effect, re-executed at the application server 40 to re-present to the client computer 20 the functionality of the Stock Watcher application 100 without having the application 100 locally loaded on the client computer 20 and also without renavigating back to the web page 110 that originally presented the Stock Watcher application 100 to the user. By eliminating the need to locally store applications and/or to re-navigate to a web page containing a desired application, the present invention avoids two perceived disadvantages of conventional processes for invoking remote applications and retrieving remotely stored information.
'745 Patent at 17:38-57 (emphasis added).
On the other hand, the specification also discloses a "central event server," which is
illustrated in Figure 6 as residing between a "client computer 20" and an "application server 40":
The implementation of the event channel 400 requires the cooperation of the client computers, a central event server and application servers spread over the network 50. In FIG. 6, the central event server is implemented within the content
provider 30, although it should be appreciated that other implementation strategies are contemplated. The content provider 30 includes an event transmitting buffer 410 operatively coupled to each application server, for example the application server 40 , and event receiving buffers within each client computer, for example an event receiving buffer 420 within the client computer 20.

Id. at 23:53-63; see id. at 23:18-24:53.

As for the prosecution history, during reexamination of the '838 Patent, Plaintiff argued as follows, with reference to the "ArcView Users Guide" prior art, regarding the limitation "execution of the embedded computer program code establishing a communication connection to a host computer":
[T]he tiered structure of the web server as the intermediate server and the application itself running on the ArcView server prohibits any communication connection. Execution of the MapCafe applet on the web browser does not establish a connection to the ArcView server. At best, execution of the MapCafe applet generates an HTTP formatted data request for content that is sent to the web server, such that [sic, which] the web server redirects as a data call to the ArcView server.
(Dkt. No. 203, Ex. 7, 2/19/2014 Appellant's Corrected Brief in Inter Partes Reexamination at 39 (emphasis added).)

Nonetheless, Plaintiff has persuasively argued that it distinguished ArcView as disclosing a "stateless" system rather than based on ArcView using something other than a direct connection to the application server. (See, e.g., Dkt. No. 205 at 3 \& n.4.) In particular, as part of the same above-quoted discussion in the prosecution history Plaintiff explained as follows:

Page 35, second paragraph of ArcView notes that "ArcView IMS requires stateless client/server communications." These communications are not part of a communication connection as claimed because a connection requires interaction. Rather, "ArcView must completely satisfy each MapCafe request without requiring that any of the user's current state, ..., be carried over to satisfy the next request. This is because the next request that ArcView receives may come from a completely different user on the web." (Page 35, g[2).
(Dkt. No. 203, Ex. 7, 2/19/2014 Appellant's Corrected Brief in Inter Partes Reexamination at 38-39 (emphasis added; ellipsis in original).) Defendants have therefore failed to establish a clear and unmistakable disclaimer. See Golight, 355 F.3d at 1332 ("Because the statements in the prosecution history are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable departure from the ordinary meaning of the term 'rotating.'"); see also Omega Eng'g, 334 F.3d at 1324 ("As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution.") (emphasis added); 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); cf. id. at 1330 ("[T]here is more than one reasonable basis for the amendment, rendering the intent underlying the amendment ambiguous and thus negating the possibility of the disclaimer being unmistakable.").

Defendants' proposed construction is therefore hereby expressly rejected. 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 "re-establishing the [second] communication connection" to have its plain meaning.
N. "remotely stored application"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed (aside <br> from other construed terms embedded within) | "a software program that executes specific <br> tasks for the end user that does more than <br> generate or retrieve dynamic information in <br> response to HTTP requests" |

(Dkt. No. 198 at 23; Dkt. No. 203, Ex. 1 at 1.) The parties submit that this disputed term appears in all asserted claims of the ' 115 Patent. (Dkt. No. 193, Ex. B at 17.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning apart from the Court's separate construction of 'application,' above."

At the August 13, 2014 hearing, Defendants agreed that this disputed term requires no construction apart from construction of the constituent term "application," discussed above.

The Court accordingly hereby construes "remotely stored application" to have its plain meaning apart from the Court's separate construction of "application," above.
O. "user interface information"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "information regarding the graphical <br> requirements of the client computer" |

(Dkt. No. 198 at 24; Dkt. No. 203, Ex. 1 at 4.) The parties submit that this disputed term appears in all asserted claims of the ' 115 Patent. (Dkt. No. 193, Ex. B at 19-20.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with its preliminary construction that this disputed term has its plain meaning.

## (1) The Parties' Positions

Plaintiff argues that "Defendants' efforts to assign different language to th[is] selfexplanatory, plain language term[] amounts to an attempt to rewrite the claims of the patents-insuit, and should therefore be rejected." (Dkt. No. 198 at 24.)

Defendants respond that "the specification describes that the 'user interface information' is used to customize the presentation of the remotely stored application based on the graphical requirements of the client device." (Dkt. No. 203 at 28.)

Plaintiff replies that "Defendants' alleged support . . . deals with user interface requirements (not information)." (Dkt. No. 205 at 10.)

At the August 13, 2014 hearing, Defendants alternatively proposed construing this disputed term as meaning "information regarding at least the graphical requirements of the client computer."

## (2) Analysis

The specification discloses:
In accordance with the present invention, droplets ${ }^{\mathrm{TM}}$ (e.g., the droplets 64 and 70) are dynamic and "thin" applications. That is, the droplets ${ }^{\text {TM }}$ generally include information identifying the operating environment on the client computer 20, the application server 40 to connect with and an application on the server 40 that is run to deliver the requested functionality to the client computer 20 once the connection is made. The information identifying the operating environment on the client computers 20 provides information to the application server 40 regarding the operating system and hardware capabilities of the particular client computer 20 that requested the droplet-enabled content 36 . That is, the plurality of client computers 20 may include computer workstations, personal computers and portable devices such as, for example, laptop and notebook computers, PalmPilots and internet-enabled radio telephones. As is apparent to those in the art, each such device platform includes differing user interfaces. As such, not all client computers 20 are capable of presenting for example, full color, highresolution graphics. By providing the operating environment of the requesting client computer 20 to the application server 40 , the application server 40 provides information 43 to present the requested applications 41 on the client computer 20. The information 43 includes, for example, instructions 42 for rendering graphical objects within the presented applications 41 , default parameters or data values 44 displayed within the applications 41 and application-specific business logic 46 for processing inputs to the applications 41.

In accordance with one aspect of the present invention, a droplet application developer creates droplet-enabled applications or served [sic] versions of each application for presenting particular functionality to client computers having differing user interface ("UI") requirements. For example, a droplet-enabled email application may be implemented a number of ways such that a first version may operate on a personal computer having capabilities for providing full color, high-resolution graphics and a second version for operating on an internetenabled radio telephone having only text-processing capabilities. In accordance with this aspect of the present invention, a droplet communicates one of the differing client environments and, in particular, client UI requirements, to the
application server 40 which automatically provides, for example, the first version to a requesting personal computer and the second version to the requesting radio telephone. Alternatively, the droplet ${ }^{\mathrm{TM}}$ could determine UI requirements from the client operating system or other locally stored data.
'745 Patent at 8:58-9:36 (emphasis added).
On balance, the disclosures cited by Defendants do not warrant limiting the seemingly generic term "user interface information" to "graphical requirements," as Defendants have proposed. See Comark, 156 F.3d at 1187; accord Phillips, 415 F.3d at 1323. Instead, graphics capability is just one of potentially many aspects of user interfaces.

Defendants' proposal is therefore hereby expressly rejected. 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 "user interface information" to have its plain meaning.

## P. "application logic"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | "executable code for performing the functions <br> of the application that does more than generate <br> or retrieve dynamic information in response to <br> HTTP requests" |

(Dkt. No. 198 at 24; Dkt. No. 203, Ex. 1 at 1.) The parties submit that this disputed term appears in all asserted claims of the ' 115 Patent. (Dkt. No. 193, Ex. B at 21.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning apart from the Court's separate construction of 'application,' above."

At the August 13, 2014 hearing, Defendants agreed that this disputed term requires no construction apart from construction of the constituent term "application," discussed above.

The Court accordingly hereby construes "application logic" to have its plain meaning apart from the Court's separate construction of "application," above.
Q. "hardware, software, and/or user interface capabilities"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| No construction of this term is needed. | Indefinite |

(Dkt. No. 198 at 24; Dkt. No. 203, Ex. 1 at 4.) The parties submit that this disputed term appears in Claims 9 and 20 (and all claims depending therefrom) of the ' 115 Patent. (Dkt. No. 193, Ex. B at 25.)

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with the following preliminary construction: "hardware, software, or user interface capabilities, or any combination thereof."

## (1) The Parties' Positions

Defendants argue that "the use of the conjunction 'and/or' gives rises to at least seven different combinations of information classes that could allegedly satisfy the claims. Because the claim language does not specify which one of the seven possible combinations define[s] claim scope, the claim language does not delineate the scope of the claim with reasonabl[e] certainty." (Dkt. No. 203 at 29 (footnote omitted) (citing Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2124 (2014)).)

Plaintiff replies: "Defendants present no law or evidence supporting their position that several possible combinations, described in the specification, would not be understandable; nor
do they point to any law disfavoring the use of 'and/or.' . . . The specification discusses each of hardware, software, and user interface capabilities." (Dkt. No. 205 at 10.)

## (2) Analysis

The Supreme Court of the United States has recently "read [35 U.S.C.] § 112, If 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, 134 S. Ct. at 2129. "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.

Claims 9 and 20 of the ' 115 Patent recite (emphasis added):
9. The method of claim 1 , wherein executing application logic comprises generating data values based on the client device information comprising information representing hardware, software and/or user interface capabilities of the client device.

## ***

20. The method of claim 12, wherein the data values are generated based on the client device information comprising information representing hardware, software and/or user interface capabilities of the client device.

Defendants argue that the scope of these claims is not reasonably certain because "[p]ossible unique combinations include: (1) hardware, software and UI; (2) hardware and software; (3) hardware and UI; (4) software and UI; (5) hardware only; (6) software only; and (7) UI only." (Dkt. No. 203 at 29 n.5.)

Perhaps the term "and/or" is less clear than simply "or," but here "and/or" conveys effectively the same meaning as "or," namely that the client device information comprises one,
some, or all of hardware, software, and user interface capabilities. ${ }^{2}$ On balance, Defendants have failed to demonstrate that "and/or" renders the claims indefinite. See, e.g., SuperGuide Corp. v. DirecTV Enters., Inc., 358 F.3d 870, 881 (Fed. Cir. 2004) ("We therefore construe 'radio frequency information' to mean the information received from the mixer, microcontroller, and/or a television station that is carried on or derived from a radio frequency signal.") (emphasis added).

Finally, the Honeywell case cited by Defendants involved four different sample preparation methods for evaluating a "melting point elevation" limitation. (See Dkt. No. 203 at 29; see generally Honeywell Int'l, Inc. v. Int'l Trade Comm'n, 341 F.3d 1332 (Fed. Cir. 2003).) "[T]he sample preparation method [wa]s critical to discerning whether a PET [(polyethylene terephthalate)] yarn ha[d] been produced by the claimed process." Honeywell, 341 F.3d at 1340. "The claims, written description, and prosecution history d[id] not mention the different sample preparation methods or provide sufficient clues to discern which methods are acceptable." Id. at 1339. Here, by contrast, the claims themselves specify that the different types of capability information are alternatives. Honeywell is therefore distinguishable.

In sum, the challenged claims "inform those skilled in the art about the scope of the invention with reasonable certainty," Nautilus, 134 S. Ct. at 2129, and Defendants' indefiniteness argument is therefore hereby rejected.

[^1]The Court further hereby construes "hardware, software, and/or user interface capabilities" to mean "hardware, software, or user interface capabilities, or any combination thereof."

## R. Preambles

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
| :--- | :--- |
| Preambles are not limiting | Preambles are limiting |

(Dkt. No. 198 at 25; Dkt. No. 203, Ex. 1 at 1.) The parties dispute whether the preambles are limitations in Claim 29 of the ' 838 Patent and Claims 1 and 12 of the ' 115 Patent.

Shortly before the start of the August 13, 2014 hearing, the Court provided the parties with its preliminary construction that these preambles are limiting.

The parties did not present any arguments on these terms at the August 13, 2014 hearing. At the conclusion of the hearing, the Court inquired whether the parties agreed with the Court's preliminary constructions for terms as to which the parties presented no argument at the hearing. Both sides agreed.

The Court therefore hereby construes Claim 29 of the ' 838 Patent and Claims 1 and 12 of the ' 115 Patent such that the preambles are limiting.

## 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 22nd day of August, 2014.


## APPENDIX A

| Term | Parties' Agreement |
| :--- | :--- |
| "presentational information" | "information for presenting particular <br> functionality to clients having different user <br> interface requirements" |
| "presentation instructions" |  |
| ('745 Patent, all asserted claims; |  |
| '838 Patent, all asserted claims) |  |

(Dkt. No. 193, Ex. A.)


[^0]:    ${ }^{1}$ 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. The remaining Defendants are Overstock.com, Inc., Sears Roebuck \& Co., Sears Brands, LLC, and Sears Holdings Corp.

[^1]:    ${ }^{2}$ Indeed, in some sense the patentee's use of "and/or" is clearer than if the patentee had used simply "or." Specifically, litigants sometimes dispute whether "or" is a so-called "exclusive or," which means "one or the other but not both." The patentee's use of "and/or" forecloses any "exclusive or" interpretation.

