IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INTERNATIONAL BUSINESS MACHINES CORPORATION,	:	
Plaintiff,	:	
v.	:	C.A. No. 15-137-LPS
THE PRICELINE GROUP INC., KAYAK SOFTWARE CORPORATION, OPENTABLE, INC., AND PRICELINE.COM LLC,	:	
Defendants.	:	

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MEMORANDUM OPINION

October 28, 2016
Wilmington, Delaware

STARK, U.S. District Judge:

On February 9, 2015, Plaintiff International Business Machines Corporation ("Plaintiff") sued Defendants The Priceline Group Inc., Priceline.com LLC, KAYAK Software Corporation, and OpenTable, Inc. ("Defendants") for infringement of U.S. Patent Nos. 5,796,967 ("'967 patent"); 7,072,849 ("'849 patent"); 5,961,601 ("'601 patent"); and 7,631,346 ("'346 patent") (collectively, "Patents-in-Suit").[1] (D.I. 1 at 2) The Patents-in-Suit generally relate to interactive computer networks and communications between networked computers. (*See* '967 patent at 1:15-34; '849 patent at 1:16-32; '601 patent at Abstract; '346 patent at Abstract) The '967 and '849 patents share a substantially identical specification.

Pending before the Court are claim construction disputes for 27 claim terms in the Patents-in-Suit.[2] (*See generally* D.I. 160 Ex. A) The parties submitted technology tutorials on July 26 (*see* D.I. 142, 143) and completed briefing on claim construction on August 15 (D.I. 144, 145, 155, 158). The Court held a claim construction hearing on August 29. (*See* Transcript, D.I. 199 ("Tr."))

I. LEGAL STANDARDS

The ultimate question of the proper construction of a patent is a question of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). "It is a bedrock principle of patent law that the

[1]The Patents-in-Suit are attached as exhibits to Plaintiff's Complaint. (D.I. 1 Exs. A-D)

[2]On August 15, the parties submitted a Supplemental Joint Claim Construction Chart listing their proposed constructions for the disputed terms and specific claims of the Patents-in-Suit in which these terms appear. (D.I. 160 Ex. A) The Court will construe the disputed terms only with respect to the claims identified in this chart.

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) (internal quotation marks omitted). "[T]here is no magic formula or catechism for conducting claim construction." *Id.* at 1324. Instead, the court is free to attach the appropriate weight to appropriate sources "in light of the statutes and policies that inform patent law." *Id.*

"[T]he words of a claim are generally given their ordinary and customary meaning . . . [which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312-13 (internal citations and quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). The patent 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." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While "the claims themselves provide substantial guidance as to the meaning of particular claim terms," the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, "[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent . . . ." *Id.* (internal citation omitted).

It is likewise true that "[d]ifferences among claims can also be a useful guide . . . . For example, the 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." *Id.* at 1314-15 (internal citation omitted). This "presumption is especially strong when the limitation in

dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim." *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible that "the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Phillips*, 415 F.3d at 1316. It bears emphasis that "[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)) (internal quotation marks omitted).

In addition to the specification, a court "should also consider the patent's prosecution history, if it is in evidence." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). The prosecution history, which is "intrinsic evidence," "consists of the complete record of the proceedings before the PTO [Patent and Trademark Office] and includes the prior art cited during the examination of the patent." *Phillips*, 415 F.3d at 1317. "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.*

In some cases, "the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or

the meaning of a term in the relevant art during the relevant time period." *Teva*, 135 S. Ct. at 841. Extrinsic evidence "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries "endeavor to collect the accepted meanings of terms used in various fields of science and technology." *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful "to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* Nonetheless, courts must not lose sight of the fact that "expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence." *Id.* Overall, while extrinsic evidence "may be useful" to the court, it is "less reliable" than intrinsic evidence, and its consideration "is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

Finally, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that "a claim interpretation that would exclude the inventor's device is rarely the correct

interpretation." *Osram GmbH v. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (quoting *Modine Mfg. Co. v. U.S. Int'l Trade Comm'n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996)).

II. CONSTRUCTION OF DISPUTED TERMS[3]

A. '967 Patent

"object(s)"[4]

Plaintiff "separate data structures having a uniform, self-defining format that are known to the reception systems, including data types, such as interpretable programs and presentation data for display at the monitor screen of the user's personal computer"
Defendants "data structures" or "structures that package data"[5]
Court "data structure(s)"

Plaintiff argues that the Court's construction for this term should include limitations from embodiments disclosed in the specification of the '967 patent. (D.I. 145 at 2-3) (citing '967 patent at 5:52-55; 8:3-5) Defendants argue that there is no clearly expressed intent in the intrinsic record to import these limitations into the claims. (D.I. 144 at 3) (citing *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)) The Court agrees with Defendants. Plaintiff's construction is improper because it attempts to import limitations from preferred embodiments into the claims without any clearly expressed intent in the specification to do so. (*See* '967 patent at 5:52-55; 8:3-5)

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[3]The parties have agreed to certain constructions, all of which the Court will adopt. (*See generally* D.I. 160 Ex. A at 9, 17, 25-26, 28-29)

[4]This term appears in claims 1, 3, 4, 12, and 13 of the '967 patent.

[5]Defendants proposed these alternative constructions at the hearing. (Tr. at 15)

Plaintiff argues that its construction is supported by the prosecution history. (D.I. 145 at 2-3) The Court disagrees. There was no clear disclaimer or disavowal of claim scope during prosecution that would support Plaintiff's construction. (*See* D.I. 155 at 2)

Plaintiff's construction is also improper because, if adopted, it might render certain claim language superfluous. For example, Plaintiff proposes including a "uniform" limitation. But other language in claim 1 dictates that objects have predefined structure and that "at least some of the objects may be used in more than one application" – implying that a "uniform" format for objects designed for use with multiple applications is already in the claims. ('967 patent at 39:45-54) Including Plaintiff's "uniform" limitation could, hence, create redundancies in the claim language. *See TMI Prod., Inc. v. Rosen Entm't Sys., L.P.*, 610 F. App'x 968, 972 (Fed. Cir. 2015) (rejecting proposed construction that "create[d] redundancies in the claim language").

The parties agree that "objects are 'data structures.'" (D.I. 145 at 2; Tr. at 15) The specification supports this construction. (*See* '967 patent at 6:23-25 ("Objects may be nested within one another or referenced by an object identifier (object-id) from within their ***data structure***.") (emphasis added); *see also id.* at 5:55-58 (discussing object data structures as "the minimal units available from the higher levels" of interactive network)) Thus, the Court will construe "object(s)" to mean "data structure(s)."

"application(s)"[6]

Plaintiff "information events composed of a sequence of one or more pages opened at a screen"
Defendants "information events composed of a sequence of one or more pages opened at a screen to provide requested information and/or transaction operations" Neither this construction nor the plain language provides sufficient guidance to a person of ordinary skill to determine what constitutes two different applications, rendering the claim indefinite.
Court "information events composed of a sequence of one or more pages opened at a screen"

The parties agree that the specification provides enough guidance to support a construction for this term that includes "information events composed of a sequence of one or more pages opened at a screen." (D.I. 144 at 4; D.I. 145 at 3-4) Defendants propose tacking on additional language specifying that applications, as claimed, are present "to provide requested information and/or transaction operations." (D.I. 144 at 4) This additional language originates from a description of a preferred embodiment, but there is no clear indication in the specification that the claimed invention should be limited to this particular embodiment. (*See generally* '967 patent at 9:10-30) Therefore, the Court adopts Plaintiff's construction and rejects Defendants' proposed inclusion of this additional limitation.

Defendants argue that the claims that include this term are indefinite because a person of ordinary skill in the art would not know, "with reasonable certainty," how to distinguish between two different applications. (D.I. 144 at 4-7) (citing *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014)) Plaintiff counters that a person of ordinary skill in the art would know

[6]This term appears in claims 1, 3, 4, 12, and 13 of the '967 patent.

how to distinguish between applications based on, for example, the different subject matter to which the applications are directed. (D.I. 145 at 5) In support of its arguments, Plaintiff cites the specification of the '967 patent, dictionary definitions, and testimony from its expert. (*Id.*; D.I. 158 at 2-4)

With respect to certain embodiments in the specification, a person of ordinary skill in the art could distinguish between computer applications focused on different subject matter, such as "movie reviews," "the latest news," or "airlines reservations." ('967 patent at 7:29-31; 7:36-40) Indeed, Plaintiff and Defendants ***agree*** that at least one embodiment includes a way to distinguish between applications by consulting a "list" of applications maintained at a "central entity." (D.I. 144 at 5; D.I. 158 at 2-3) However, the Court does not construe the claims to be limited to these embodiments in the specification, and the Court cannot rule conclusively that the claims are ***not*** indefinite based solely on the fact that certain embodiments disclose a way to distinguish between two different applications.

Defendants argue that the claims which include the "application" term contain ambiguities that render the claims indefinite, adding that the indefiniteness problems arise when attempting to read the asserted claims on the accused "modern web functionality." (D.I. 144 at 5) The parties have not fully briefed these issues, and the issue of infringement is not currently before the Court. The Court may benefit from expert testimony developed in connection with the parties' infringement/non-infringement cases, which may further refine the parties' claim construction and indefiniteness arguments related to this term. Thus, while Defendants have not, on the current record, proven by clear and convincing evidence that the claims in question are

indefinite, the Court cannot rule that they are ***not*** indefinite at this time.[7]

"the objects being retrieved from the objects stored at the respective reception system, or if unavailable from the objects stored at the respective reception system, then from the network"[8]

Plaintiff No construction necessary. Alternatively: "the objects being retrieved from the objects stored at the respective reception system, or, if the current versions of the objects are not present from the objects stored at the respective reception system, then from the network"
Defendants "the objects stored at the respective reception system being retrieved from that respective reception system and, if not, retrieved from the network" This language is not met if it is determined that an object is stored at the respective reception system, but it is retrieved from the network without first being retrieved from the respective reception system.
Court "the objects being retrieved from the objects stored at the respective reception system, or, if the current versions of the objects are not present from the objects stored at the respective reception system, then from the network"

Defendants argue that this limitation covers a two-step process of (1) determining whether an object is "available" or "unavailable" in local storage at the "reception system" and (2) determining the currency of the object (and then retrieving a new version of the object, if necessary, from the network). (*See* D.I. 144 at 11-12) Plaintiff argues reading in this two-step process would improperly change the scope of the claim. The Court agrees with Plaintiff. The intrinsic record does not contain a clear disclaimer, disavowal, or definition that would require this term to be construed in such a way that deviates from the plain and ordinary meaning of the

[7]Defendants may raise their indefiniteness defense later in the case.

[8]This term appears in claim 1 of the '967 patent.

claim language, as Defendants' construction would do.

The Court will adopt Plaintiff's construction, which comports with the plain and ordinary meaning of the claim language as read in light of the specification and will be helpful to a jury. (*See, e.g.*, '967 patent at 27:9-11 ("When objects are requested from object storage facility 439, only the latest version of the object will be provided to guarantee currency of information to the user."); *see also id.* at 31:4-15 ("[D]elivery system 20 will advise the reception system 400 either that the version id of the stored object matches the currency value, i.e., the stored object is acceptable, or deliver a current object that will replace the stored object shown to be stale. Alternatively, the response may be that the object was not found. If the version of the stored object is current, the stored object will be used until verified again in accordance with its storage candidacy. If the stored object is stale, the new object delivered will replace the old one and support the desired screen. If the response is object not found, the stored object will be deleted."))

"The method of claim 2 wherein the predetermined plan"[9]

Plaintiff "The method of claim 3 wherein the predetermined plan"
Defendants Indefinite
Court No construction necessary

This phrase appears in claim 4 of the '967 patent, which depends from claim 2. Plaintiff proposes that the Court correct claim 4 to depend from claim 3 rather than from claim 2. "[I]n a

[9]This term appears in claim 4 of the '967 patent.

patent infringement suit, a district court may correct an obvious error in a patent claim." *CBT Flint Partners, LLC v. Return Path, Inc.*, 654 F.3d 1353, 1358 (Fed. Cir. 2011). However, a district court may correct a patent claim only if "(1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims." *Novo Industries, L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1354 (Fed. Cir. 2003). "District courts may correct 'obvious minor typographical and clerical errors in patents,' but 'major errors are subject only to correction by the PTO.'" *Parallel Networks Licensing, LLC v. Int'l Bus. Machines Corp.*, 83 F. Supp. 3d 571, 575 (D. Del. 2015) (quoting *Novo*, 350 F.3d at 1357).

"[A] district court must consider any proposed correction from the point of view of one skilled in the art." *CBT Flint*, 654 F.3d at 1358 (internal quotation marks omitted). "Any correction of a claim has to be consistent with the invention described in the specification and drawings of the original patent." *Id.* at 1359 (internal quotation marks omitted). "[T]he prosecution history should be consulted to ascertain whether there is only a single reasonable construction." *Fargo Electronics, Inc. v. Iris, Ltd., Inc.*, 287 Fed. App'x. 96, 101-02 (Fed. Cir. 2008).

Correction of claim 4 would be improper because claim 4 is reasonably susceptible to more than one interpretation in light of the intrinsic record. *See Parallel Networks*, 83 F. Supp. 3d at 575. Claims 3 and 4 depended from claim 2 before they were amended during prosecution. (D.I. 144 at 13) (citing D.I. 134-13 Ex. A-27 at 65; D.I. 134-4 Ex. A-3 at 2) Specifically, claims 3 and 4 narrowed the scope of the "providing . . . a first subgroup" limitation in claim 2. Pre-amendment claim 3 specified that "providing the first subgroup of commands includes providing

a command for causing the user to be presented with at least one procedure for navigating to a new application." (D.I. 134-4 at 2) Pre-amendment claim 4 specified that "providing the first subgroup of command functions includes providing at least one command for causing the user to be presented with a plurality of different procedure [sic] for navigating to a new application." (*Id.* at 2-3) This language refining the meaning of the "first subgroup" limitation survived amendment in both claims and, therefore, continued to narrow the scope of the "first subgroup" limitation in the same way as it did pre-amendment. ('967 patent at 40:3-4, 40:10-11) This is evidence that claims 3 and 4 were always meant to depend from claim 2. Moreover, even if the Court were inclined to view claim 4's dependence on claim 2 as a typographical error, the error is clearly a "major" error of the type that cannot be corrected under *Novo*. 350 F.3d at 1357 ("[M]ajor errors are subject only to correction by the PTO.").

Having determined that it would be improper to correct claim 4, it is necessary to consider Defendants' argument that claim 4, as it currently appears on the face of the patent, is indefinite because it includes a limitation "wherein ***the predetermined plan*** for storing objects at the respective reception systems includes providing the objects with a storage control parameter in their respective headers" without providing antecedent basis for "the predetermined plan." (D.I. 144 at 12-14) Plaintiff argues that it does not necessarily follow that a claim is indefinite if it contains an uncorrectable mistake. (D.I. 145 at 10) (citing *Masimo Corp. v. Philips Elecs. N. Am. Corp.*, 2015 WL 7737308, at *5 (D. Del. Dec. 1, 2015)) Plaintiff adds that a person of ordinary skill in the art would understand the meaning of this term with reasonable certainty. (D.I. 145 at 10) The Court agrees with Plaintiff.

The phrase "the predetermined plan for storing objects" would be understandable to

reasonable degree of certainty to a person of ordinary skill in the art after reading the specification. (*See, e.g.*, '967 at 6:56-60) ("RS 400 includes a means to selectively store objects according to a ***predetermined storage criterion***, thus enabling frequently used objects to be stored locally at the RS, and causing infrequently used objects to forfeit their local storage location.") (emphasis added) The "predetermined storage criterion" described in the specification informs a person of ordinary skill in the art with reasonable certainty about the scope of "the predetermined plan for storing objects" recited in claim 4, despite claim 4's improper use of the definite article "the" instead of an indefinite article. *See Intellectual Ventures I, LLC v. Ricoh Americas Corp. Ricoh Elecs. Inc.*, 2016 WL 93847, at *1 (D. Del. Jan. 7, 2016) (holding that term reciting "said regulator" was not indefinite despite lack of antecedent basis, because person of ordinary skill in art would understand term in light of specification and claims). Claim 4 is not indefinite.

"permit random movement"[10]

Plaintiff "allow navigation to new applications at the user's behest"
Defendants "allow navigation to any of the computer network applications at the user's behest"
Court "allow navigation to other applications at the user's behest"

Plaintiff's proposal for this term is consistent with the intrinsic evidence. The specification indicates that this term refers to navigation to other applications. (*See* '967 patent at 3:37-44 ("Still further, the method features a navigation subgroup command entitled 'Jump'

[10]This term appears in claims 2-4 of the '967 patent.

which opens a window at the display concurrent with the application, which enables the user to select a ***new application*** for display based on a review of the available applications using either a string-descriptor search, an alphabetical search, a subject category search, or a physical analogy . . . .") (emphasis added); *id.* at 3:27-30 ("Also in preferred form, the method features steps for presenting a subgroup of commands at the command bar for enabling the user to ***randomly navigate to other available applications***.") (emphasis added)) Plaintiff agreed at the hearing that the word "new" in Plaintiff's construction could be replaced with "other" and retain the same meaning. (*See* Tr. at 93) The word "other" better aligns with the intrinsic evidence and will be less confusing to a jury than the word "new," which may imply "newly available." Thus, the Court's construction will replace "new" in Plaintiff's proposal with "other."

The Court rejects Defendants' construction because it is contrary to the claim language and specification of the '967 patent. Specifically, Defendants' construction improperly requires navigability to "***any***" application. As discussed in Plaintiff's responsive brief, Defendants' construction improperly "excludes examples of random movement in the specification providing navigation to only a ***subset*** of applications." (D.I. 158 at 8) Moreover, the Court agrees with Plaintiff's argument that Defendants' construction is inconsistent with dependent claim 10, which depends from claim 2 and provides for random movement to only a subset of applications. (*Id.* at 8-9) (citing *Trustees of Columbia Univ. in City of New York v. Symantec Corp.*, 811 F.3d 1359, 1370 (Fed. Cir. 2016))

"at least one procedure for navigating to a new application / a plurality of different procedure [sic] for navigating to a new application"[11]

Plaintiff No construction necessary. Alternatively: "at least one procedure for moving to a new application / a plurality of different procedures for moving to a new application"
Defendants "procedure(s) enabling the user to search and select among any application in the computer network"
Court "at least one procedure for moving to another application / a plurality of different procedures for moving to another application"

Plaintiff's construction aligns with the plain and ordinary meaning of this term as read in light of the specification. (*See* '967 patent at 18:10; 19:20-56) (describing various commands to move to other applications as part of "navigation interface") The Court will replace the word "new" with "another" in the Court's construction, for the same reasons given with the previous term.

The Court rejects Defendants' inclusion of the phrase "***any*** application" for the same reasons articulated above with respect to the "permit random movement" term. The "procedure" or "procedures" limitations in this term could be satisfied by a procedure or procedures for moving to ***some*** but not all available applications.

The Court disagrees with Defendants that the word "navigating" should be read as "searching and selecting." (D.I. 144 at 15-16) As argued by Plaintiff, in the context of the '967 patent, the word "navigating" simply means "moving." (D.I. 158 at 9) (citing '967 patent at

[11]This term appears in claims 3 and 4 of the '967 patent.

25:54-57) (noting, as example, that "the patent uses navigation to describe movement before the user has completed the logon process, when the user cannot 'search and select' for applications")

Defendants argue that the prosecution history supports their construction, because the applicants distinguished simple methods of moving between applications in the prior art from the claimed invention's use of "a structured, database-type navigation through a potentially large number of unseen applications." (D.I. 144 at 16) (citing D.I. 134-4 Ex. A-4 at 8) The Court does not view Defendants' cited portions of the prosecution history as ***requiring*** the ***separate*** actions of searching and selecting to be embedded in a construction of the word "navigating." The prosecution history is consistent with a construction of the word "navigating" as "moving," as proposed in Plaintiff's construction. (*See* D.I. 134-4 Ex. A-4 at 7) (Applicants stating that "the noted dependent claims further include limitation to ***navigation, i.e., movement*** through applications of the interactive service.") (emphasis added)

"storage control parameter"[12]

Plaintiff "a parameter that identifies the storage characteristic for the object"
Defendants "a parameter that identifies the storage characteristic for the object for initial and/or continued storage"
Court "a parameter that identifies the storage characteristic for the object, which may be for initial and/or continued storage"

The parties agreed on a modified version of Defendants' construction at the hearing. (*See* Tr. at 103) The Court will adopt this agreed upon construction.

[12]This term appears in claims 4 and 13 of the '967 patent.

"computer network / the network"[13]

Plaintiff No construction necessary. Alternatively: "two or more interconnected computers"
Defendants "an information network consisting of a single central, host computer providing the objects to generate the screens of display at the reception systems"
Court "two or more interconnected computers"

Plaintiff argues that no construction is necessary for this term or, alternatively, that the term be given its plain and ordinary meaning, as reflected in dictionaries from the pertinent time. (D.I. 145 at 6-7) (citing, e.g., D.I. 134-5 Ex. A-8 (defining "computer network" as "[a] complex consisting of two or more interconnected computing units")) The Court agrees with Plaintiff's alternative construction, which aligns with the plain and ordinary meaning of the claim language as read in light of the specification and will be helpful for a jury. (*See, e.g.*, '967 patent at 5:17-21) (describing multiple "layers" in network that may be implemented using "multiple servers")

Defendants propose replacing the word "computer" with "information." This proposal is not supported by the intrinsic record and would be confusing to a jury. Moreover, there is no disclaimer or disavowal in the intrinsic evidence that would support Defendants' proposal to incorporate functionality related to a "single central, host computer" – which is merely an aspect of one embodiment of the invention shown in Figure 2 (*see* D.I. 144 at 9-10) – into the Court's construction.

[13]This term appears in claim 1 of the '967 patent.

B. '849 Patent

"object(s)"[14]

Plaintiff "separate data structures having a uniform, self-defining format that are known to the reception systems, including data types, such as interpretable programs and presentation data for display at the monitor screen of the user's personal computer"
Defendants "data structures" or "structures that package data"[15]
Court "data structure(s)"

As noted above, the '849 patent shares a substantially identical specification with the '967 patent. The parties submitted identical arguments for this term for both the '849 and '967 patents. (*See generally* D.I. 144 at 2-4; D.I. 145 at 2-3) For the reasons already discussed with respect to the '967 patent, the Court will construe this term to mean "data structure(s)."

"application(s)"[16]

Plaintiff "information events composed of a sequence of one or more pages opened at a screen"
Defendants "information events composed of a sequence of one or more pages opened at a screen to provide requested information and/or transaction operations" However, neither this construction nor the plain language provides sufficient guidance to a person of ordinary skill to determine what constitutes two different applications, rendering the claim indefinite.

[14]This term appears in claims 1, 3, and 14 of the '849 patent.

[15]Defendants proposed these alternative constructions at the hearing. (Tr. at 15)

[16]This term appears in claims 1, 4, 7, 8, and 14 of the '849 patent.

Court "information events composed of a sequence of one or more pages opened at a screen"

The parties submitted identical arguments for this term for both the '849 and '967 patents. (*See generally* D.I. 144 at 4-7; D.I. 145 at 3-5) For the reasons already discussed with respect to the '967 patent, the Court will construe this term to mean "information events composed of a sequence of one or more pages opened at a screen."

"selectively storing advertising objects at a store established at the reception system"[17]

Plaintiff "storing advertisement objects if they meet certain criteria, such as being non-volatile, non-critical to network integrity, or if they are critical to ensuring reasonable response time, at a store established at the reception system"
Defendants "pre-fetching advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications"
Court "pre-fetching advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications"

Plaintiff argues that this term should be construed in accordance with a portion of the specification that discusses "objects" generally. (D.I. 145 at 13-14) (citing '849 patent at 6:57-7:3) Defendants counter that the term should be construed according to how it is used in sections of the specification that specifically relate to ***advertising*** objects. (D.I. 144 at 19-20) The Court agrees with Defendants.

Defendants' construction better aligns with how the word "selectively" is used in the claims of the '849 patent. Independent claim 8 includes a limitation reciting "structuring

[17]This term appears in claims 1 and 14 of the '849 patent.

advertising so that it may be ***selectively supplied to and retrieved at the reception systems*** for presentation to the respective users ***in accordance with the characterizations established for the respective reception system users*** . . ." (emphasis added). Similarly, independent claim 21 recites: "structuring advertising separately from the applications so that the advertising may be ***selectively supplied***, through the network, ***to and retrieved at the reception systems*** for presentation to the respective users along with a requested application ***in accordance with the characterizations established for the respective reception system users***" (emphasis added). As read in the context of claims 8 and 21, "selectively" relates to "characterizations established for the respective reception system users" and involves the ***retrieval*** of customized advertising based on these characterizations. This is in contrast to Plaintiff's incorrect construction of "selectively" as being directed to the criticality or non-volatile nature of advertisement objects.

This meaning of "selectively" applies to asserted claims 1 and 14 because "the same phrase in different claims of the same patent should have the same meaning" unless "'it is clear' that the same phrase has different meanings in different claims." *In re Varma*, 816 F.3d 1352, 1363 (Fed. Cir. 2016) (quoting *Fin Control Sys. Pty, Ltd. v. OAM, Inc.*, 265 F.3d 1311, 1318 (Fed. Cir. 2001)). Here, it is not clear the same phrase has different meanings.

Defendants' construction is further supported by the specification, which clearly describes the "invention" as a whole as including "pre-fetched" advertising as an improvement over the prior art, with such advertising being displayed "concurrently" with applications. ('849 patent at 1:24-25 ("[T]he method [of the invention] featur[es] steps for presenting advertising concurrently with applications . . . ."); *id.* at 3:16-21 ("[I]n accordance with the method [of the invention], the user reception system at which the advertising is presented includes facility for storing and

managing the advertising so that it can be pre-fetched from the network and staged at the reception system in anticipation of being called for presentation."))

"storing a predetermined amount of the advertising data in a store established at the respective reception systems"[18]

Plaintiff No construction necessary. Alternatively: "storing a certain amount of advertising data in a store established at the respective reception systems"
Defendants "Storing a certain (i.e., specific) amount of advertising data determined independent of the requested applications in a store established at the respective reception systems"
Court No construction necessary

Plaintiff's alternative construction and Defendants' construction erroneously read out the temporal "predetermined" limitation from the claim language, which is readily understandable by a jury and needs no further construction. Defendants' construction further errs by ***requiring*** that the "amount of advertising data" be determined "independent of the requested applications," but there is no support in the intrinsic evidence cited by Defendants for inclusion of such a limitation. (*See* D.I. 144 at 17-18; D.I. 155 at 10-11) No construction is necessary for this term; its plain and ordinary meaning is readily ascertainable by simply reading the claim language.

[18]This term appears in claim 8 of the '849 patent.

"computer network / the network"[19]

Plaintiff No construction necessary. "two or more interconnected computers"
Defendants "an information network consisting of a single central, host computer providing the objects to generate the screens of display at the reception systems"
Court "two or more interconnected computers"

The parties submitted identical arguments for this term for both the '849 and '967 patents. (*See generally* D.I. 144 at 8-11; D.I. 145 at 6-7) For the reasons already discussed with respect to the '967 patent, the Court will construe this term as "two or more interconnected computers."

"structuring advertising in a manner compatible to that of the applications so that it may be presented"[20]

Plaintiff No construction necessary. Alternatively: "organizing advertising in a manner compatible to that of the applications so that it may be presented"
Defendants "formatting advertising for use with a plurality of applications"
Court "formatting advertising for potential use with a plurality of applications"

Defendants' construction aligns with the Board of Patent Appeals and Interferences's

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[19]This term appears in claims 1, 8, 9, 12, and 14 of the '849 patent.

[20]This term appears in claims 1 and 14 of the '849 patent.

interpretation of the word "structuring" as "requir[ing] no more than formatting the displayed page to have applications and advertising in different portions of the screen display." (D.I. 134-16 Ex. B-2 at 37) Defendants' construction is also consistent with the specification, which describes applications and advertising as being comprised of "objects" that have a "self-defining ***format***." ('849 patent at 5:51-65; 15:7-12) (emphasis added)

Plaintiff objects to Defendants' construction, arguing that the construction should not include a requirement that advertising be ***used*** with a plurality of applications. (D.I. 145 at 17) The Court agrees with Plaintiff that the intrinsic record does not support including a requirement in this term that advertising ***actually be used*** in two or more applications. Thus, the Court will add the word "potential" before "use" to make clear that this claim limitation may be proven so long as advertising is structured to be ***compatible*** with two or more applications such that the advertising and applications may both be presented.

The Court rejects Plaintiff's construction, because "structuring" is better characterized as "formatting" rather than "organizing," in light of the intrinsic record, which describes use of particularly ***formatted*** "objects" by applications and advertising. (*See* '849 patent at 5:54) ("Objects have a uniform, self-defining ***format*** . . . .") (emphasis added)

C. '601 Patent

"recursively embedding the state information in all identified continuations"[21]

Plaintiff "modifying each identified continuation to include state information"
Defendants "repeatedly applying a program to each identified continuation to modify all identified continuations to include state information"
Court "applying a process one or more times to each identified continuation to modify all identified continuations to include state information"

Defendants argue that Plaintiff's construction should be rejected because it does not include language corresponding to "recursively." (D.I. 144 at 24-25) The Court agrees with Defendants.

The intrinsic record does not provide sufficient guidance as to the meaning of "recursively" to construe the term without resort to extrinsic evidence. In fact, the detailed description section of the '601 patent's specification does not even mention recursion. Therefore, the Court considers Defendants' cited dictionary definitions (*see* D.I. 134-29 Exs. C-4, C-5, C-6, C-7) in construing this term.[22]

Defendants propose a construction that interprets the word "recursively" to mean "repeatedly applying a program." Plaintiff counters that this interpretation is improper because there is no requirement that "embedding" be performed "repeatedly," because, for example, there may only be one "identified continuation" for which embedding needs to be performed. (*See* D.I.

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[21]This term appears in claims 14, 20, 24, 40, 51, and 60 of the '601 patent.

[22]Plaintiff references Defendants' dictionary definitions in support of Plaintiff's construction. (D.I. 158 at 14)

145 at 17-19) Plaintiff also argues that embedding need not necessarily be performed by a "program." (*Id.*) The Court agrees with Plaintiff that Defendants' use of the word "program" is unsupported, as there is no evidence in the record that would require the claim scope to be limited to programs, to the exclusion of, for example, "processes." (*See, e.g.*, D.I. 134-29 Ex. C-6) (disclosing definition of "recursive process") The Court also agrees with Plaintiff that the embedding need not be repeated, as there is no evidence in the record that would require a "repeatedly" limitation. Thus, the Court's construction replaces "program" with the broader term "process" and makes clear that a process may be run ***one*** or more times and still meet this claim limitation.

"continuation(s)"[23]

Plaintiff "a new request in a conversation which a client may send to a server, such as, for example, a hyperlink"
Defendants "a new request which a client may send to a server, such as, for example a hyperlink"
Court "a new request which a client may send to a server, such as, for example a hyperlink"

The parties largely agree on the construction of this term, with the exception that Defendants do not include the phrase "in a conversation" in their construction. Defendants' proposed construction originates from the definition provided for this term in the specification. ('601 patent at 2:47-57) The Court rejects Plaintiff's proposed addition of "in a conversation" to the Court's construction for this term. While this limitation may be in line with many (if not all) embodiments in the specification, it is not ***required*** by the specification. *See Thorner*, 669 F.3d

[23]This term appears in claims 14, 20, 24, 40, 51, 53, 56, and 60 of the '601 patent.

at 1366-67 ("We do not read limitations from the specification into claims; we do not redefine words.").

"state detection means for detecting when the request for a service requires preservation of the state information"[24]

Plaintiff Function: "detecting when the request for a service requires preservation of the state information" Structure: "a client or server performing either (a) the algorithm set forth in the box labeled 510 in FIG. 4 and discussed at 11:55-58, or (b) the algorithm set forth in step 810 of FIG 8 and discussed at 13:67-14:6"
Defendants Function: "detecting when the request for service requires preservation of the state information" Structure: "server 410' performing either: (a) the algorithm set in the box labeled 510 in FIG. 4 and discussed at 11:55-58, or (b) the algorithm set forth in step 810 of FIG 8 and discussed at 13:67-14:6."
Court Function: "detecting when the request for a service requires preservation of the state information" Structure: "a client or server performing either (a) the algorithm set forth in the box labeled 510 in FIG. 4 and discussed at 11:55-58, or (b) the algorithm set forth in step 810 of FIG 8 and discussed at 13:67-14:6"

The parties agree that this term should be construed pursuant to 35 U.S.C. § 112, ¶ 6.[25] The parties also agree upon the function for this means-plus-function term. The parties' sole dispute for this term is whether the associated structure is limited to "server 410'," as argued by Defendants, or whether ***either*** a client ***or*** a server could provide the associated structure, as

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[24]This term appears in claim 40 of the '601 patent.

[25]The parties agree as to the applicability of 35 U.S.C. § 112, ¶ 6 for all of the disputed means-plus-function terms in the Patents-in-Suit.

argued by Plaintiff.

"A structure disclosed in the specification qualifies as a 'corresponding structure' if the specification or the prosecution history 'clearly links or associates that structure to the function recited in the claim.'" *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311-12 (Fed. Cir. 2012) (quoting *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997)). "Even if the specification discloses a 'corresponding structure,' the disclosure must be adequate; the patent's specification must provide 'an adequate disclosure showing what is meant by that [claim] language.'" *Id.* at 1311-12 (quoting *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc)).

The specification adequately discloses a client-side implementation of the "state detection means." ('610 patent at 16:23-26) ("For example, the server 410' could contain a downloadable program which causes the state to be stored at the client. Using this approach, all or part of the state could be stored on the client.") The same logic described as running on server 410' could be implemented on a client via the downloadable program, according to the specification.

Testimony submitted by Plaintiff's expert, Dr. Douglas Schmidt, further supports Plaintiff's construction, and the Court credits this testimony. (*See* D.I. 159 ¶¶ 21-23) Specifically, the Court credits Dr. Schmidt's assertion that a person of ordinary skill in the art at the time of the invention would have known how to implement the logic designed for server 410' on a client using a downloadable program. (*See id.*)

"search means for identifying all continuations in an output from said service, in response to said step of detecting"[26]

Plaintiff Function: "identifying all continuations in an output from said service, in response to said step of detecting" Structure: "a client or server performing the identifying portion of either of (a) the algorithm depicted at step 520 of FIG. 4 and discussed at 11:61-64, or (b) the algorithm depicted in steps 811 and 812 of FIG. 8 and discussed at 14:29-63"
Defendants Function: "identifying all continuations in an output from said service, in response to said step of detecting" Structure: "server 401' performing the identifying portion (to the extent any such portion exists) of either of (a) the algorithm depicted at step 520 of FIG. 4 and discussed at 11:61-64, or (b) the algorithm depicted in steps 811 and 812 of FIG. 8 and discussed at 14:29-63"
Court Function: "identifying all continuations in an output from said service, in response to said step of detecting" Structure: "a client or server performing the identifying portion of either of (a) the algorithm depicted at step 520 of FIG. 4 and discussed at 11:61-64, or (b) the algorithm depicted in steps 811 and 812 of FIG. 8 and discussed at 14:29-63"

The parties again dispute only the structure for this means-plus-function term, again disagreeing only as to whether the corresponding structure must be implemented using a server. As with the "state detection means" term, the Court agrees with Plaintiff that the corresponding structure for the "search means" term is either a client or a server. The specification discloses that algorithms implementing the search means could run on a client. ('601 patent at 16:30-32) The Court also credits Dr. Schmidt's testimony in support of this proposition. (*See* D.I. 159 ¶¶ 21-22, 24)

[26]This term appears in claim 40 of the '601 patent.

"converter means for recursively embedding the state information in all identified continuations"[27]

Plaintiff Function: "recursively embedding the state information in all identified continuations" Structure: "a client or server performing the recursively embedding portion of either of (a) the algorithm depicted at step 520 of FIG. 4 and discussed at 11:61-64, or (b) the algorithm depicted in steps 811 and 812 of FIG. 8 and discussed at 14:29-63"
Defendants Function: "recursively embedding the state information in all identified continuations" Structure: "server 401' performing either of (a) the algorithm depicted at step 520 of FIG. 4 and discussed at 11:61-64, or (b) the algorithm depicted in steps 811 and 812 of FIG. 8 and discussed at 14:29-63"
Court Function: "recursively embedding the state information in all identified continuations" Structure: "a client or server performing the recursively embedding portion of either of (a) the algorithm depicted at step 520 of FIG. 4 and discussed at 11:61-64, or (b) the algorithm depicted in steps 811 and 812 of FIG. 8 and discussed at 14:29-63"

The parties again dispute whether this term's corresponding structure must be a server. The Court agrees with Plaintiff that the specification discloses either a client or a server implementation for this term and again credits Dr. Schmidt's testimony. ('601 patent at 16:30-32; *see* D.I. 159 ¶¶ 21-22, 24) The parties also dispute whether the structure should be limited to only the "recursively embedding portion" of the identified algorithms. The Court agrees with Plaintiff that the construction for this term should be limited to the structure that actually performs the recursive embedding. This is the only structure that would be "clearly link[ed]" to the associated function. *Noah*, 675 F.3d at 1311-12.

[27]This term appears in claim 40 of the '601 patent.

"communication means for communicating the output to the client"[28]

Plaintiff Function: "communicating the output to the client" Structure: "a server using HTTP depicted in Fig. 7a or a client running downloadable server code on the client discussed at 16:30-43"
Defendants Function: "communicating the output to the client" Structure: "server 410"'
Court Function: "communicating the output to the client" Structure: "a server using HTTP depicted in Fig. 7a or a client running downloadable server code on the client discussed at 16:30-43"

The parties dispute whether the disclosed structure is limited to a server. The Court agrees with Plaintiff that the specification discloses that this term may be implemented on either a client or a server and again credits Dr. Schmidt's testimony. ('601 patent at 16:30-43; *see* D.I. 159 ¶¶ 21-22, 25)

"detecting," "performing," "identifying," "recursively embedding," and "communicating"[29]

Plaintiff No construction necessary
Defendants These are distinct actions that must be performed in the listed order
Court The parties shall submit supplemental briefing on whether these actions must be performed in the listed order

[28]This term appears in claim 40 of the '601 patent.

[29]This term appears in claims 14, 20, and 24 of the '601 patent.

"state detection means for detecting," "search means for identifying," "converter means for recursively embedding," and "communication means for communicating"[30]

Plaintiff No construction necessary
Defendants These are distinct functional requirements that must be performed in the listed order
Court The parties shall submit supplemental briefing on whether these actions must be performed in the listed order

"receiving," "identifying," "recursively embedding," and "communicating"[31]

Plaintiff No construction necessary
Defendants These are distinct actions that must be performed in the listed order
Court The parties shall submit supplemental briefing on whether these actions must be performed in the listed order

Defendants' constructions would require that each of these "actions" or "functional requirements" be "distinct." Plaintiff argues that there is no support for such a requirement, and Defendants cite no support in their briefs. (*See generally* D.I. 144 at 22-23; D.I. 155 at 13-14) Moreover, Defendants did not specifically address the "distinct" limitation at the hearing. Thus, the Court is not persuaded to include a "distinct" limitation in its constructions for these terms.

Defendants' constructions would also require a fixed ordering for each "action" or "functional requirement." (D.I. 144 at 22-23) "'Unless the steps of a method actually recite an

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[30]This term appears in claim 40 of the '601 patent.

[31]This term appears in claims 51 and 60 of the '601 patent.

order, the steps are not ordinarily construed to require one. However, such a result can ensue when the method steps implicitly require that they be performed in the order written.'" *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369 (Fed. Cir. 2003) (quoting *Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2001)). "*Interactive Gift* recites a two-part test for determining if the steps of a method claim that do not otherwise recite an order, must nonetheless be performed in the order in which they are written." *Altiris*, 318 F.3d at 1369. "First, we look to the claim language to determine if, as a matter of logic or grammar, they must be performed in the order written." *Id.* "If not, we next look to the rest of the specification to determine whether ***it*** 'directly or implicitly requires such a narrow construction.'" *Id.* at 1370 (emphasis in original; quoting *Interactive Gift*, 256 F.3d at 1343).

The Court agrees with Defendants that there is an implied order for at least some of these terms. This is evident from the claim language. For example, the "recursively embedding" step in claim 14 operates on "all identified continuation[s]." Thus, claim 14 requires that continuations be identified before recursive embedding may take place. However, as argued by Plaintiff at the hearing, it is unclear from the claim language and specification whether ***all*** identifying must be performed before ***any*** embedding takes places. (*See* Tr. at 163) ("[Y]ou could think of this as happening in two orders, both of which are consistent with the claim language. One, you identify all the hyperlinks, then you embed in all the identified hyperlinks. Or [two] you identify, embed, identify, embed, identify, embed.")

The Court cannot determine on the current record, and given the briefing submitted, whether any required ordering for these terms should be on a per-unit (e.g., per-continuation) basis or whether ***all*** of each individual step must be completed before moving on to subsequent

steps. Thus, the Court will order the parties to meet and confer and submit supplemental briefing on whether each of the actions/functional requirements in these terms must be performed in the order in which they appear in the claims and, if so, whether each action must be completed before proceeding to the next action. The Court will also order the parties to address ***each*** of the disputed actions rather than focusing on exemplary actions – such as "identifying" and "recursively embedding," which Plaintiff chose for exemplary analysis in its original briefing.[32]

"[dynamically downloading computer program code to the client to] perform said step of embedding which is responsive to said step of communicating the output to the client"[33]

Plaintiff No construction necessary
Defendants Indefinite
Court No construction necessary

Defendant argues that this term is indefinite because "[t]he requirements of claims 60 and 63 are . . . incompatible." (D.I. 144 at 29) Claim 63 depends from claim 60. Defendants argue that claim 63's requirement that "embedding" be "responsive to said step of communicating" renders claim 63 indefinite because embedding would have to occur at a later time than "communicating," which would be contrary to the language in claim 60. (*Id.* at 28-29) Plaintiff

[32]Regarding the ordering of means-plus-function terms, Plaintiff argues that requiring an "order" for physical, structural elements of a claim is "nonsensical." (D.I. 145 at 26) The Court agrees. Thus, in their supplemental briefing, the parties shall only address the ***actions*** performed by these means-plus-function terms rather than structural limitations, for which a temporal limitation would make no sense.

[33]This term appears in claim 63 of the '601 patent.

counters that claim 63 merely recites an additional requirement that a client download a computer program to perform embedding during some later time after the "communicating" step in claim 60 is complete. (D.I. 145 at 27) The Court agrees with Plaintiff. Defendants have failed to show that this term is indefinite, because one of ordinary skill in the art could determine the scope of claim 63, with reasonable certainty, by reading claims 60 and 63 in light of the specification. *See Nautilus*, 134 S. Ct. at 2124.

"filtering one of said hyperlinks and data output from said services according to a predetermined criteria"[34]

Plaintiff "removing one of said hyperlinks and data output from said services according to criteria determined prior to removing"
Defendants "removing from said output of said services one of said hyperlinks and data according to criteria determined prior to receiving said request from said client"
Court "removing one of said hyperlinks and data output from said services according to criteria determined prior to removing"

"adding one of said hyperlinks and data to said output from said services according to a predetermined criteria"[35]

Plaintiff "inserting one of said hyperlinks and data to said output from said services according to criteria determined prior to inserting"
Defendants "inserting in said output of said services one of said hyperlinks and data according to criteria determined prior to receiving said request from said client"

[34]This term appears in claim 58 of the '601 patent.

[35]This term appears in claim 59 of the '601 patent.

Court "inserting one of said hyperlinks and data to said output from said services according to criteria determined prior to inserting"

Defendants point to examples from the specification and argue that these terms should be limited to a particular aspects of these examples, including a limitation that the "criteria" be "determined prior to receiving said request from said client." (D.I. 144 at 29-30) There is no clear disclaimer or disavowal in the intrinsic record that would support inclusion of this limitation in the Court's constructions for these terms. Plaintiff's constructions comport with the plain and ordinary meaning of the claim language in light of the specification. (*See* '601 patent at 17:28-30 (discussing "filter[ing] all HTML text and leav[ing] out phrases and hypertext links which have been determined to be objectionable"); *id.* at 17:50-52 ("[A] hypertext link to the company's home page would be inserted into the HTML text returned to the client.")) Therefore, the Court will adopt Plaintiff's constructions for these terms.

D. '346 Patent

"federated computing environment"[36]

Plaintiff "a set of distinct entities, such as enterprises, organizations, institutions, etc., that cooperate to provide a single-sign-on, ease-of-use experience to a user, wherein the enterprises need not have a direct, preestablished, relationship defining how and what information to transfer about a user"
Defendants "a set of distinct entities, such as enterprises, organizations, institutions, etc., that cooperate to provide a single-sign-on, ease-of-use experience to a user. A federated environment differs from a typical single-sign-on environment in that two enterprises need not have a direct, preestablished, relationship defining how and what information to transfer about a user"

[36]This term appears in claim 1 of the '346 patent.

Court
"a set of distinct entities, such as enterprises, organizations, institutions, etc., that cooperate to provide a single-sign-on, ease-of-use experience to a user, wherein the enterprises need not have a direct, preestablished, relationship defining how and what information to transfer about a user"

The parties' dispute with respect to this term is whether, as Defendants contend, the term should be construed to specify that "[a] federated environment differs from a typical single-sign-on environment." Plaintiff argues that this limitation "would confuse the jury." (D.I. 145 at 30) The Court agrees and will not include Defendants' proposed additional limitation in its construction. Moreover, Defendants' inclusion of "need not" in their proposed construction, and their contention that it should be read as "must not," is confusing and unsupported by the intrinsic evidence. (*See* D.I. 158 at 20) (citing D.I. 144 at 30)

III. CONCLUSION

The Court will construe the disputed terms as described above. An appropriate Order follows.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INTERNATIONAL BUSINESS MACHINES CORPORATION,	:	
Plaintiff,	:	
v.	:	C.A. No. 15-137-LPS
THE PRICELINE GROUP INC., KAYAK SOFTWARE CORPORATION, OPENTABLE, INC., AND PRICELINE.COM LLC,	:	
Defendants.	:	

ORDER

At Wilmington, this **28th** day of **October, 2016**:

For the reasons set forth in the Memorandum Opinion issued this date,

IT IS HEREBY ORDERED that:

(1) The parties shall submit supplemental briefing on whether each of the disputed action/functional requirement terms (hereinafter "actions") in claims 14, 20, 24, 40, 51, and 60 of U.S. Patent No. 5,961,601 must be performed in the order in which they are listed in these claims and, if so, whether each action must be ***completed*** before proceeding to the next action.[1] The briefing shall address ***each*** of the disputed actions, rather than focusing on exemplary actions – such as "identifying" and "recursively embedding," which Plaintiff chose for exemplary analysis

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[1]The disputed actions are "**detecting**," "**performing**," "**identifying**," "**recursively embedding**," and "**communicating**" in claims 14, 20, and 24; "**detecting**," "**identifying**," "**recursively embedding**," and "**communicating**" in claim 40; and "**receiving**," "**identifying**," "**recursively embedding**," and "**communicating**" in claims 51 and 60.

in its original briefing. (*See* D.I. 145 at 25-26) The supplemental briefing shall comply with the following additional requirements:

(a) Simultaneous opening briefs of no longer than seven (7) pages shall be filed no later than **November 10, 2016**.

(b) Responsive briefs of no longer than four (4) pages shall be filed no later than **November 17, 2016.**

(2) The disputed claim terms of U.S. Patent Nos. 5,796,967 ("'967 patent"); 7,072,849 ("'849 patent"); 5,961,601 ("'601 patent"); and 7,631,346 ("'346 patent") are construed as follows:

"**Object(s)**," as used in claims 1, 3, 4, 12, and 13 of the '967 patent, means "data structure(s)."

"**Application(s)**," as used in claims 1, 3, 4, 12, and 13 of the '967 patent, means "information events composed of a sequence of one or more pages opened at a screen."

"**The objects being retrieved from the objects stored at the respective reception system, or if unavailable from the objects stored at the respective reception system, then from the network**," as used in claim 1 of the '967 patent, means "the objects being retrieved from the objects stored at the respective reception system, or, if the current versions of the objects are not present from the objects stored at the respective reception system, then from the network."

"**The method of claim 2 wherein the predetermined plan**," as used in claim 4 of the '967 patent, requires no construction.

"**Permit random movement**," as used in claims 2, 3, and 4 of the '967 patent, means

"allow navigation to other applications at the user's behest."

"**At least one procedure for navigating to a new application / a plurality of different procedure [sic] for navigating to a new application**," as used in claims 3 and 4 of the '967 patent, means "at least one procedure for moving to another application / a plurality of different procedures for moving to another application."

"**Storage control parameter**," as used in claims 4 and 13 of the '967 patent, means "a parameter that identifies the storage characteristic for the object, which may be for initial and/or continued storage."

"**Computer network / the network**," as used in claim 1 of the '967 patent, means "two or more interconnected computers."

"**Partition(s)**," as used in claims 1, 12, and 13 of the '967 patent, is construed to have its plain and ordinary meaning.

"**Command function(s)**," as used in claims 1 and 4 of the '967 patent, means "a function that enables the user to interact with the reception system and other elements of the network."

"**Object(s)**," as used in claims 1, 3, and 14 of the '849 patent, means "data structure(s)."

"**Application(s)**," as used in claims 1, 4, 7, 8, and 14 of the '849 patent, means "information events composed of a sequence of one or more pages opened at a screen."

"**Selectively storing advertising objects at a store established at the reception system**," as used in claims 1 and 14 of the '849 patent, means "pre-fetching advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications."

"**Storing a predetermined amount of the advertising data in a store established at**

the respective reception systems," as used in claims 8 of the '849 patent, requires no construction at this time.

"**Computer network / the network**," as used in claims 1, 8, 9, 12, and 14 of the '849 patent, means "two or more interconnected computers."

"**Structuring advertising in a manner compatible to that of the applications so that it may be presented**," as used in claims 1 and 14 of the '849 patent, means "formatting advertising for potential use with a plurality of applications."

"**Portion**," as used in claims 1 and 14 of the '849 patent, is construed to have its plain and ordinary meaning.

"**Recursively embedding the state information in all identified continuations**," as used in claims 14, 20, 24, 40, 50, 51, and 60 of the '601 patent, means "applying a process one or more times to each identified continuation to modify all identified continuations to include state information."

"**Continuation(s)**," as used in claims 14, 20, 24, 40, 51, 53, 56, and 60 of the '601 patent, means "a new request which a client may send to a server, such as, for example a hyperlink."

"**State detection means for detecting when the request for a service requires preservation of the state information**," as used in claim 40 of the '601 patent, has a function of "detecting when the request for a service requires preservation of the state information" and a structure of "a client or server performing either (a) the algorithm set forth in the box labeled 510 in FIG. 4 and discussed at 11:55-58, or (b) the algorithm set forth in step 810 of FIG 8 and discussed at 13:67-14:6."

"**Search means for identifying all continuations in an output from said service, in**

response to said step of detecting," as used in claim 40 of the '601 patent, has a function of "identifying all continuations in an output from said service, in response to said step of detecting" and a structure of "a client or server performing the identifying portion of either of (a) the algorithm depicted at step 520 of FIG. 4 and discussed at 11:61-64, or (b) the algorithm depicted in steps 811 and 812 of FIG. 8 and discussed at 14:29-63."

"**Converter means for recursively embedding the state information in all identified continuations**," as used in claim 40 of the '601 patent, has a function of "recursively embedding the state information in all identified continuations" and a structure of "a client or server performing the recursively embedding portion of either of (a) the algorithm depicted at step 520 of FIG. 4 and discussed at 11:61-64, or (b) the algorithm depicted in steps 811 and 812 of FIG. 8 and discussed at 14:29-63."

"**Communication means for communicating the output to the client**," as used in claim 40 of the '601 patent, has a function of "communicating the output to the client" and a structure of "a server using HTTP depicted in Fig. 7a or a client running downloadable server code on the client discussed at 16:30-43."

"**[Dynamically downloading computer program code to the client to] perform said step of embedding which is responsive to said step of communicating the output to the client**," as used in claim 63 of the '601 patent, requires no construction at this time.

"**Filtering one of said hyperlinks and data output from said services according to a predetermined criteria**," as used in claim 58 of the '601 patent, means "removing one of said hyperlinks and data output from said services according to criteria determined prior to removing."

"**Adding one of said hyperlinks and data to said output from said services according to a predetermined criteria**," as used in claim 59 of the '601 patent, means "inserting one of said hyperlinks and data to said output from said services according to criteria determined prior to inserting."

"**HTML**," as used in claim 24 of the '601 patent, means "HyperText Markup Language."

"**CGI program**," as used in claim 24 of the '601 patent, means "Common Gateway Interface program."

"**Stateless protocol**," as used in claims 14, 20, 24, 40, 51, and 60 of the '601 patent, means "a protocol where every request from a client to a server is treated independently of previous connections."

"**Client**," as used in claims 14, 20, 24, 40, 51, 60, and 63 of the '601 patent, means "a computer which issues commands to the server which performs the task associated with the command."

"**Conversation(s)**," as used in claims 14, 20, 24, 40, 51, and 60 of the '601 patent, means "a sequence of communications between a client and server in which the server responds to each request with a set of continuations and the client always picks the next request from the set of continuations."

"**State information**," as used in claims 20, 24, 40, 51, 53, 56, and 60 of the '601 patent, means "information about a conversation between a client and a server."

"**Federated computing environment**," as used in claim 1 of the '346 patent, means "a set of distinct entities, such as enterprises, organizations, institutions, etc., that cooperate to provide a single-sign-on, ease-of-use experience to a user, wherein the enterprises need not have

a direct, preestablished, relationship defining how and what information to transfer about a user."

"**A method for managing user authentication within a distributed data processing system, wherein a first system and a second system interact within a federated computing environment and support single-sign-on operations in order to provide access to protected resources, at least one of the first system and the second system comprising a processor, the method comprising**," which is the preamble of claim 1 of the '346 patent, is construed to be limiting.

"**Protected resource(s)**," as used in claim 1 of the '346 patent, means "an application, an object, a document, a page, a file, executable code, or other computational resource, communication-type resource, etc., identified by a Uniform Resource Locator (URL), or more generally, a Uniform Resource Identifier (URI), that can only be accessed by an authenticated and/or authorized user."

"**Single-sign-on operation(s)**," as used in claims 1 and 3 of the '346 patent, means "an authentication process whereby the user is subsequently not required to perform another authentication operation during a particular user session."

"**User authentication**," as used in claim 1 of the '346 patent, means "the process of validating a set of credentials that are provided by a user or on behalf of a user."

"**Fourth system**," as used in claim 11 of the '346 patent, means "a system other than the first system, second system, and client system."

"**Pull authentication information**," as used in claim 3 of the '346 patent, means "obtain authentication information from the first system where a request for authentication information originates from the second system."

"**Back-channel information retrieval mechanism**," as used in claim 8 of the '346 patent, means "a retrieval mechanism that involves communication directly from a second system to a first system."

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UNITED STATES DISTRICT JUDGE