IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INTERNATIONAL BUSINESS MACHINES CORPORATION, Plaintiff, v. RAKUTEN, INC., and EBATES PERFORMANCE MARKETING, INC. DBA RAKUTEN REWARDS, Defendants.	Civil Action No. 21-461-GBW

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MEMORANDUM OPINION

June 1, 2023
Wilmington, Delaware

GREGORY B. WILLIAMS
UNITED STATES DISTRICT JUDGE

Pending before the Court is the issue of claim construction of multiple terms in the following patents: U.S. Patent Nos. 7,072,849 ("the '849 patent"), 6,697,861 ("the '861 patent"), 7,962,960 ("the '960 patent"), and 8,072,968 ("the '968 patent"). The '849 patent is asserted by Plaintiff International Business Machines Corporation ("IBM" or "Plaintiff") and the '861, '960, and '968 patents are asserted by Defendants Rakuten, Inc. and Ebates Performance Marketing, Inc. dba Rakuten Rewards (collectively, "Rakuten" or "Defendants"). D.I. 237 at 1-4.

The Court has considered the parties' joint claim construction brief, the accompanying appendix, and notice of subsequent authority. D.I. 237; D.I. 238; D.I. 291. The Court held a claim construction hearing on April 4, 2023 ("Tr. __").

I. LEGAL STANDARDS

A. Claim Construction

"'[T]he 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) (citation omitted); *Aventis Pharms. Inc. v. Amino Chemicals Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013) (same). "[T]here is no magic formula or catechism for conducting claim construction." *Phillips*, 415 F.3d at 1324. The Court is free to attach the appropriate weight to appropriate sources "in light of the statutes and policies that inform patent law." *Id.* The ultimate question of the proper construction of a patent is a question of law, although "subsidiary factfinding is sometimes necessary." *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 326–27 (2015); *see Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996) ("the construction of a patent . . . is exclusively within the province of the court.").

"The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history." *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing *Phillips*, 415 F.3d at 1313); *Unwired Planet, LLC v. Apple Inc.*, 829 F.3d 1353, 1358 (Fed. Cir. 2016) (similar). The "'only two exceptions to this general rule'" are (1) when a patentee defines a term or (2) disavowal of "'the full scope of a claim term either in the specification or during prosecution.'" *Thorner*, 669 F.3d at 1365 (citation omitted).

The Court "'first look[s] to, and primarily rel[ies] on, the intrinsic evidence,'" which includes the claims, written description, and prosecution history and "'is usually dispositive.'" *Personalized Media Commc'ns, LLC v. Apple Inc.*, 952 F.3d 1336, 1340 (Fed. Cir. 2020) (citation omitted). "[T]he specification ' . . . is the single best guide to the meaning of a disputed term.'" *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1340 (Fed. Cir. 2016) (citation omitted). "'[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess.' When the patentee acts as its own lexicographer, that definition governs." *Cont'l Cirs. LLC v. Intel Corp.*, 915 F.3d 788, 796 (Fed. Cir. 2019) (quoting *Phillips*, 415 F.3d at 1316). However, "'[the Court] do[es] not read limitations from the embodiments in the specification into the claims.'" *MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1310 (Fed. Cir. 2017) (citation omitted)). The "written description . . . is not a substitute for, nor can it be used to rewrite, the chosen claim language." *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004).

The 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; *Cont'l Cirs.*, 915 F.3d at 796 (same). The prosecution history may "'demonstrat[e] how the

inventor understood the invention and whether the inventor limited the invention in the course of prosecution . . . ." *SpeedTrack, Inc. v. Amazon.com*, 998 F.3d 1373, 1377 (Fed. Cir. 2021) (quoting *Phillips*, 415 F.3d at 1317).

The Court may "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*, 574 U.S. at 331. "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; *Phillips*, 415 F.3d at 1317 (same). Extrinsic evidence may be useful, but it is "less significant than the intrinsic record in determining the legally operative meaning of claim language." *Cont'l Cirs.*, 915 F.3d at 799 (internal quotation marks and citations omitted). However, "[p]atent documents are written for persons familiar with the relevant field . . . . Thus resolution of any ambiguity arising from the claims and specification may be aided by extrinsic evidence of usage and meaning of a term in the context of the invention." *Verve, LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1119 (Fed. Cir. 2002); *see Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 899 (2014) (explaining that patents are addressed "to those skilled in the relevant art").

II. AGREED-UPON TERMS

The parties agreed upon the construction of the following claim terms (D.I. 237 at 1-2):

A. The '849 Patent

Claim No.	Claim Term	Agreed-Upon Construction
1, 2, 3, 13, 14, 15, 16	object(s)	data structure(s)
1, 2, 3, 13, 14, 15, 16	advertising object(s)	objects that (1) contain display data to be presented at screen partitions and (2) whose subject matter is selected to concern advertising

Claim No.	Claim Term	Agreed-Upon Construction
1, 4, 7, 8, 13, 14, 17, 20, 21	application(s)	information events composed of a sequence of one or more pages opened at a screen
3, 4, 5, 6, 7, 8, 16, 17, 18, 19, 20, 21	characterization(s)	targeting criteria for users as defined by interaction history with the service and/or such other information as user demographics and locale
1, 2, 8, 9, 12, 13, 14, 15, 21, 25	computer network / the network	two or more interconnected computers
1	structuring advertising in a manner compatible to that of the applications so that it may be presented	formatting advertising for potential use with a plurality of applications
13, 14	structuring the advertising objects in a manner compatible to that of the applications so that it may be presented	formatting the advertising objects for potential use with a plurality of applications
1, 13	structuring applications so that they may be presented … at a first portion of one or more screens of display	formatting applications so that they may be presented . . . at a first area of one or more screens of display
14	structuring applications so that a user requested application may be presented, through the network, at a first portion of one or more screens of display	formatting applications so that a user requested application may be presented, through the network, at a first area of one or more screens of display
1, 13, 14	at a second portion of one or more screens of display concurrently with applications	at a second area of one or more screens of display concurrently with applications

B. The '861 Patent

Claim No.	Claim Term	Agreed-Upon Construction
10	communication link	Plain and ordinary meaning

C. The '960 Patent

Claim No.	Claim Term	Agreed-Upon Construction
23	means for storing values associated with each of a plurality of vulnerabilities	**Function**: storing values associated with each of a plurality of vulnerabilities

Claim No.	Claim Term	Agreed-Upon Construction
		Structure: a memory, storage device and/or database, as described in 1:66-2:1, 4:7-12, 4:14-27, 4:42-57, 4:58-6:26, 6:48-53, 7:29-30, 8:61-9:4, 9:24-27, 9:37-40, 9:43-48, 10:25-31, 12:23-29, 13:21-24, and/or FIGS. 1, 2, 3, 5 and/or 6 and structural equivalents thereof.
23	means for outputting the adjusted risk indicator	**Function**: outputting the adjusted risk indicator **Structure**: an output device such as a display, a printer, or speakers configured according to 2:34-52, 4:5-12, 4:32-37, 10:61-11:12, 14:13-58 and/or FIGS. 1, 2, 4, 5 and/or 6 and structural equivalents thereof.

D. The '968 Patent

Claim No.	Claim Term	Agreed-Upon Construction
16	means for receiving a plurality of application session setup requests from a subscriber by the communication network	**Function**: receiving a plurality of application session setup requests from a subscriber by the communication network **Structure**: session controller SC 241 or SC 341 and structural equivalents thereof.

The Court will adopt these agreed-upon constructions.[1]

[1] After the parties filed their Second Amended Joint Claim Construction Brief (D.I. 237), the parties filed an Amended Joint Claim Construction Chart. D.I. 299, Ex. A. The Court also adopts the parties' agreed-upon constructions in the Amended Joint Claim Construction Chart that were not included in their Second Amended Joint Claim Construction Brief.

III. DISPUTED TERMS

A. "selectively storing advertising objects at a store established at the reception system"

Disputed Term	Plaintiff IBM's Construction	Defendants Rakuten's Construction	The Court's Construction
selectively storing advertising objects at a store established at the reception system (the '849 patent, claims 1, 13, 14)	storing advertising objects according to a predetermined storage criterion at a store established at the reception system	retrieving (i.e., prefetching) advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications	retrieving (i.e., pre-fetching) advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications

Three courts have previously construed this exact claim term and their constructions are nearly identical. *See Int'l Bus. Machs. Corp. v. Priceline Grp. Inc.*, C.A. No. 15-137-LPS, 2016 WL 6405824, at *9-10 (D. Del. Oct. 28, 2016) ("Priceline Opinion"); *Int'l Bus. Machs. Corp. v. Groupon, Inc.*, C.A. No. 16-122-LPS, 2017 WL 3310688, at *4-5 (D. Del. Aug. 3, 2017) ("Groupon Opinion"); *Chewy, Inc. v. Int'l Bus. Machs. Corp.*, 571 F. Supp. 3d 133, 141-43 (S.D.N.Y 2021) ("Chewy Opinion"). All three courts agreed that the advertising objects must be pre-fetched. *See id.* In *Priceline* and *Groupon*, the court construed this claim term to mean "pre-fetching advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications." *See* Priceline Opinion at *9-10; Groupon Opinion at *4-5. In *Chewy*, the court construed the term to mean "retrieving advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications." Chewy Opinion at 143. The *Chewy* court simply replaced the word "pre-fetched" with "retrieving" because

> juror[s] may not be familiar with using the term "fetch" or, relatedly, "pre-fetch," to describe retrieving objects in this context. More understandable is the word

> "retrieving," which – in combination with the language from Chewy's construction stating that the storing occurs in "anticipation of display concurrently with the applications" – appropriately captures the meaning of the word "pre-fetching" but in language more accessible to a jury.

Id. "IBM has not pointed to any intrinsic evidence not considered by the [other district courts] in the [prior] action[s], nor does it present any persuasive arguments for its proposal." *See* Groupon Opinion at *4.

Accordingly, the Court construes "selectively storing advertising objects at a store established at the reception system" to mean "retrieving (i.e., pre-fetching) advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications."

B. "structuring advertising so that it may be selectively supplied to and retrieved at the reception systems for presentation"; "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" (collectively, the "structuring advertising" terms)

Disputed Term	Plaintiff IBM's Construction	Defendants Rakuten's Construction	The Court's Construction
structuring advertising so that it may be selectively supplied to and retrieved at the reception systems for presentation (the '849 patent, claim 8)	formatting advertising so that it may be selectively supplied to and retrieved at the reception systems for presentation	formatting advertising so that it may be selectively supplied to and retrieved (i.e., prefetched) at the reception systems for presentation	formatting advertising so that it may be selectively supplied to and retrieved (i.e., pre-fetched) at the reception systems for presentation
structuring advertising separately from the applications so that the advertising may be selectively supplied, through	formatting advertising separately from the applications so that the advertising may be selectively supplied, through the network, to and retrieved at the	formatting advertising separately from the applications so that the advertising may be selectively supplied, through the network, to and retrieved (i.e.,	formatting advertising separately from the applications so that the advertising may be selectively supplied, through the network, to and

Disputed Term	Plaintiff IBM's Construction	Defendants Rakuten's Construction	The Court's Construction
the network, to and retrieved at the reception systems for presentation (the '849 patent, claim 21)	reception systems for presentation	prefetched) at the reception systems for presentation	retrieved (i.e., pre-fetched) at the reception systems for presentation

The parties dispute whether the "structuring advertising" terms require the advertising to be pre-fetched. D.I. 237 at 18-23.

The courts in *Priceline* and *Chewy* found that the '849 patent "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." Priceline Opinion at *10 (citations omitted); *see also* Chewy Opinion at 141-42 ("the patent method was intended to speed up the display of advertisements – an important advantage in the days of dial-up connections – by 'eliminat[ing] from the new page response time the time it takes to retrieve an advertising object from the host system based on a user's characteristics. This is accomplished by using the ... pre-fetching mechanism,' whereby the user's system downloads and stores the advertising in advance, before it is needed for viewing — that is, it pre-fetches the advertising.") (quoting '849 patent at 34:21-44). The Court agrees with the Priceline and Chewy Opinions and finds that the '849 patent requires retrieving advertising to mean pre-fetching the advertising. The specification states, "in accordance with the method [of the '849 patent], 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." '849 patent at 3:16-21.

IBM argues that "[d]ependent claims 9 and 22 confirm that 'retrieved' does not mean 'prefetched' because they—unlike independent claims 8 and 21—require that advertising be 'prefetched.'" D.I. 237 at 18. Dependent claim 9 of the '849 patent recites:

> The method of claim 8 wherein supplying advertising data to the reception system includes pre-fetching advertising data from the network when the store of advertising data falls below a predetermined level.

'849 patent, claim 9.

Dependent claim 22 of the '849 patent recites:

> The method of claim 21 wherein supplying advertising data to the reception system includes pre-fetching advertising data from the network when the store of advertising data falls below a predetermined level.

'849 patent, claim 22.

The court in *Chewy* previously rejected a similar argument with respect to the "selectively storing advertising objects at a store established at the reception system" term. The Court held:

> IBM incorrectly assumes that mention of "pre-fetching" in [the] dependent claims [] is to express a new limitation. However, when read in context, it is clear that each claim is describing the use of "pre-fetching" under the specific circumstances discussed in those claims. For example, claim 22 discusses pre-fetching "when the store of advertising data falls below a predetermined level." Thus, the use of the term "prefetching" in those terms does not demonstrate that the more general concept of prefetching cannot also be encompassed by other claim terms, such as "selectively storing." Indeed, as the Federal Circuit has noted, "[i]t is not unusual that separate claims may define the invention using different terminology, especially where (as here) independent claims are involved." *Hormone Research Found. v. Genentech, Inc.*, 904 F.2d 1558, 1567 n.15 (Fed. Cir. 1990).

Chewy Opinion at 142-43.

The Court agrees with the court's reasoning in *Chewy* and finds the same reasoning applies for the "structuring advertising" terms.

Accordingly, the Court construes "structuring advertising so that it may be selectively supplied to and retrieved at the reception systems for presentation" to mean "formatting advertising

so that it may be selectively supplied to and retrieved (i.e., pre-fetched) at the reception systems for presentation" and "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 mean "formatting advertising separately from the applications so that the advertising may be selectively supplied, through the network, to and retrieved (i.e., pre-fetched) at the reception systems for presentation."

C. "extranet"; "extranet subscribers"

Disputed Term	Plaintiff IBM's Construction	Defendants Rakuten's Construction	The Court's Construction
extranet ('861 patent, claims 1-13)	a private internet that allows communications and application sharing between a plurality of designated, non-related organizations[2]	generally closed networks that allow communications between designated parties	extranets are private internets that allow communications and application sharing between designated, non-related organizations. Extranets are generally closed networks that allow communication between designated parties.
extranet subscribers ('861 patent, claim 10)	entities with access to the extranet that are not related to each other	plain and ordinary meaning	plain and ordinary meaning

[2] IBM provides two alternative constructions in its brief: (1) a generally closed private internet that allows communications and application sharing between a plurality of designated, non-related organizations (D.I. 237 at 24) and (2) a private internet that allows communications and application sharing between a plurality of different organizations (*id.* at 31).

The parties agree that an "extranet" "allows communications between designated parties" and that it is a "generally closed network," but dispute whether extranet must be between non-related organizations. D.I. 237 at 23-25, 27.

The Court must determine whether the patentee acted as his or her own lexicographer here. There are times when "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 (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)). The standard for finding lexicography is "exacting." *GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014).

Here, the patentee has done just that. The specification discloses:

> Other networks, often referred to as "extranets" or private internets allow communications and application sharing between designated, non-related organizations. Extranets *are* generally closed networks that allow communications between designated parties.

'861 patent at 1:30-32 (emphasis added). The specification uses the word "are" after the disputed term "extranets," which may "signify that a patentee is serving as its own lexicographer." *Cf. Abbott Lab'ys v. Andrx Pharms., Inc.*, 473 F.3d 1196, 1210 (Fed. Cir. 2007) ("The word 'is' may signify that a patentee is serving as its own lexicographer."). This sentence is clearly lexicography and, as such, the patentee's lexicography governs. *Phillips*, 415 F.3d at 1316. IBM's proposed construction improperly narrows the claim term to only "non-related organizations." The specification states, "[i]t is . . . desirable to provide an extranet architecture coupled to a wide diversity of applications that may be shared by non-related organizations while eliminating the need for any one organization to maintain the available applications." '861 patent at 2:14-16. The specification states that this outcome is "desirable," not required, and that it "*may be* shared by

non-related organizations." *Id.* (emphasis added). Nothing in the intrinsic record suggests that the extranet architecture *requires* applications to be shared by non-related organizations.

During the *Markman* hearing, the parties agreed to the Court adding the following sentence to the Court's construction of extranet, "extranets are private internets that allow communications and application sharing between designated, non-related organizations." Tr. at 50:22-51:4, 53:10-15. Accordingly, the Court construes "extranet" to mean "extranets are private internets that allow communications and application sharing between designated, non-related organizations. Extranets are generally closed networks that allow communication between designated parties."

As to the term "extranet subscriber," the Court agrees with Rakuten that it need not construe this term because "a lay juror will understand what a 'subscriber' is and the term 'extranet' is being separately construed." D.I. 237 at 30. Thus, the Court construes "extranet subscribers" to have its plain and ordinary meaning, which is the default in claim construction. *Phillips*, 415 F.3d at 1316.

D. "workgroup application"; "transaction application"; "transport application"; "workflow software application(s)"; "transaction software application(s)" (collectively, the "application terms")

Disputed Term	Plaintiff IBM's Construction	Defendants Rakuten's Construction	The Court's Construction
workgroup application ('861 patent, claim 6)	Indefinite	Plain and ordinary meaning, i.e., an application for collaborating in a workgroup	Plain and ordinary meaning, i.e., an application for collaborating in a workgroup
transaction application ('861 patent, claim 6)	Indefinite	Plain and ordinary meaning, i.e., an application for entering or sending transactions	Plain and ordinary meaning, i.e., an application for entering or sending transactions
transport application	Indefinite	Plain and ordinary meaning, i.e., an	Plain and ordinary meaning, i.e., an

Disputed Term	Plaintiff IBM's Construction	Defendants Rakuten's Construction	The Court's Construction
('861 patent, claim 6)		application relating to data transport	application relating to data transport
workflow software application(s) ('861 patent, claim 10)	Indefinite	Plain and ordinary meaning, i.e., an application for managing workflows	Plain and ordinary meaning, i.e., an application for managing workflows
transaction software application(s) ('861 patent, claim 10)	Indefinite	Plain and ordinary meaning, i.e., an application for entering or sending transactions	Plain and ordinary meaning, i.e., an application for entering or sending transactions

The parties dispute whether the application terms are indefinite. IBM argues that the application terms are indefinite because "the '861 patent provides little guidance or description of what these applications are or do." D.I. 237 at 36. Rakuten disagrees and contends the application terms would be readily understood by a person of ordinary skill in the art ("POSA"). *Id.* at 37.

Section 112 of the Patent Act requires that the claims of a patent "particularly point[] out and distinctly claim[] the subject matter which the inventor . . . regards as the invention." 35 U.S.C. § 112(b). The "primary purpose of the definiteness requirement" that § 112(b) contains "is to ensure that the claims are written in such a way that they give notice to the public of the extent of the legal protection afforded by the patent, so that interested members of the public, *e.g.*, competitors of the patent owner, can determine whether or not they infringe." *All Dental Prodx, LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 779-80 (Fed. Cir. 2002) (citation omitted).

"[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 572 U.S. at 901. While a "'potential

infringer'" need not "'be able to determine *ex ante* if a particular act infringes the claims,'" the patentee must "apprise the public 'of what is still open to them[]'" such that "a person of ordinary skill in the art could determine whether or not an accused product or method infringes the claim." *Niazi Licensing Corp. v. St. Jude Med. S.C., Inc.*, 30 F.4th 1339, 1346-47 (Fed. Cir. 2022) (citations omitted).

Like claim construction, definiteness is a question of law, but the Court must sometimes render factual findings based on extrinsic evidence to resolve the ultimate issue of definiteness. *See Sonix Tech. Co. v. Publications Int'l, Ltd.*, 844 F.3d 1370, 1376 (Fed. Cir. 2017). The challenger must prove indefiniteness by clear and convincing evidence. *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1365 (Fed. Cir. 2017).

The application terms, when read in light of the specification and the prosecution history, informs with reasonable certainty, those skilled in the art, about the scope of the invention. The specification of the '861 patent states that the various applications depicted in Figure 2 "are commercially available products which may be used in the present invention." '861 patent at 5:49-52.

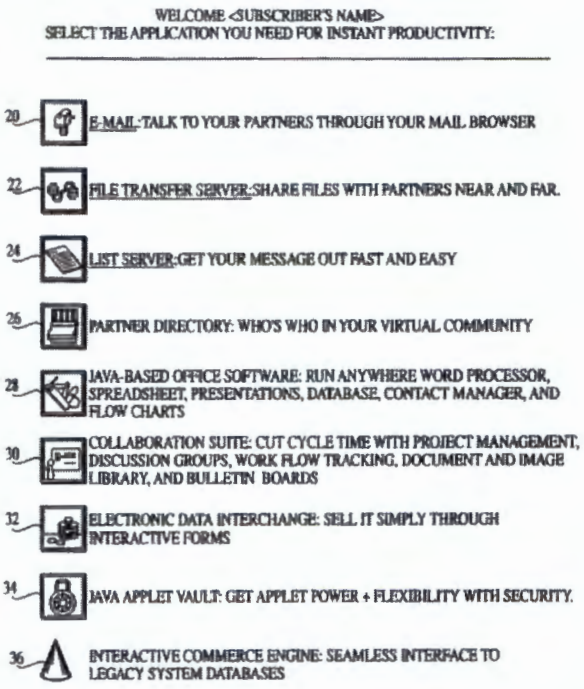


FIG. 2

The specification explains that the "collaboration suit application" includes "project management, discussion groups, work flow engine, document and image library and bulletin board applications," which are all examples of workflow and workgroup related applications. '861 patent at Fig 2, 4:14-16. The "electronic data interchange (EDI)" or transaction related applications "enable low-volume EDI users to enter transactions into a Web page or enable medium volume users to send transactions by secure EDI-MIME type e-mail." *Id.* at Fig. 2, 4:17-20. The Abstract also states, "[t]he server stores a plurality of applications including workgroup applicants, transaction applications, security applications and transport circuits and equipment." *Id.* at Abstract.

That the application terms are not indefinite is further supported by statements made by the examiner during the prosecution of the '861 patent. The examiner wrote, "'[o]fficial notice' is taken that both the concept and advantages of providing shared applications software (e.g.,

workflow software, transaction software, security software, electronic mail software, etc ..[.]) on the extranet is well known and expected in the art[.]" D.I. 149, Ex. D-2 at 24-25. The examiner also wrote:

> As such, at the heart of every extranet are well known as well as expected applications software that are specifically designed to increase the productivity of and enrich the collaboration between extranet parties. It would have been obvious to one skilled in the art at the time of the invention to store in one or more of the servers in Page's system any type of applications software, e.g. collaboration software (such as workgroup software), workflow software, transaction software, security software, electronic mail software, electronic data interchange software, office productivity software, as well as any other new applications software that is specifically designed to be shared between customers, for Page's broker to make it available over the extranet to be used by the subscribers. These applications software would empower the extranet environment and facilitate the sharing between the collaborating parties.

Id. at 25.

For the reasons stated above, IBM has not carried its burden of demonstrating, by clear and convincing evidence, that the application terms are indefinite. Accordingly, the Court construes "workgroup application" to have its "plain and ordinary meaning, i.e., an application for collaborating in a workgroup," "transaction application" to have its "plain and ordinary meaning, i.e., an application for entering or sending transactions," "transport application" to have its "plain and ordinary meaning, i.e., an application relating to data transport," "workflow software application(s)" to have its "plain and ordinary meaning, i.e., an application for managing workflows," and "transaction software application(s)" to have its "plain and ordinary meaning, i.e., an application for entering or sending transactions."

E. Means-Plus-Function Claim Terms

Disputed Term	Plaintiff IBM's Construction	Defendants Rakuten's Construction	The Court's Construction
means for scanning a network element to	Indefinite	**Function**: scanning a network element to identify vulnerabilities	**Function**: scanning a network element to

identify vulnerabilities ('960 patent, claim 23)		**Structure**: a scanner or scanning device configured according to 2:34-42, 3:18-31, 3:40-48, 9:19-27, 9:41-43, 12:47-60, 14:13-21, and/or FIGS. 1, 5 and/or 6, and structural equivalents thereof.	identify vulnerabilities **Structure**: a scanner or scanning device configured according to 2:34-42, 3:18-31, 3:40-48, 9:19-27, 9:41-43, 12:47-60, 14:13-21, and/or FIGS. 1, 5 and/or 6, and structural equivalents thereof.
means for identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning ('960 patent, claim 23)	Indefinite	**Function**: identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning **Structure**: a network monitoring system configured according to 2:34-42; 3:32-48, 4:2-12, 4:42-57, 4:62-65, 5:23-30, 7:59-8:13, 12:47-60, 14:13-21, 14:47-58 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.	**Function**: identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning **Structure**: a network monitoring system configured according to 2:34-42; 3:32-48, 4:2-12, 4:42-57, 4:62-65, 5:23-30, 7:59-8:13, 12:47-60, 14:13-21, 14:47-58 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.
means for generating a risk indicator for the network element based on the stored value associated with the at least one identified	Indefinite	**Function**: generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability	**Function**: generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability

vulnerability ('960 patent, claim 23)		**Structure**: a network monitoring system configured according to 2:4-8, 2:34-42, 3:32-48, 4:5-12, 4:42-57, 5:43-57, 7:59-8:13, 8:14-9:50, 10:19-60, 12:32-13:6, 14:22-64 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.	**Structure**: a network monitoring system configured according to 2:4-8, 2:34-42, 3:32-48, 4:5-12, 4:42-57, 5:43-57, 7:59-8:13, 8:14-9:50, 10:19-60, 12:32-13:6, 14:22-64 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.
means for adjusting the risk indicator ('960 patent, claim 23)	Indefinite	**Function**: adjusting the risk indicator **Structure**: a network monitoring system configured according to 2:34-42, 3:32-48, 4:42-65, 5:58-6:16, 7:59-8:13, 9:50-10:60, 12:20-31, 12:47-60, 13:21-26, 14:13-64 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.	**Function**: adjusting the risk indicator **Structure**: a network monitoring system configured according to 2:34-42, 3:32-48, 4:42-65, 5:58-6:16, 7:59-8:13, 9:50-10:60, 12:20-31, 12:47-60, 13:21-26, 14:13-64 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.

The crux of the parties' dispute is whether the '960 patent "disclose[s] a definite structure or algorithm for carrying out those claimed functions." D.I. 237 at 42.

The Patent Act provides that

> [a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112(f); 35 U.S.C. § 112 ¶ 6 (2006) (same).

Such "[a] means-plus-function limitation recites a function to be performed rather than definite structure or materials for performing that function." *Lockheed Martin Corp. v. Space Sys./Loral, Inc.*, 324 F.3d 1308, 1318 (Fed. Cir. 2003) (citation omitted). "The duty of a patentee to clearly link or associate structure with the claimed function is the quid pro quo for allowing the patentee to express the claim in terms of function under section 112 . . . ." *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003) (citation omitted); *see Twin Peaks Software Inc. v. IBM Corp.*, 690 F. App'x 656, 660 (Fed. Cir. 2017) (citing *Med. Instrumentation & Diagnostics*, 344 F.3d at 1211).

"Construction of a means-plus-function limitation includes two steps. 'First, the court must determine the claimed function. Second, the court must identify the corresponding structure in the written description of the patent that performs the function.'" *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012) (citation omitted); *Via Vadis, LLC v. Blizzard Ent., Inc.*, 815 F. App'x 539, 545 (Fed. Cir. 2020) (same).

> Structure disclosed in the specification qualifies as "corresponding structure" if the intrinsic evidence clearly links or associates that structure to the function recited in the claim. Even if the specification discloses corresponding structure, the disclosure must be of "adequate" corresponding structure to achieve the claimed function. . . . [I]f a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim, a means-plus-function clause is indefinite.

Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1352 (Fed. Cir. 2015) (citations omitted); *see also Rain Computing, Inc. v. Samsung Elecs. Am., Inc.*, 989 F.3d 1002, 1007 (Fed. Cir. 2021) ("'[S]tructure disclosed in the specification is corresponding structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.'" (citation omitted)). "[I]f a person of ordinary skill in the art would be unable to recognize the

structure in the specification and associate it with the corresponding function in the claim, a means-plus-function clause is indefinite." *Williamson*, 792 F.3d at 1352 (citations omitted).

The parties agree these terms are means-plus-function terms but dispute whether the '960 patent specification discloses a corresponding structure. The means-plus-function terms come from claim 23 of the '960 patent, which reads:

> A system comprising:
>
> means for storing values associated with each of a plurality of vulnerabilities;
>
> means for scanning a network element to identify vulnerabilities, the vulnerabilities representing potential points of attack;
>
> means for identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning;
>
> means for generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability; means for adjusting the risk indicator, subsequent to generating the risk indicator, based on exceptions to security rules stored in the system; and
>
> means for outputting the adjusted risk indicator.

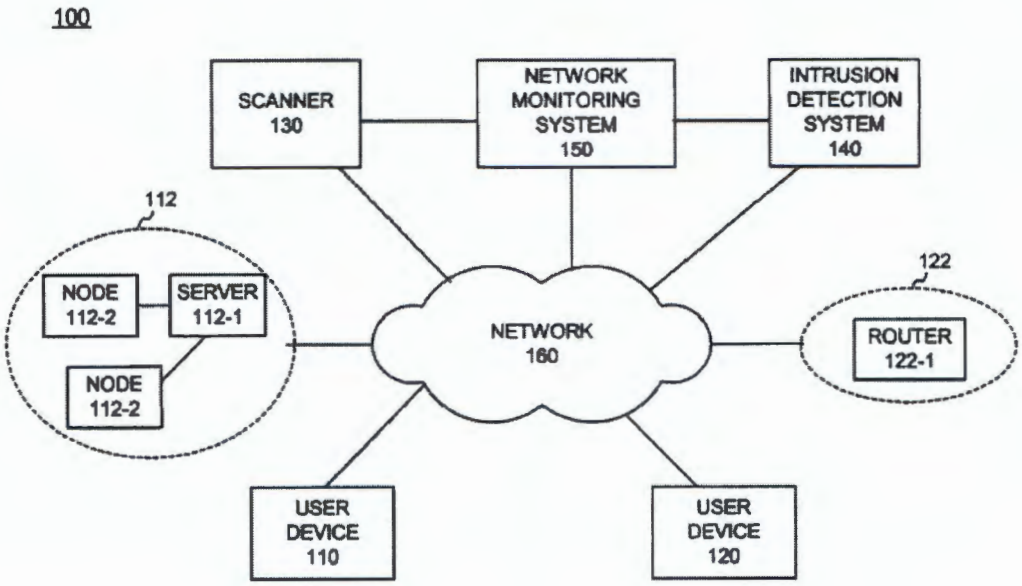
'960 patent, claim 23.

For the reasons stated below, the Court finds that IBM has failed to put forth clear and convincing evidence that the means-plus-function terms are indefinite.

a. "means for scanning a network element to identify vulnerabilities"

Rakuten proposes the structure of this claim term to be "a scanner or scanning device configured according to 2:34-42, 3:18-31, 3:40-48, 9:19-27, 9:41-43, 12:47-60, 14:13-21, and/or FIGS. 1, 5 and/or 6, and structural equivalents thereof." The crux of the dispute is whether "a scanner or scanning device" is a generic "black box[]" without any definite structure. D.I. 237 at 48-49, 50. The Court turns to the '960 patent specification to resolve this dispute.

The '960 patent includes the following figure which "is a block diagram of an exemplary system 100" and includes a "scanner 130":



'960 patent at Fig. 1, 2:34-38.

The "scanner 130" "may include one or more scanners used to detect anomalies in network devices" or "may include a device that scans a server for open ports that may be infiltrated by a hacker." *Id.* at 3:18-21. The "scanner 130" may send data to the "network monitoring system 150" to "facilitate the identification of potential vulnerabilities in system 100[.]" *Id.* at 3:40-43. Thus, a POSA reading the specification of the '960 patent would understand that the scanner or scanning device, such as scanner 130, is a "network scanner." *See also* D.I. 238, Ex. 40 ¶ 76.

Rakuten's expert[3] also opined that the '960 patent's disclosure of a "scanner" or "scanning device" "is a well-known term of art which describes a well-known class of applications and devices for identifying vulnerabilities on a network at the time of the invention." *Id.* The Federal

[3] IBM did not provide or attach any expert declarations to its claim construction brief to support its arguments. *See generally* D.I. 237.

Circuit has held such identification of distinct or discrete classes of structures was sufficient. *See, e.g.*, *Vistan Corp. v. Fadei USA, Inc.*, 547 F. App'x 986, 990, 992 (Fed. Cir. 2013) (holding "'mechanical linear actuator' is sufficiently definite structure for the purpose of section 112" because "a person of ordinary skill in the art would understand mechanical linear actuators to be a distinct and identifiable class of actuators"); *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1322 (Fed. Cir. 2004) ("Although the expression 'PWM circuit' does not reference a specific circuit structure, persons of skill in the art would understand that 'PWM circuit' references a discrete class of circuit structures that perform known functions. That the disputed term is not limited to a single structure does not disqualify it as a corresponding structure, as long as the class of structures is identifiable by a person of ordinary skill in the art.").[4] In fact, Rakuten's expert identified two common network scanners that were used at the time of the '960 patent: (1) "Nmap" and (2) "Nessus." D.I. 238, Ex. 40 ¶ 79.

Accordingly, the Court concludes that a "scanner" or "scanning device" provides "sufficient description of structure that 'one skilled in the art will know and understand what structure corresponds' to the claim limitations" and IBM has failed to show, by clear and convincing evidence, that this means-plus-function term is indefinite. *Vistan*, 547 F. App'x at 989.

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[4] IBM argues that the "supposed existence in the art of a 'class' of structures for scanning . . . only highlights the patent's deficiencies in failing to identify the specifically claimed structures ***in the specification***." D.I. 237 at 49 n.25 (emphases in original). IBM cites to the Federal Circuit cases *Synchronoss* and *Fiber* for the proposition that the specification must adequately disclose corresponding structure and "[e]xpert testimony cannot create structure where none is adequately disclosed in the specification." *Fiber, LLC v. Ciena Corp.*, 792 F. App'x 789, 796 (Fed. Cir. 2019) (citation omitted); *Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1367 (Fed. Cir. 2021). That is not the case here. As explained above, the Court finds that the means-plus-function claim term "correspond[s] to 'adequate' structure in the specification" and Rakuten is not relying on its expert to "create structure where none is adequately disclosed in the specification." *Synchronoss*, 987 F.3d at 1367 (first quote); *Fiber*, 792 F. App'x at 796 (second quote).

b. "means for identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning"

Rakuten proposes the structure of this claim term to be "a network monitoring system configured according to 2:34-42; 3:32-48, 4:2-12, 4:42-57, 4:62-65, 5:23-30, 7:59-8:13, 12:47-60, 14:13-21, 14:47-58 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof." IBM argues that Rakuten points to "a network monitoring system" without identifying an algorithm that provides "a step-by-step procedure for accomplishing a given result," i.e., identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning. D.I. 237 at 49 (quoting *Alfred E. Mann Found. for Sci. Rsch. v. Cochlear Corp.*, 841 F.3d 1334, 1342 (Fed. Cir. 2016)). The Federal Circuit, however, has held that "the specification must 'disclose an algorithm for performing the claimed function'" "'in any understandable terms including as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure.'" *Intelligent Automation Design, LLC v. Zimmer Biomet CMF & Thoracic, LLC*, 799 F. App'x 847, 851 (Fed. Cir. 2020) (citations omitted). "[T]he specification need only disclose enough to 'permit one of ordinary skill in the art to ... perceive the bounds of the invention.'" *Id.* at 852 (quoting *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1340-41 (Fed. Cir. 2008)).

IBM is correct that the specification of the '960 patent fails to disclose an algorithm. D.I. 237 at 50; *see also* '960 patent at 14:53-58 ("the operation and behavior of the aspects of the invention were described without reference to the specific software code—it being understood that one of ordinary skill in the art would be able to design software and control hardware to implement the aspects based on the description herein."). But, the specification discloses enough to permit one of ordinary skill in the art to understand the bounds of the invention. For example, the "network monitoring system 150" uses the scanning results to assess vulnerabilities, such as

> open ports within a network element (e.g., ports that can be seen from outside a company's internal network and through which access can be gained by an outside device), network elements that interface with non-secured devices, network elements that have not been scanned to identify potential open ports, network elements that have no intrusion detection system, firewall, or other protection systems installed, etc.

'960 patent at 7:63-8:9.

Accordingly, a POSA would understand that the '960 patent specification discloses a "network monitoring system," such as the "network monitoring system 150," with sufficient structure to perform the claimed function of "identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning." Rakuten's expert also opined that a POSA "would understand that a 'network monitoring system' is a well-known term of art which describes a well-known class of applications and devices which identify network vulnerabilities based on the output of a network scanner at the time of the invention." D.I. 238, Ex. 40 ¶ 90. Rakuten's expert provided an example of a network monitoring system that was used at the time of the '960 patent—NagMIN. *Id.* ¶ 91.

Accordingly, because a POSA would be able to recognize the structure in the specification and associate it with the corresponding function in the claim, the means-plus-function term "means for identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning" is not indefinite.

c. "means for generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability"

Rakuten proposes the structure of this claim term to be "a network monitoring system configured according to 2:4-8, 2:34-42, 3:32-48, 4:5-12, 4:42-57, 5:43-57, 7:59-8:13, 8:14-9:50, 10:19-60, 12:32-13:6, 14:22-64 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof." Like the previous means-plus-function term, IBM argues that the specification fails to identify an

algorithm for the "network monitoring system" that provides a step-by-step procedure for accomplishing a given result, i.e., generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability. The Court finds, however, that the '960 patent specification provides sufficient structure for this recited function.

The specification discloses that the stored values may be assigned different numerical values based on various factors, such as "the likelihood that the vulnerability can be exploited," the severity of the vulnerability, "the location of the particular network element," whether a network element is on a "Do Not Scan" list, or whether there has been "changes in the configuration of the company's network." '960 patent at 8:9-9:4. "After a value has been assigned to each potential vulnerability associated with network elements in system 100, network monitoring system 150 may store this information in, for example, policy monitoring tools database 340. This information may then be used to generate a score or grade for each network element when a party requests information for this network element." *Id.* at 8:61-67.

The specification also discloses various methods to generate a risk score based on the stored values and identified vulnerabilities. "[T]he values associated with each of the identified vulnerabilities" "may be added to generate an overall score." *Id.* at 10:31-34. A grade or pass/fail determination may be generated:

> For example, in this implementation, each network element may be originally assigned a value of 100. Each identified vulnerability may then reduce the value for that network element. For example, if a network element has an open port, 0.5 may be subtracted from the 100. If the open port is a high vulnerability port, a value of 5 may be subtracted. Further, if a network element is on a Do Not Scan list, a value of 30 may be subtracted. The total score for each element may then be determined and a grade (e.g., a letter grade, such as A through for a pass/fail grade) may be generated for each network element.

Id. at 10:43-53.

In fact, Rakuten's expert opined that a POSA "would understand that the '960 patent specification discloses sufficient structure (e.g., a network monitoring system such as network monitoring system 150) for performing the claimed function, 'generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability.'" D.I. 238, Ex. 40 ¶ 100.

Accordingly, because a POSA would be able to recognize the structure in the specification and associate it with the corresponding function in the claim, the means-plus-function term "means for generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability" is not indefinite.

d. "means for adjusting the risk indicator"

Rakuten proposes the structure of this claim term to be "a network monitoring system configured according to 2:34-42, 3:32-48, 4:42-65, 5:58-6:16, 7:59-8:13, 9:50-10:60, 12:20-31, 12:47-60, 13:21-26, 14:13-64 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof." Again, IBM argues that the specification fails to identify an algorithm for the "network monitoring system" that provides a step-by-step procedure for accomplishing a given result, i.e., adjusting the risk indicator. The Court finds that the '960 patent specification provides sufficient structure for this recited function.

Claim 23 of the '960 patent recites that the "means for adjusting the risk indicator" adjusts the risk indicator "subsequent to generating the risk indicator" and "based on exceptions to security rules stored in the system." '960 patent, claim 23. The specification provides further details regarding how the score or grade may be adjusted based on business exceptions, such as authorizing a party to use a program that "is not generally approved," or technical exceptions, such

as a "meaningless or erroneous" scan. *Id.* at 9:50-10:24. The specification provides examples of how the score or grade may be adjusted based on those exceptions:

> For example, if a scan shows that a program is being run on server 112-1, such as a program that is not generally approved for server 112-1, network monitoring system 150 may determine whether an exception has been granted for that program to be run on server 112-1. If an exception has been granted, network monitoring system 150 may reduce the score associated with this network element. In addition, network monitoring system 150 may check the exception information in policy monitoring tools database 340 to determine whether any other exceptions associated with, for example, other anomalies in the type/amount of data that server 112-1 is receiving to determine whether the anomaly is covered by an exception that has been approved for that network element. The exception, therefore, may account for the anomaly. In an exemplary implementation, if an exception has been approved for a particular network element, the score for that particular network element may be reduced by some value, such as 50.
>
> As described above, another example of exception information may involve a technical exception. For example, assume that scanner 130 runs a scan on one of nodes 112-2 and the resulting scan data is meaningless or erroneous. Network monitoring system 150 may check policy monitoring tools database 340 to determine whether a business exception has been approved for node 112-2, such as information indicating that node 112-2 is using an operating system that is not compatible with scanner 130. If such an exception has been granted, network monitoring system 150 may reduce the score for node 112-2 by a predetermined amount, such as, for example, 50.

Id. at 9:56-10:18.

Accordingly, because a POSA would be able to recognize the structure in the specification and associate it with the corresponding function in the claim, the means-plus-function term "means for adjusting the risk indicator" is not indefinite.[5]

[5] IBM also argues that "Rakuten's contention that the same 'network monitoring system' [recited as a structure for three out of the four means-plus-function terms] with overlapping support performs multiple disparate function is improper." D.I. 237 at 42-43 (citing *Noah Sys.*, 675 F. 3d at 1314). But, "an algorithm can support more than one function." *Ironworks Pats. LLC v. Samsung Elecs. Co.*, 798 F. App'x 621, 628 (Fed. Cir. 2020). In *Noah*, the Federal Circuit held that if there are two functions recited, then that algorithm must "address both aspects of this functional language." *Noah Sys.*, 675 F.3d at 1314. As described above, the Court finds that the "network monitoring system" as disclosed in the '960 patent specification addresses all three

For the reasons stated above, IBM has not carried its burden of demonstrating, by clear and convincing evidence, that the four means-plus-function terms are indefinite. Accordingly, the Court adopts Rakuten's proposed construction for each means-plus function term.

F. "plurality of application sessions"

Disputed Term	Plaintiff IBM's Construction	Defendants Rakuten's Construction	The Court's Construction
plurality of application sessions (the '968 patent, claims 1, 11)[6]	two or more independent and unrelated application sessions	plain and ordinary meaning	plain and ordinary meaning, which means multiple application sessions in a communication network

The parties dispute whether Rakuten's statements in its Patent Owner Preliminary Response in *inter partes* review ("IPR") No. IPR2022-00890, which relates to the '968 patent, amount to clear and unmistakable disavowal. *See* D.I. 237 at 52-57.

Prosecution disclaimer "preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution." *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). "[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable." *Id.* at 1325-26. The Federal Circuit has held that the doctrine of prosecution disclaimer equally applies in IPR proceedings. *See Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d

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functions, i.e., "identifying . . . ," "generating . . . ," and "adjusting . . . ." *See supra* Section III.E.b-d.

[6] The parties noted in their Joint Claim Construction Brief that Rakuten adopts IBM's construction for the term "means for receiving a plurality of application session setup requests from a subscriber by the communication network," which is found in claim 16 of the '968 patent. D.I. 237 at 52 n.27.

1353, 1360 (Fed. Cir. 2017) ("Extending the prosecution disclaimer doctrine to IPR proceedings will ensure that claims are not argued one way in order to maintain their patentability and in a different way against accused infringers.").

IBM argues that Rakuten repeatedly made statements in its Patent Owner Preliminary Response in IPR No. IPR2022-00890 that "plurality of application sessions" refers to two or more independent and unrelated application sessions. D.I. 237 at 52. Thus, according to IBM, Rakuten has clearly and unmistakably disclaimed a "plurality of application sessions" that are dependent or related. *Id.* at 52-54, 56. Rakuten disagrees and argues that IBM "misleadingly quotes" Rakuten's Patent Owner Preliminary Response. *Id.* at 56; *see also id.* at 54-55.

The Court finds that none of Rakuten's statements in its Patent Owner Preliminary Response (D.I. 238, Ex. 5) amount to clear and unmistakable disavowal of the "plurality of application sessions" claim term. *See Omega*, 334 F.3d at 1325-26; *Aylus*, 856 F.3d at 1360. First, in the section titled "Claim Construction and POSA Definition," Rakuten states:

> As it relates to the plain and ordinary meaning of "a plurality of application sessions in a communication network," Patentee notes the language is clear and purposeful. ***First***, *a plurality* of application sessions is required, i.e., *multiple* application sessions. ***Second***, **a** communication network is required, i.e., *one* communication network.

D.I. 238, Ex. 5 at 12 (emphases in original).

Thus, Rakuten construed "a plurality of application sessions in a communication network" to have its plain and ordinary meaning, which means "multiple application sessions in a communication network," not "two or more" application sessions or unrelated application sessions. *See id.*

Next, the Court looks at the statements Rakuten made in its Patent Owner Preliminary Response when distinguishing a prior art reference. Rakuten argued, *inter alia*, that a prior art

reference does not disclose a *plurality* of application sessions because it "describes and treats the audio and video as parts of a *single* multimedia whole." *Id.* at 18. Rakuten concluded:

> In view of [the prior art reference's] explicit discussion of creating a *single* "multi-media session" with two underlying media streams, and its explicit discussion of the two media streams being for communication of related media (e.g., related audio and video) for that *single* multi-media session, a POSA would not have understood [the prior art reference's] audio session and video session to be separate and independent application sessions. Instead, a POSA would have understood the two media streams to be related elements of a *single* multi-media session formed by [the prior art reference's] device/application. As such, a POSA would not have understood [the prior art reference's] two communication sessions to disclose a "plurality of application sessions," as the Petition proposes.

Id. at 19 (emphasis in original).

IBM argues that Rakuten was "distinguish[ing] the prior art" by "repeatedly" stating that the claims require "'independent' and 'unrelated' application sessions." D.I. 237 at 56. IBM, however, mischaracterizes Rakuten's statements. Rakuten was merely relying on the prior art reference's explanation that the two communication sessions created a *single* multi-media session. Rakuten then concluded that, because the prior art reference discloses only a single multi-media session, it cannot meet the "plurality of application sessions" limitation. Rakuten did not distinguish the prior art reference on the basis that the multi-media session was "related" and not "independent." None of these statements, or other statements in Rakuten's Patent Owner Preliminary Response, amount to clear and unmistakable disclaimer in claim scope. *See Omega*, 334 F.3d at 1325-26; *Aylus*, 856 F.3d at 1360.

For the reasons stated above, the Court will construe "plurality of application sessions" to have its plain and ordinary meaning, which means "multiple application sessions in a communication network."[7]

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[7] This construction is also consistent with the '968 patent specification. The '968 patent specification states that "sessions *can be* independent of each other," but there is no requirement

IV. CONCLUSION

The Court will adopt the parties' agreed-upon constructions and construe the disputed claim terms as described above. The Court will issue an Order consistent with this Memorandum Opinion.

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that they must be independent and unrelated. '968 patent at 1:42-44. Also, the word "unrelated" does not appear in the '968 specification. *See generally* '968 patent.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INTERNATIONAL BUSINESS MACHINES CORPORATION, Plaintiff, v. RAKUTEN, INC., and EBATES PERFORMANCE MARKETING, INC. DBA RAKUTEN REWARDS, Defendants.	Civil Action No. 21-461-GBW

ORDER

At Wilmington this 1st day of June 2023:

For the reasons set forth in the Memorandum Opinion issued this day, **IT IS HEREBY ORDERED** that the Court construes the following claim terms of U.S. Patent Nos. 7,072,849 ("the '849 patent"), 6,697,861 ("the '861 patent"), 7,962,960 ("the '960 patent"), and 8,072,968 ("the '968 patent") as follows:

Claim Term	**Court's Construction**
Disputed Constructions	
selectively storing advertising objects at a store established at the reception system (the '849 patent, claims 1, 13, 14)	retrieving (i.e., pre-fetching) advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications
structuring advertising so that it may be selectively supplied to and retrieved at the reception systems for presentation (the '849 patent, claim 8)	formatting advertising so that it may be selectively supplied to and retrieved (i.e., pre-fetched) at the reception systems for presentation

Claim Term	**Court's Construction**
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 (the '849 patent, claim 21)	formatting advertising separately from the applications so that the advertising may be selectively supplied, through the network, to and retrieved (i.e., pre-fetched) at the reception systems for presentation
extranet (the '861 patent, claims 1-13)	extranets are private internets that allow communications and application sharing between designated, non-related organizations. Extranets are generally closed networks that allow communication between designated parties.
extranet subscribers (the '861 patent, claim 10)	plain and ordinary meaning
workgroup application (the '861 patent, claim 6)	plain and ordinary meaning, i.e., an application for collaborating in a workgroup
transaction application (the '861 patent, claim 6)	plain and ordinary meaning, i.e., an application for entering or sending transactions
transport application (the '861 patent, claim 6)	plain and ordinary meaning, i.e., an application relating to data transport
workflow software application(s) (the '861 patent, claim 10)	plain and ordinary meaning, i.e., an application for managing workflows
transaction software application(s) (the '861 patent, claim 10)	plain and ordinary meaning, i.e., an application for entering or sending transactions
means for scanning a network element to identify vulnerabilities (the '960 patent, claim 23)	**Function**: scanning a network element to identify vulnerabilities **Structure**: a scanner or scanning device configured according to 2:34-42, 3:18-31,

Claim Term	Court's Construction
	3:40-48, 9:19-27, 9:41-43, 12:47-60, 14:13-21, and/or FIGS. 1, 5 and/or 6, and structural equivalents thereof.
means for identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning (the '960 patent, claim 23)	**Function**: identifying at least one of the plurality of vulnerabilities associated with the network element based on output from the means for scanning **Structure**: a network monitoring system configured according to 2:34-42; 3:32-48, 4:2-12, 4:42-57, 4:62-65, 5:23-30, 7:59-8:13, 12:47-60, 14:13-21, 14:47-58 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.
means for generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability (the '960 patent, claim 23)	**Function**: generating a risk indicator for the network element based on the stored value associated with the at least one identified vulnerability **Structure**: a network monitoring system configured according to 2:4-8, 2:34-42, 3:32-48, 4:5-12, 4:42-57, 5:43-57, 7:59-8:13, 8:14-9:50, 10:19-60, 12:32-13:6, 14:22-64 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.
means for adjusting the risk indicator (the '960 patent, claim 23)	**Function**: adjusting the risk indicator **Structure**: a network monitoring system configured according to 2:34-42, 3:32-48, 4:42-65, 5:58-6:16, 7:59-8:13, 9:50-10:60, 12:20-31, 12:47-60, 13:21-26, 14:13-64 and/or FIGS. 1, 2, 5 and/or 6, and structural equivalents thereof.
plurality of application sessions (the '968 patent, claims 1, 11)	plain and ordinary meaning, which means "multiple application sessions in a communication network"

Claim Term	Court's Construction
Agreed-Upon Constructions[8]	
object(s) (the '849 patent, claims 1, 2, 3, 13, 14, 15, 16)	data structure(s)
advertising object(s) (the '849 patent, claims 1, 2, 3, 13, 14, 15, 16)	objects that (1) contain display data to be presented at screen partitions and (2) whose subject matter is selected to concern advertising
application(s) (the '849 patent, claims 1, 4, 7, 8, 13, 14, 17, 20, 21)	information events composed of a sequence of one or more pages opened at a screen
characterization(s) (the '849 patent, claims 3, 4, 5, 6, 7, 8, 16, 17, 18, 19, 20, 21)	targeting criteria for users as defined by interaction history with the service and/or such other information as user demographics and locale
computer network / the network (the '849 patent, claims 1, 2, 8, 9, 12, 13, 14, 15, 21, 25)	two or more interconnected computers
structuring advertising in a manner compatible to that of the applications so that it may be presented (the '849 patent, claim 1)	formatting advertising for potential use with a plurality of applications
structuring the advertising objects in a manner compatible to that of the applications so that it may be presented (the '849 patent, claims 13, 14)	formatting the advertising objects for potential use with a plurality of applications

[8] After the parties filed their Second Amended Joint Claim Construction Brief (D.I. 237), the parties filed an Amended Joint Claim Construction Chart. D.I. 299, Ex. A. The Court also adopts the parties' agreed-upon constructions in the Amended Joint Claim Construction Chart that were not included in their Second Amended Joint Claim Construction Brief.

Claim Term	**Court's Construction**
structuring applications so that they may be presented … at a first portion of one or more screens of display (the '849 patent, claims 1, 13)	formatting applications so that they may be presented . . . at a first area of one or more screens of display
structuring applications so that a user requested application may be presented, through the network, at a first portion of one or more screens of display (the '849 patent, claim 14)	formatting applications so that a user requested application may be presented, through the network, at a first area of one or more screens of display
at a second portion of one or more screens of display concurrently with applications (the '849 patent, claims 1, 13, 14)	at a second area of one or more screens of display concurrently with applications
communication link (the '861 patent, claim 10)	plain and ordinary meaning
means for storing values associated with each of a plurality of vulnerabilities (the '960 patent, claim 23)	**Function**: storing values associated with each of a plurality of vulnerabilities **Structure**: a memory, storage device and/or database, as described in 1:66-2:1, 4:7-12, 4:14-27, 4:42-57, 4:58-6:26, 6:48-53, 7:29-30, 8:61-9:4, 9:24-27, 9:37-40, 9:43-48, 10:25-31, 12:23-29, 13:21-24, and/or FIGS. 1, 2, 3, 5 and/or 6 and structural equivalents thereof.
means for outputting the adjusted risk indicator (the '960 patent, claim 23)	**Function**: outputting the adjusted risk indicator **Structure**: an output device such as a display, a printer, or speakers configured according to 2:34-52, 4:5-12, 4:32-37, 10:61-11:12, 14:13-58 and/or FIGS. 1, 2, 4, 5 and/or 6

Claim Term	Court's Construction
	and structural equivalents thereof.
means for receiving a plurality of application session setup requests from a subscriber by the communication network (the '968 patent, claim 16)	**Function**: receiving a plurality of application session setup requests from a subscriber by the communication network **Structure**: session controller SC 241 or SC 341 and structural equivalents thereof.

GREGORY B. WILLIAMS
UNITED STATES DISTRICT JUDGE