UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

CIVIL ACTION NO. 18-12639-RGS

RAIN COMPUTING, INC.

v.

SAMSUNG ELECTRONICS CO., LTD.; SAMSUNG ELECTRONICS AMERICA, INC.; and SAMSUNG RESEARCH AMERICA, INC.

MEMORANDUM AND ORDER ON CLAIM CONSTRUCTION

February 12, 2020

STEARNS, D.J.

In this intellectual property dispute, plaintiff Rain Computing, Inc. (Rain) accuses defendants Samsung Electronics Co., Ltd.; Samsung Electronics America, Inc.; and Samsung Research America, Inc. (collectively Samsung) of infringing U.S. Patent No. 9,805,349 (the '349 patent). Before the court are the parties' briefs construing the disputed claim terms of the asserted patent. The court heard argument, pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), on January 30, 2020.

BACKGROUND

The '349 patent is titled "Method and System for Delivering Application Packages Based on User Demands," and lists Hsuan-Yeh

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Chang as the sole inventor.[1] The '349 patent was issued on October 31, 2017, from an application dated April 18, 2013, itself a continuation of an abandoned application filed on November 22, 2007.

The invention of the '349 patent is directed to "delivering application packages based on user demands." '349 patent, col. 1, ll. 15-16.

> Normally, the purchase of an application package means the purchase of a license which allows a user to use that application package on a single machine with an unlimited time period. However, the purchase of such a license may be very costly. Accordingly, many other types of licenses have been developed recently.
>
> Among the recently developed licenses, an on-demand license has attracted much attention. The on-demand license allows the user to pay a fee only when the licensed application package is subscribed and/or used. The user will not need to pay anything if the application package is unsubscribed and/or not in use.
>
> Currently, the on-demand license type is applicable mostly to web applications. However, running a web application, i.e., under a web browser, may be several times slower than running the application directly under an OS. Accordingly, there is a need to develop a method and a system that can more efficiently deliver application packages based on user demands.

Id. col. 1, ll. 36-55.

To effectuate its stated goal, the '349 patent envisions a service provider including a server that is connected to a wide area network or a local area network. *See id*. Figs. 1 and 2. Installed on the server, among

[1] Chang, a member of plaintiff's law firm, also prosecuted the patent.

other features, are a number of application packages, such as OpenOffice or Office 2007. *See id.* col. 2, ll. 53-57. Using a client terminal, a "user may [] visit a web store of the service provider, and subscribe the services of the service provider through the web store." *Id.* col. 4, ll. 24-26. The service provider then "issue[s] a user identification device, such as a SIM card, an IC card, a flash memory drive, a memory card, a CD-ROM, and the like, which may record subscription information of the user." *Id.* col. 4, ll.28-31.

Figure 3 is illustrative of the patented application delivery method.

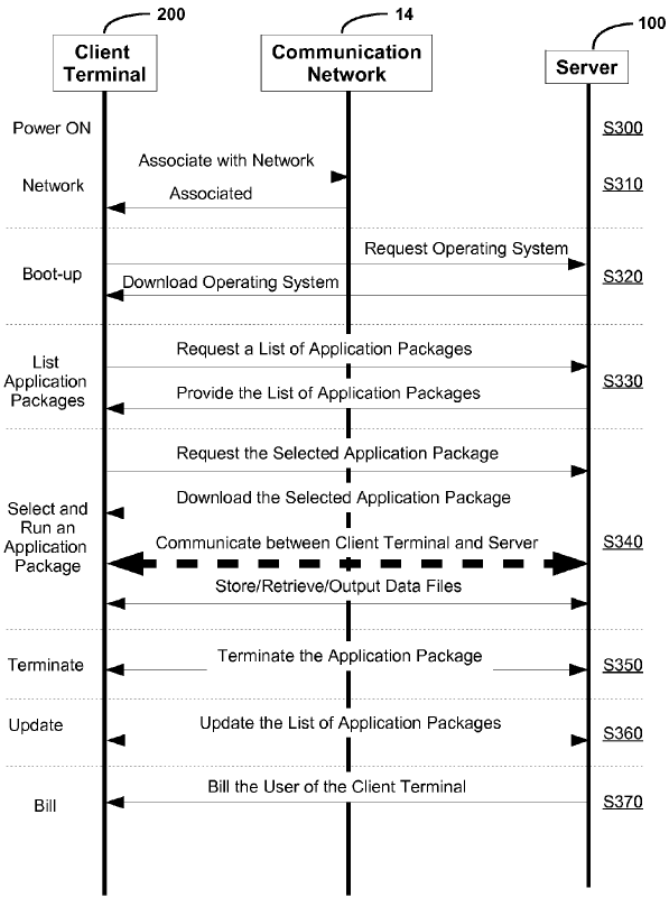

FIG. 3

After powering up the client terminal (S300), associating with a network (S310), and finding and establishing a connection with the server (S320), the "server 100 may need to authenticate the user" before the client terminal initiates a booting process. *Id.* col. 5, ll. 2-4. In the booting process, the client terminal "transfer[s] from server 100 the operating system subscribed by the user." *Id.* col. 4, l. 66 – col. 5, l. 2. "In Step [S]330, after performing the network booting process, client terminal 200 may request server 100 to send a list of application packages installed in AP server 120. Server 100 may then provide the list of application packages to client terminal 200." *Id.* col. 5, ll. 36-40. The user is licensed to use one or more of the applications on the list based on the subscription information recorded on the user identification device. "Because the subscribed application packages are installed in server 100, client terminal 200 does not require the application packages be installed in mass storage device 260 of client terminal 200." *Id.* col. 5, ll. 44-47.

> In Step S340, in order to execute or run a subscribed application package on client terminal 200, the user may select the subscribed application package from the list of application packages, and send a request for the selected application package to server 100. In one embodiment, server 100 may need to verify the user's subscription of the selected application package before activating the selected application package. Once the user's subscription is verified, client terminal 200 then begin transferring the selected application package and execute the selected application package on client terminal 200, using

> resources of the operating system resident in RAM [(random access memory)] 220 of client terminal 200.

Id. col. 5, ll. 51-63. In Steps 350 and 360, the user may "terminate the execution of the selected application package," *id.* col. 6, l. 10, or "change his subscription of services," *id.* col. 6, l. 17-18. Finally, in step 370, "the service provider may charge the user a fee for the services that are subscribed." *Id.* col. 6, ll. 51-52.

The '349 patent sets out 27 method claims, including independent claims 1, 5, and 8. Claim 1 is representative.

> 1. A method for providing software applications through a computer network based on user demands, the method comprising:
>
> accepting, through a web store, a subscription of one or more software application packages from a user;
>
> sending, to the user, a user identification module configured to control access of said one or more software application packages, and coupling the user identification module to a client terminal device of the user;
>
> a server device authenticating the user by requesting subscription information of the user from the user identification module through the computer network;
>
> upon authentication of the user, the server device providing, to the client terminal device of the user, a listing of one or more software application packages subscribed through the web store in accordance with the subscription information;

> the server device receiving, from the client terminal device and through the computer network, a selection of a first software application package from said listing of one or more software application packages;
>
> the server device transmitting the first software application package to the client terminal device through the computer network; and
>
> executing the first software application package by a processor of the client terminal device using resources of an operating system resident in a memory of the client terminal device.

The parties dispute the construction of the following terms, listed here in the order they are presented in the Joint Claim Construction Statement.

- "a user identification module configured to control access of said one or more software application packages" (all independent claims)
- "executing the [first/second] software application package by a processor of the client terminal device using resources of an operating system resident in a memory of the client terminal device" ("first software application": all independent claims; "second software application": dependent claims 3, 19, 24)
- "sending, to the user, a user identification module" (all independent claims)
- "a subscription of one or more software application packages" (all independent claims) and "a subscription of a storage unit" (independent claim 5)
- "web store" (all independent claims)
- "providing software applications through a computer network based on user demands" (preamble of all independent claims except claim 5) and "providing software applications over a through a computer network based on user demands" (preamble of independent claim 5)

- "update request" (dependent claims 2, 3, 18, 19, 23, 24)

DISCUSSION

Claim construction is an issue of law. *See Markman*, 517 U.S. at 388-389. Claim terms are generally given the ordinary and customary meaning that would be ascribed by a person of ordinary skill in the art in question at the time of the invention.[2] *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-1313 (Fed. Cir. 2005) (en banc). In ascertaining how a person of ordinary skill in the art would have understood the claim terms, the court looks to the specification of the patent, its prosecution history, and, where appropriate, extrinsic evidence such as dictionaries, treatises, or expert testimony. *Id*. at 1315-1317. Ultimately, "[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." *Id.* at 1316 (citation omitted).

[2] According to Rain, "[a] person of ordinary skill in the art [] would possess a bachelor's degree in computer science or computer engineering, or an equivalent degree, or possess equivalent academic and/or industry experience." Rain Br. (dkt # 33) at 3. Samsung's expert opines that such a person would have, additionally, "two years of experience working in distributed computing systems" or a graduate education equivalent. Chatterjee Decl. (dkt # 31-1) ¶ 34.

- *a user identification module configured to control access of said one or more software application packages*

At the threshold, the parties dispute whether this term is subject to means-plus-function analysis. Rain denies that it is, and maintains that to the extent a construction is necessary, the subphrase "a user identification module" refers to "a logical unit capable of recording subscription information and that identifies a user." For its part, Samsung contends that the term itself does not denote structure, and that because the specification fails to disclose a corresponding algorithm, the term is indefinite. In the alternative, Samsung argues that the function of the term is "to control access to one or more server-based software application packages to which the user has a subscription," and that the corresponding structure is "a hardware device."

Under 35 U.S.C. § 112, para. 6,

> [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.

Section 112 permits purely functional claiming on the condition that the scope of such claim language is "restrict[ed] . . . to the structure disclosed in the specification and equivalents thereof." *Greenberg v. Ethicon Endo-*

Surgery, Inc., 91 F.3d 1580, 1582 (Fed. Cir. 1996). In identifying means-plus-function terms, the absence of the signal phrase "means," as is the case here, creates a rebuttable presumption that Section 112, para. 6 does not apply. *Advanced Ground Info. Sys., Inc. v. Life360, Inc.*, 830 F.3d 1341, 1347 (Fed. Cir. 2016), citing *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015).

> The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure. *Greenberg* [*v. Ethicon Endo-Surgery, Inc.*], 91 F.3d [1580,] 1583 [(Fed. Cir. 1996)]. When a claim term lacks the word "means," the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to "recite sufficiently definite structure" or else recites "function without reciting sufficient structure for performing that function." *Watts* [*v. SL Systems, Inc.*], 232 F.3d [877,] 880 [(Fed. Cir. 2000)].

Williamson, 792 F.3d at 1349 (Fed. Cir. 2015).[3]

The term "module" is not *terra incognita*. "'Module' is a well-known nonce word that can operate as a substitute for 'means' in the context of § 112, para. 6." *Id.* at 1350. In *Williamson*, the Court held that a claimed "distributed learning control module" did not recite sufficient structure because "the word 'module' . . . sets forth the same black box recitation of

[3] In *Williamson*, the Federal Circuit overruled a line of cases characterizing as "strong" the presumption that a limitation without the phrase "means" does not fall under Section 112. *Id.*

structure for providing the same specified function as if the term 'means' had been used." *Id.* at 1350. The "distributed learning control" prefix also did not contribute discernible structure to the term – "[a]lthough the 'distributed learning control module' is described in a certain level of detail in the written description, the written description fails to impart any structural significance to the term." *Id.* at 1351; *see also Grecia v. Samsung Elecs. Am., Inc.*, 780 F. App'x 912, 914-916 (Fed. Cir. 2019) ("customization module" subject to Section 112, para. 6); *Synchronoss Techs., Inc. v. Dropbox Inc.*, 2017 WL 6059302, at *6-*8 (N.D. Cal. Dec. 7, 2017) ("user identifier module" subject to Section 112, para. 6).

Here too, "module" is a doppelganger for "means." In Rain's own words, "[m]odule has a plain meaning of *a component unit that serves a function*, in the context of digital electronics, a logical function, thus a logical unit." Rain Br. (dkt # 33) at 6 (emphasis added). Rain's expansive suggestion that a "module" in the context of the '349 patent may be "(1) software, (2) hardware, and (3) either/both," Rain Br. at 6 n.3, confirms that the word "sets forth [a] black box recitation of structure." Like the prefix in *Williamson*, the modifier "user identification" supplies no additional structure. The term "user identification module" does not designate any structure – indeed, the term does not appear at all in the specification. As

reflected in Rain's proposed construction, the "user identification" prefix simply states the objective of the "module," namely, to "identif[y] a user."[4]

Having determined that the phrase "user identification module" triggers Section 112, para. 6, following *Williamson*, the proper claim limitation is "a user identification module configured to control access of said one or more software application packages." *See Williamson*, 792 F.3d at 1350 ("This passage, as lengthy as it is, is nonetheless in a format consistent with traditional means-plus-function claim limitations."). Construction of means-plus-function claim terms proceeds in two steps. "First, we must identify the claimed function, staying true to the claim language and the limitations expressly recited by the claims. Once the functions performed by the claimed means are identified, we must then ascertain the corresponding structures in the written description that perform those functions." *Omega*

[4] Contrary to Rain's suggestion, that "a user identification module" appears in a method rather than in an apparatus claim does not alter the conclusion that it is a means-plus-function term. *See, e.g., Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372-1374 (Fed. Cir. 2015) (holding that the phrase "compliance mechanism" – recited in the method step of "activating a compliance mechanism in response to receiving media content by a client system, said compliance mechanism coupled to said client system, said client system having a media content presentation application operable thereon and coupled to said compliance mechanism" – is a means-plus-function limitation).

Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1321 (Fed. Cir. 2003) (citations omitted).

The function of the "user identification module" is self-evident in the claim language – "to control access of said one or more software application packages." "Said one or more software application packages" finds its antecedent in the prior step in the method – "accepting, through a web store, a subscription of one or more software application packages from a user." Thus, the function of a "user identification module" is "to control access to one or more software application packages to which the user has a subscription."[5]

According to the claimed methods, access to the application package(s) is controlled by requesting a user's subscription information from the "user identification module." *See* '349 patent, Claim 1 ("a server device authenticating the user by requesting subscription information of the user from the user identification module through the computer network,"); Claim

[5] Samsung proposes to qualify the "software application packages" as "server-based." That a server transmits a software application package to a user's client terminal is a requirement of another claim limitation, *see* '349 patent claim 1 ("the server device transmitting the first software application package to the client terminal device through the computer network"), but is not inherent in this limitation.

5 (same); and Claim 8 (same). The only source of subscription information disclosed in the specification is a "user identification device."

> After the user subscribes the services, the service provider may then issue a user identification device, such as a SIM card, an IC card, a flash memory drive, a memory card, a CD-ROM, and the like, which may record subscription information of the user. The user identification device may be connected with client terminal 200 via EP 250. . . . In one embodiment, the user identification device may be integrated with ROM 230 of client terminal 200. For example, the subscription information may be recorded in ROM 230 of client terminal 200, if client terminal 200 is provided to the user by the service provider.

Id. col. 4, ll. 27-40. In the detailed description, the user and the user's license(s) are authenticated by requesting and verifying subscription information from the "user identification device" (via the client terminal). *See id*. col. 5, ll. 4-6 ("server 100 may authenticate the user by requesting, for example, the subscription information from client terminal 200"); *id*. col. 5, ll. 40-44 ("According to the subscription information recorded in the user identification device, the user is licensed to use one or more application packages in the list. For those application packages not subscribed by the user, the user is not licensed to use them."). The patent discloses no other mechanism – in the form of software or an algorithm – that performs the access control function.

Because the sole access control mechanism is the request and retrieval of a user's subscription information from a "user identification device," the

court agrees with Samsung that the structure of the claimed "user identification module" is a hardware device. However, the structure is not an undifferentiated "hardware device" as suggested by Samsung. As Samsung's own expert notes, consistent with the disclosure that "a user identification device . . . record subscription information of the user," *id.* col. 4, ll. 30-31, the exemplars cited in the patent are all "computer-readable media or storage device." Chatterjee Decl. ¶ 67. Accordingly, the structure of the "user identification module" is "a hardware device capable of recording a user's subscription information."[6]

[6] Samsung contends that because the patent does not explain how a "user identification module" is "*configured* to control access," the claim term is invalid for indefiniteness. "[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, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). Like other invalidity defenses, indefiniteness must be proven by clear and convincing evidence. *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1377 (Fed. Cir. 2015). Here, the structure of "a user identification module" is not a general computer performing a specialized function requiring a disclosure of the function's algorithm. *Cf. Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Recording and retrieving a user's subscription information is precisely the intended and ordinary function of "a hardware device capable of recording a user's subscription information."

- *executing the [first/second] software application package by a processor of the client terminal device using resources of an operating system resident in the memory of the client device*

For this term, Samsung proposes the construction of "executing, with local processing and operating system resources, the [first/second] software application package without installing it on the client terminal device." Rain objects to the "without installing it on the client terminal device" aspect of Samsung's proposal, and otherwise contends that that term should be given its plain and ordinary meaning.

While the claim language makes no reference to installation, the court agrees with Samsung that the "executing" step proceeds without installing the software application on the user's client terminal.[7]

> Although the construction of a claimed term is usually controlled by its ordinary meaning, we will adopt an alternative meaning "if the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention.

[7] Installation of software, in the words of Rain's counsel at the *Markman* hearing, refers to the software application residing "in what is called 'non-volatile memory,' something [that] is a little bit more long term than random access memory." This is consistent with the patent's use of the term. *See* '349 patent, col. 5, ll. 44-60 (equating non-installation on the user's client terminal with not using any capacity of the client terminal's mass storage device).

Edwards Lifesciences LLC v. Cook Inc., 582 F.3d 1322, 1329 (Fed. Cir. 2009), quoting *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366-1367 (Fed. Cir. 2002). We carefully survey the intrinsic evidence. First, the '349 patent sets out to improve upon the traditional method of software delivery, where "the user . . . purchase[s] a special application package . . . and install[s] the purchased special application in the [user's] data processor before use." '349 patent, col. 1, ll. 32-35. Part and parcel of the traditional method is "the purchase of a license which allows a user to use that application package on a single machine with an unlimited time period. However, the purchase of such a license may be very costly." *Id.* col. 1, ll. 38-40.

The solution offered by the patent is a species of an on-demand license, where "the user [pays] a fee only when the licensed application package is subscribed and/or used. The user will not need to pay anything if the application package is unsubscribed and/or not in use." *Id.* col. 1, ll. 45-48. In contrast to the traditional method, the patent emphasizes that its claimed invention operates by installing the software applications *on the server*. *See id.* Abstract and Summary ("executing in the client terminal a subscribed application package *installed in the server* using resources of the operating system resident in the client terminal.") (emphasis added); Summary ("the

application packages being installed in the server"); col. 3, ll. 57-60 ("The service provider provides licenses for a client terminal 200 to use the operating systems installed in OS server 110 and the application packages installed in AP server 120.").

The user indicates a demand for a particular software package through a subscription. *See id*. col. 6, ll. 39-43 ("When the user demands an application package, the user may simply subscribe it from the service provider. On the other hand, when the user no longer demands a certain application package, the user may simply unsubscribe it."). To use a subscribed software application, "the user may select the subscribed application package from the list of application packages, and send a request for the selected application package to server 100." *Id*. col. 5, ll. 52-55. "Once the user's subscription is verified, client terminal 200 then begin[s] transferring the selected application package and execute[s] the selected application package on client terminal 200, using resources of the operating system resident in RAM 220 of client terminal 200." *Id*. col. 5, ll. 58-63. "[W]hen the user is to terminate the execution of the selected application package, client terminal 200 may inform server 100 that the selected application package is to be terminated. Client terminal 200 may then

release the running application package from RAM 220 of client terminal 200." *Id.* col. 6, ll. 10-13.

As is clear from the above description, a software application is transferred from a server to a user terminal's RAM for execution, and released from the client terminal's RAM upon the termination of execution. Nowhere in the specification does the patent indicate that a software package may be installed on any non-volatile memory of the user's client terminal for execution.[8] Indeed, a persistent installation is contrary to the invention's

[8] Rain asserts that the patent discloses the installation of the software application on the user's client terminal because the specification describes saving dynamic data to non-volatile memory for hibernation.

> If the user wants to power off client terminal 200 to save energy, but does not want to spend time on the network booting process when powering on client terminal 200 again, dynamic data in RAM 220 of client terminal 200 may be transferred to the non-volatile memory when powering off, so as to allow client terminal 200 to enter a hibernation mode.

'349 patent, col. 5, ll. 18-27; *see also, e.g.*, claim 12 ("prior to powering off the client terminal device, hibernating the client terminal device by transferring dynamic data in the memory of the client terminal device to a non-volatile memory of the client terminal device"). Hibernation mode, as limned in the specification, is an off state where the user's client terminal powers down (and does not execute any software). When the user powers on again to resume execution of the program, the data must then be reloaded into the RAM. *See id.* col. 5, ll. 24-27 ("When the user powers on client terminal 200 again, the dynamic data stored in the non-volatile memory module may be loaded back to RAM 220."). Accordingly, the patent does not disclose that a software application may be installed in non-volatile memory during execution.

stated objective and the patent's title, *i.e.*, "*Delivering* Application Packages Based on User Demand." (emphasis added). The patent touts the benefits of non-installation on the user's client terminal.

> Because the subscribed application packages are installed in server 100, client terminal 200 does not require the application packages be installed in mass storage device 260 of client terminal 200. Accordingly, if client terminal 200 includes mass storage device 260, the user may use the entire capacity of mass storage device 260 to store user data.

Id. col. 5, ll. 44-50. Likewise, during prosecution, the patentee distinguished prior art (Kirkland) on the basis that the software applications of the on-demand media streaming system were resident on the client device, and were not "streamed" from the server. *See*, *e.g.*, Jun. 18, 2014 Amendment and Response to Office Action, dkt # 33-4 at RAIN-000180 (arguing that modifying Kirkland to include software applications in the media library "would render Kirkland's system unsatisfactory for its intended purpose, at least because Kirkland's software applications . . . are all resident on the client device 410, not in media library 435, and Kirkland does not intend to stream software applications and does not disclose that any software applications could be streamed from Kirkland's media server device (or media library 435) to Kirkland's receiving device (or client device 410).") (emphasis in original).

In light of the compelling weight of the intrinsic evidence, the court is persuaded to adopt Samsung's proposed construction of "executing, with local processing and operating system resources, the [first/second] software application package without installing it on the client terminal device."

- *sending, to the user, a user identification module*

Samsung asserts that the "sending" step necessarily occurs after the preceding "accepting, through a web store, a subscription of one or more software application packages from a user" step, while Rain argues that the steps may occur in either sequence. "Unless the steps of a method actually recite an 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 Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342-1343 (Fed. Cir. 2001). To determine whether steps of a method must be executed in the order in which they are written, "[f]irst, 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. If not,

the sequence in which such steps are written is not a requirement." *Id.* at 1370 (emphasis in original).

The court agrees with Samsung that the claim language requires that the "accepting step" occur prior to the "sending step." In the "accepting" step, a user subscribes to "one of more software packages." The "sending" step provides the user with "a user identification module configured to control access of *said* one or more software application packages." (emphasis added). "Subsequent use of the definite articles 'the' or 'said' in a claim refers back to the same term recited earlier in the claim." *Wi-Lan, Inc. v. Apple, Inc.*, 811 F.3d 455, 462 (Fed. Cir. 2016). In *Wi-Lan*, the Federal Circuit held that a step that "combine[s] *the* modulated data symbols" must occur subsequent to a step that "produce[s] modulated data symbols corresponding to an invertible randomized spreading" because "[t]he term '*the* modulated data symbols' refers back to the randomized data symbols produced by the computing means in the second claim element." *Id* (emphasis in original). So it is here. The object of the access control function – "*said* one or more software application packages" – refers back to the "one

or more software packages" that the user has subscribed in the "accepting" step.[9]

- *a subscription of one or more software application packages* & *a subscription of a storage unit remote from a client terminal device of the user*

In Samsung's view, a "subscription" is an "on-demand license . . . for a predetermined and finite period of time;" "a subscription of one or more software application packages" is "an on-demand license to one or more server-based software application packages for a predetermined and finite period of time;" and "a subscription of a storage unit remote from a client terminal device of the user" is "an on-demand license to use a remote storage unit for a predetermined and finite period of time." Rain, for its part, disputes Samsung's constructions and proposes that the terms be given their plain and ordinary meaning.

[9] Rain contends that because the specification contemplates that "the user may already have a client terminal," '349 patent col. 4, l. 11, and "the user identification device may be integrated with ROM 230 of client terminal 200," *id.* col. 4, ll. 36-37, the user may be in possession of the user identification device (as part of the client terminal) before subscribing any application packages. Having determined that the claim language was determinative of the order of the "accepting" and "sending" steps, it is unnecessary to proceed to the second step of the *Altiris* test. *See* 318 F.3d at 1370 ("*If not*, we next look to the rest of the specification to determine whether *it* directly or implicitly requires such a narrow construction.") (emphasis added).

Although a subscription is a condition-precedent to a user having a license to use a software package application, *see* '349 patent, col., 5, ll. 43-44 ("For those application packages not subscribed by the user, the user is not licensed to use them."), the court agrees with Rain that a subscription is not itself equivalent to a license. The asserted claims recite a step for "accepting, through a web store, a subscription of one or more software application packages from a user." Replacing the "a subscription" with "a license" results in a nonsensical reading of this step – in the '349 patent, the user is a recipient, and not a source, of a license to use a subscribed software application package. [10]

Nothing in the patent suggests that the word "subscription" is used in any other than its usual sense of a revocable agreement to receive or to participate in something (often in exchange for a payment). As reflected by the title of the patent and the preamble of the claims, the object of the patent is to provide software application packages "based on user demand." A subscription is the vehicle for a user's demand – "[w]hen the user demands an application package, the user may simply subscribe it from the service

[10] Claim 5 includes the parallel limitation of "accepting, through the web store, a subscription of a storage unit remote from a client terminal device of the user," which is susceptible to the same incongruence under the "license" reading.

provider. On the other hand, when the user no longer demands a certain application package, the user may simply unsubscribe it." *Id.* col. 6, ll. 39-43; *cf. id.* col. 1, ll. 36-40 (contrasting prior methods where a user paid a potentially costly fee for an unlimited single-machine license "with an unlimited time period"). Nothing in the patent restricts the user to a subscription of a predetermined or limited duration. Because the terms use common words in their common sense, the court agrees with Rain that "a subscription of one or more software application packages" and "a subscription of a storage unit remote from a client terminal device of the user" be given their plain and ordinary meaning.

- *web store*

While the parties agree that a "web store" is an e-commerce entity, they disagree on its parameters. According to Rain, in the context of the '349 patent, the plain meaning of "web store" is "an e-commerce location offering software application packages for download and that is accessed via a computer network." Samsung proposes the construction of "an e-commerce web site installed on the service provider's server."

The court agrees with Samsung that Rain's requirements – that the web store offer software application packages for download and be accessed through a computer network – are redundant of other claim limitations. *See*,

e.g., '349 patent claim 1 ("[a] method for providing software applications through a computer network," "accepting, through a web store, a subscription of one of more software application packages from a user," and "the server transmitting the first software application package to the client terminal device through the computer network"). The court also agrees with Rain that nothing in the intrinsic record requires that a "web store" (as opposed to software application packages) be "installed on the service provider's server." What remains at the heart of the dispute is whether a "web store" is an "e-commerce web site," or more broadly, an "e-commerce location."

The specification's discussion of a "web store" is barebones and does not describe any attribute other than that it accepts a user's subscription. *See id*. col. 4, ll. 23-26 ("[I]f the user already ha[s] a client terminal, the user may then visit a web store of the service provider, and subscribe the services of the service provider through the web store."). The court agrees with Samsung that the prosecution history reveals the definition of a "web store." In distinguishing a prior art reference (Cover), the patentee stated that "Cover clearly discloses that streaming application manager 116 is a software application installed in the client system 102. Cover does not disclose that streaming application 116 could constitute *a web store or an e-commerce*

web site, as would be understood by one of ordinary skill in the art." Feb. 14, 2014 Response to Office Action, dkt # 33-5 at RAIN-000289 (emphasis added). As is clear from the context, the patentee equated "a web store" with "an e-commerce web site."[11] Neither party has provided the court with extrinsic evidence, such as a dictionary definition, of how a person of ordinary skill in the art would have understood "web store" at the time of the invention. Accordingly, the court construes a "web store" to be an "e-commerce web site."

- *providing software applications through a computer network based on user demands*[12]

  The parties first dispute whether the preamble of the claims is limiting.

  > Preamble language that merely states the purpose or intended use of an invention is generally not treated as limiting the scope of the claim. However, [w]hen limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.

[11] Rain argues that a "web store" cannot be confined to a "web site" because the specification discloses that a server of the service provider may be located in a local area network as well as in a wide area network. Being familiar with intranet web sites, the court does not understand a web site to be limited to a wide area network.

[12] The parties agree that the preamble of claim 5 – "providing software applications over a through a computer network based on user demands" – should be construed identically.

Pacing Techs., LLC v. Garmin Int'l, Inc., 778 F.3d 1021, 1023-1024 (Fed. Cir. 2015) (internal quotation marks and citations omitted). Here, "a computer network" in the preamble provides the antecedent to "the computer network" in the limitation reciting "a server device authenticating the user by requesting subscription information of the user from the user identification module through the computer network" limitation.

Further, a preamble is limiting if "it states a necessary and defining aspect of the invention." *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1375 (Fed. Cir. 2008). To overcome the examiner's section 101 rejection during prosecution, the patentee relied on the recitation of a "computer network" in the preamble as evidencing that the invention utilizes a particular machine.

> For example, claim 20 recites a "computer network" in both the preamble and the body of the claim. One of ordinary skill in the art would readily understand that the claimed "computer network" includes one or more electrical and/or optical devices (e.g., electrical and/or optical cable for wired computer network or antenna for wireless computer network, switches, etc.) that performs telecommunication (e.g., the receiving and transmitting steps) with the claimed client terminal device, so as to achieve the claimed on-demand provision of software applications. Without tying to a "computer network," no software applications can possibly be provided to a client terminal device as required by claim 20. Accordingly, the method claims of this application involve and integrally use at least a particular machine, namely a computer network, so as to achieve performance of the claimed methods.

June 19, 2014 Amendment and Response to Office Action, dkt # 33-4 at RAIN-000172. In response, the examiner withdrew the section 101 objection. June 30, 2014 Advisory Action, dkt # 33-3 at RAIN-000154. Accordingly, the court agrees with Samsung that the preamble is limiting.

The parties next dispute the appropriate scope of the preamble. Samsung's construction is "providing on-demand use of server-based software applications through a computer network," while Rain relies on the plain and ordinary meaning. The court agrees with Rain that Samsung's proposed definition confuses rather than clarifies. First, the claimed methods are concerned with providing software applications based on a user's subscription, not the "on demand use" of the application. Second, characterizing the software applications as "server-based" muddies the water – although the software applications are installed on the server, as claimed, they are "transmitt[ed] . . . to the client terminal device through the computer network" for execution. Because the preamble uses common terms in their usual sense, the court agrees with Rain that it should be accorded the plain and ordinary meaning.

- *update request*

Samsung proposes to construe an "update request" as "a request to change the user's subscription," while Rain relies again on the plain and

ordinary meaning. The court agrees with Rain that it is redundant to define "update request" in terms of a user's subscription, as this is clear from the context of the claim element. *See*, *e.g.*, '349 patent claim 2 ("the server device receiving an update request from the client terminal device and updating said subscription of one or more software application packages in response the update request by removing the first software application package from said listing of one or more software application packages"). Because the term uses common words in their usual sense, the court agrees with Rain that it should be accorded the plain and ordinary meaning.

ORDER

The disputed claim terms will be construed for the jury and for all other purposes in the pending litigation in a manner consistent with the above rulings of the court.

SO ORDERED.

/s/ Richard G. Stearns
UNITED STATES DISTRICT JUDGE