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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

SYNCHRONOSS TECHNOLOGIES, INC.,
Plaintiff,
v.
DROPBOX INC., et al.,
Defendants.

Case No. [16-cv-00119-HSG](#)
Re: Dkt. No. 144

SYNCHRONOSS TECHNOLOGIES, INC.,
Plaintiff,
v.
EGNYTE, INC.,
Defendant.

Case No. [16-cv-00120-HSG](#)
Re: Dkt. No. 84

CLAIM CONSTRUCTION ORDER

Plaintiff Synchronoss Technologies, Inc. (“Synchronoss”) filed related actions against Defendants Dropbox, Inc. (“Dropbox”) and EgnYTE, Inc. (“EgnYTE”), alleging infringement of United States Patent Nos. 6,671,757 (“the ’757 Patent”); 6,757,696 (“the ’696 Patent”); and 7,587,446 (“the ’446 Patent”) (collectively, “the Asserted Patents”). *See* Dkt. No. 1 (“Compl.”).¹ The parties propose ten groupings comprising 23 claim terms for construction. *See* Dkt. No. 154-2 (“Amended Joint Claim Construction and Prehearing Statement (JCCS)”) at 2–3.² *Id.* This

¹ Unless otherwise specified, all docket references are to *Synchronoss Technologies, Inc. v. Dropbox Inc., et al.*, No. 4:16-cv-00119.
² Discrepancies exist between the parties’ briefs and the Amended JCCS in identifying claims from the Asserted Patents associated with the terms proposed for construction. Any claim references in this order reflect the Amended JCCS. The parties clarified at oral argument that the Court need not construe the term “transaction identifier module assigning a universally unique identifier to each user of transaction objects in said data store.” *See* Amended JCCS at 3; Hr’g Tr. at 71:4-25, 72:1-5.

1 order follows claim construction briefing,³ a technology tutorial, a claim construction hearing, and
2 one round of supplemental claim construction briefing.

3 **I. LEGAL STANDARD**

4 Claim construction is a question of law to be determined by the Court. *Markman v.*
5 *Westview Instruments, Inc.*, 517 U.S. 370, 384 (1996). “The purpose of claim construction is to
6 determine the meaning and scope of the patent claims asserted to be infringed.” *O2 Micro Int’l*
7 *Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (quotation omitted).

8 Generally, claim terms should be “given their ordinary and customary meaning”—i.e., “the
9 meaning that the terms would have to a person of ordinary skill in the art at the time of the
10 invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (*en banc*) (quotation
11 omitted). There are only two circumstances where a claim is not entitled to its plain and ordinary
12 meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when
13 the patentee disavows the full scope of a claim term either in the specification or during
14 prosecution.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

15 When construing claim terms, the Federal Circuit emphasizes the importance of intrinsic
16 evidence such as the language of the claims themselves, the specification, and the prosecution
17 history. *Phillips*, 415 F.3d at 1312–17. The claim language can “provide substantial guidance as
18 to the meaning of particular claim terms,” both through the context in which the claim terms are
19 used and by considering other claims in the same patent. *Id.* at 1314. The specification is likewise
20 a crucial source of information. *Id.* at 1315–17. Although it is improper to read limitations from
21 the specification into the claims, the specification is “the single best guide to the meaning of a
22 disputed term.” *Id.* at 1315 (“[T]he specification is always highly relevant to the claim
23 construction analysis. Usually, it is dispositive.” (quotation omitted)); *see also Merck & Co. v.*
24 *Teva Pharms. USA, Inc.*, 347 F.3d 1367, 1371 (Fed. Cir. 2003) (“[C]laims must be construed so as
25 to be consistent with the specification . . .”).

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27 ³ Egnyte and Dropbox advance virtually identical arguments in their respective responsive briefs.
28 *See* Dkt. No. 93, No. 4:16-cv-00120. Egnyte “amended its constructions and evidence in support
to conform completely to Dropbox’s proposed constructions and evidence.” Amended JCCS at 2.
The Court therefore refers to Dropbox’s brief on behalf of Defendants.

1 Despite the importance of intrinsic evidence, courts may also consider extrinsic evidence—
 2 technical dictionaries, learned treatises, expert and inventor testimony, and the like—to help
 3 construe the claims. *Phillips*, 415 F.3d at 1317–18. For example, dictionaries may reveal what
 4 the ordinary and customary meaning of a term would have been to a person of ordinary skill in the
 5 art at the time of the invention. *Frans Nooren Afdichtingsystemen B.V. v. Stopaq Amcorr*
 6 *Inc.*, 744 F.3d 715, 722 (Fed. Cir. 2014) (“Terms generally carry their ordinary and customary
 7 meaning in the relevant field at the relevant time, as shown by reliable sources such as
 8 dictionaries, but they always must be understood in the context of the whole document—in
 9 particular, the specification (along with the prosecution history, if pertinent).”). Expert testimony
 10 can also help “to ensure that the court’s understanding of the technical aspects of the patent is
 11 consistent with that of a person of skill in the art, or to establish that a particular term in the patent
 12 or the prior art has a particular meaning in the pertinent field.” *Phillips*, 415 F.3d at 1318.
 13 Extrinsic evidence is, however, “less significant than the intrinsic record in determining the legally
 14 operative meaning of claim language.” *Id.* at 1317 (quotation omitted).

15 **II. AGREED TERMS**

16 The parties agree on the construction of sixteen terms within twelve groups. Amended JCCS,
 17 Ex. A. In light of the parties’ agreement, the Court adopts the constructions of these terms as set
 18 forth in the following table.

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Asserted Patent	Claim Term	Agreed Construction
'757 Patent	“sync engine” / “[first / second] sync engine” / “device sync engine” [claims 1, 16, 24]	“software that transmits or receives difference information”
'757 Patent	“difference information” [claim 1]	“information that comprises only the changes to one system’s data which have occurred on that system, and instructions for implementing those changes”

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'757 Patent	“difference transaction” / “change transaction” [claim 1]	“the sending or receipt of difference information”
'757 Patent	“difference transaction generator” [claims 1, 16, 24]	“software that compares a current state of the data to a previous state of the data to generate difference information, and then places the difference information into a difference transaction”
'757 Patent	“application specific format” [claims 14, 28]	“format that is specific to a particular program or application”
'757 Patent	“universal format” [claim 14] “application independent format” [claim 28]	“format that is independent of a specific program or application”
'696 Patent	“unique transaction identifier” [claims 9, 16]	“identification value assigned to a transaction that is unique within the synchronization system”
'696 Patent	“unique identification” [claim 6]	“identification value that is unique within the synchronization system”
'696 Patent	“change transactions” [claims 9, 10]	“the sending or receipt of difference information”
'446 Patent	“difference information” [claims 1, 11]	“information that comprises only the changes to one system’s data which have occurred on that system, and instructions for implementing those changes”
'446 Patent	“device engine” [claim 11]	“software that transmits or receives difference information”

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'446 Patent	“universal data format” [claim 19]	“format that is independent of a specific program or application”
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III. DISPUTED TERMS

A. “a previous state of said data” / “copy of a previous state of said data” ('757 Patent)

Synchronoss’s Construction	Defendants’ Construction
“a previous version of the data or previous information about the data before the changes to the data occurred”	“a copy of a previous version of the data that is used in a comparison against a copy of the current version of the data to generate difference information”

The Court adopts Defendants’ construction.

The parties dispute the scope of the terms to be construed. Synchronoss argues that the terms “a previous state of said data” and “copy of a previous state of said data” can include “data *about the data* being synchronized.” Dkt. No. 144 (“Op. Br.”) at 7 (citing ’757 Patent, 12:12-14).⁴ Synchronoss’s construction consequently includes not just previous versions of the data to be copied, but also “information about the data being synchronized that would permit the device engine to determine if data has been updated and, if so, what data packages to update.” *Id.* at 8. Synchronoss primarily relies on the FusionOne Synchronization Platform Architecture Guide (v1) to support its construction. *See id.* at 7; Dkt. No. 143-5 (“the Architecture Guide”). Synchronoss characterizes the Architecture Guide as “contemporaneous architecture documentation from the original patentee” that sheds light on the specification. *See Op. Br.* at 7–8. Synchronoss relies on the Architecture Guide’s reference to hash values to argue that “a complete copy of the data” is not needed for a change comparison. *Id.* In addition, Synchronoss argues that Defendants’ use of the term “version” in their construction improperly conflates “version” with “state.” *Id.*

Defendants contend that Synchronoss’s construction is overly broad. According to Defendants, it is the comparison of two versions of a file that generates the “differences,” and not

⁴ Emphasis added unless otherwise noted.

1 other “information about the file.” Dkt. No. 150 (“Resp. Br.”) at 2. To support their construction,
 2 Defendants rely on (1) the specification; and (2) an alleged contradiction between Synchronoss’s
 3 current position in this litigation and its statements in a recent *inter partes* review (“IPR”)
 4 proceeding. *Id.* at 2–3. In addition, Defendants argue that the Architecture Guide does not
 5 address how a person of ordinary skill in the art would understand the claim terms. Specifically,
 6 Defendants stress that the guide (1) was never made publicly available; (2) post-dates the relevant
 7 priority date by 4 years; and (3) at no point references the ’757 Patent. *Id.* at 4–6.

8 The Court adopts Defendants’ construction. That construction finds better support in the
 9 intrinsic record. The specification suggests that differencing information is generated by
 10 comparing a prior version of the data against a more current version. *See* ’757 Patent, 12:18-21
 11 (“Delta module 950⁵ is a differencing engine which calculates differences in data between the
 12 output of the application object 910 and the copy of the data which is provided in an application
 13 object store (AOS) 920.”), 14:38-42 (“The device engine uses the local application object store
 14 920 to keep track of the last synchronized version of each application’s actual data, which is then
 15 used for the next data comparison by the delta module on the next sync request.”), 12:12-14
 16 (providing that the “application object store” “stores a snapshot of the previous state of the data
 17 from the application object 910 in the device engine”). The ’757 Patent does not indicate that
 18 differencing information is generated by using *other* data, beyond the previous version of that
 19 data. And the specification itself does not state that hash values are either used for comparison, or
 20 are part of the “previous state of said data.” The specification’s only reference to a “[h]ash”
 21 provides: “File items *typically* have the following additional field tags . . . Hash. . .” ’757 Patent,
 22 44:45-56. Defendants’ construction, moreover, does not improperly conflate “version” and
 23 “state,” as the specification uses these terms interchangeably. *Compare* ’757 Patent, 14:38-42
 24 (“The device engine uses the local *application object store* 920 to keep track of the last
 25 synchronized *version* of each application’s actual data, which is then used for the next data
 26 comparison by the delta module on the next sync request.”), *with* ’757 Patent, 12:12-14

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 28 ⁵ “Delta module 950,” “application object 910” and “application object store (AOS) 920”
 correspond with the “Desktop Device Engine Diagram.” *See* ’757 Patent, Figure 9A.

1 (“Application object store 920. . . stores a snapshot of the previous *state* of the data from the
2 application object 910 in the device engine.”).⁶

3 In addition, Synchronoss fails to effectively rebut Defendants’ critiques of the Architecture
4 Guide. Synchronoss does not dispute that the Architecture Guide was developed almost four years
5 after the ’757 Patent’s priority date. Rather, Synchronoss contends that it can properly rely on the
6 Architecture Guide because that document was developed “approximately the same time” as the
7 Asserted Patents. Dkt. No. 153 (“Reply”) at 1. But the authority that Synchronoss cites does not
8 support that proposition. *See Inverness Med. Switzerland GmbH v. Princeton Biomeditech Corp.*,
9 309 F.3d 1365, 1370 (Fed. Cir. 2002) (“We may look, therefore, to the dictionary definition of the
10 claim term ‘mobility’ *as of* the date the patents issued.”). In addition, Synchronoss does not
11 expressly address Defendants’ argument that the Architecture Guide does not itself reference the
12 ’757 Patent, and has never been made publicly available. *See* Resp. Br. at 5–6; *Markman*, 52 F.3d
13 at 986 (“[T]he focus in construing disputed terms in claim language is not the subjective intent of
14 the parties . . . Rather the focus is on the objective test of what one of ordinary skill in the art at the
15 time of the invention would have understood the term to mean.”). Synchronoss fails to provide
16 other evidence supporting that the Architecture Guide is in any way linked to the ’757 Patent.

17 **B. “management server” / “management dedicated network coupled device” /**
18 **“synchronization agent management server” (’757 and ’696 Patent)**

Synchronoss’s Construction	Defendants’ Construction
“software or hardware component that manages a user’s account”	“a centralized server which controls behavior and characteristics of the entire network of device engines across all users”

23 **The Court adopts Defendants’ construction.**

24 Synchronoss admits that Defendants’ construction is taken “verbatim from the ’757
25 Patent’s specification.” Op. Br. at 9. Consequently, “Synchronoss does not contend that

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27 ⁶ Synchronoss’s characterization of differencing information in an IPR proceeding casts further
28 doubt on its proposed construction here. *See* Dkt. No. 150-2 (“Oral Arg. Tr.”) 21:15-23 (“[T]he
copy is of a previous state of the data. . . it would have to retain state A and then later on maybe
come back and do a comparison with the old version to see what changed. . .”), 22:3-9.

1 Defendants’ proposed construction is incorrect, only that it is incomplete and confusing.” *Id.*
2 Specifically, Synchronoss claims that the words “entire” and “all” in Defendants’ construction
3 improperly import additional limitations into the specification. *Id.*; *see* Hr’g Tr. at 21:6-13. To
4 support its construction, Synchronoss relies on (1) functional language from the specification, *see*
5 ’757 Patent, 17:30 (“a management server that manages users’ accounts”), ’696 Patent, 16:50
6 (same); and (2) the Architecture Guide and the FusionOne Synchronization Platform Operations
7 Guide (“Operations Guide”), *see* Dkt No. 143-6. Op. Br. at 9. Defendants’ criticisms of the
8 Architecture Guide apply to both documents. *See* Resp. Br. at 7. Even considering the FusionOne
9 documents, those documents are not inconsistent with Defendants’ construction. *See* Op. Br. at 9–
10 10 (quoting portions of a guide’s description of the management server).

11 As Synchronoss acknowledges, Defendants’ construction is taken directly from the
12 specification’s definition of a “management server.” *See* ’757 Patent, 32:38-40 (“The
13 management server *is a* centralized server which controls behavior and characteristics of the entire
14 network of device engines across all users.”); *Martek Biosciences Corp. v. Nutrinova, Inc.*, 579
15 F.3d 1363, 1380 (Fed. Cir. 2009) (“When a patentee explicitly defines a claim term in the patent
16 specification, the patentee’s definition controls.”). In contrast, Synchronoss’s construction
17 describes functions that a management server *could* perform. The words “entire” and “all” are,
18 moreover, not inconsistent with the claim language relied upon by Synchronoss. *See* Hr’g Tr. at
19 24:4-12; ’757 Patent, 47:34-37 (indicating that the management server “authorizes access of
20 difference information on the data store by the first and second sync engines”). For instance,
21 claim 15 of the ’757 Patent expressly provides that the “apparatus of claim 1,” i.e. the system for
22 synchronizing data between a first and a second system, could include “a *plurality of sync engines*
23 *on a respective plurality of systems*, each of said plurality of engines being coupled to receive
24 difference information. . . .” ’757 Patent, 46:58-59, 47:56-67. More broadly, Synchronoss admits
25 that any difference between the parties’ proposed constructions is immaterial to the claim’s
26 construction. *See* Reply at 2 (“[T]he proposed constructions are effectively a difference without a
27 distinction.”).

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1 C. “[first / second] system” / “[first / second] device” / “device[s]” / “network
2 coupled device[s]”/ “network coupled apparatus[es]” (’757 Patent, ’696 Patent,
3 ’446 Patent)

Synchronoss’s Construction	Defendants’ Construction
<p>4 “a collection of elements or components 5 organized for a common purpose, and may 6 include hardware components of a 7 computer system, personal information 8 devices, hand-held computers, notebooks, 9 or any combination of hardware which may 10 include a processor and memory which is 11 adapted to receive or provide information to another device; or any software containing such information residing on a single collection of hardware or on different collections of hardware”</p>	<p>Plain and ordinary meaning –</p> <p>“computer or computing device such as a personal computer, portable computer, desktop computer, server, smart telephone, cellular telephone, standard telephone, or personal data assistant (PDA)”</p>

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13 **The Court adopts Plaintiff’s construction.**

14 Synchronoss argues that the patentee acted as a lexicographer in defining the disputed
15 terms. *See* Op. Br. at 11. Synchronoss accordingly highlights the ’757 Patent’s definition of
16 “device”:

[A] ‘device’ is defined as a collection of elements or components
organized for a common purpose, and may include hardware
components of a computer system, personal information devices,
hand-held computers, notebooks, or any combination of hardware
which may include a processor and memory which is adapted to
receive or provide information to another device; or any software
containing such information residing on a single collection of
hardware or on different collections of hardware.

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21 ’757 Patent, 5:14-23. Synchronoss emphasizes that the ’696 Patent, 4:28-36, defines device
22 identically, and that the ’446 Patent, 1:8-11, incorporates the ’757 Patent in its entirety.

23 Synchronoss argues that Defendants’ construction is “not incorrect, but incomplete to the extent
24 that it limits the definition to hardware devices.” Op. Br. at 11. Defendants do not dispute that the
25 Asserted Patents define “device” as set forth by Synchronoss. Resp. Br. at 8–9. Rather,
26 Defendants contend that Synchronoss’s construction is flawed because (1) the Asserted Patents do
27 not define any grouped terms other than “device” (i.e. “system,” “network coupled device,” or
28 “network coupled apparatus”); (2) the ’757 Patent’s discrete use of each term in this grouping

1 suggests that their meanings are distinct; and (3) stand-alone software cannot be “coupled” to the
2 internet, which favors limiting these terms’ application to hardware components or elements. *See*
3 *id.*

4 The Court adopts Synchronoss’s construction, which finds express support in the
5 specification. *See Thorner*, 669 F.3d at 1365 (holding that a claim is not entitled to its plain and
6 ordinary meaning when the patentee acts as his or her own lexicographer); *Vitronics Corp. v.*
7 *Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). To the extent that the specification does
8 not expressly define terms in this grouping apart from “device”, the parties themselves agree that
9 the grouped terms “present identical issues. . . [and] may be considered a single term” for
10 purposes of claim construction. Standing Order for Patent Cases ¶ 5. Adopting Defendants’
11 construction would, moreover, not resolve this issue: like Plaintiff, Defendants offer one
12 construction for every term in this group. Defendants’ third argument concerning stand-alone
13 software does not apply here, as the Court understands the ’757 Patent’s use of the term
14 “software” to reference software in combination with a hardware component or element. *See*
15 Resp. Br. at 8; Hr’g Tr. at 30:7-9 (“[T]o the extent the [Court] understands that language to be
16 software in combination with hardware, we think that’s . . . appropriate as a construction.”).

17 **D. “user identifier module” / “authentication module identifying a user coupled to**
18 **the synchronization system” / “user authenticator module” / “user login**
authenticator” / “user data flow controller” (’696 Patent)

Synchronoss’s Construction	Defendants’ Construction
<i>user identifier module</i> – “hardware or software that identifies a user”	The terms are subject to 35 U.S.C. § 112(6)
<i>authentication module identifying a user coupled to the synchronization system</i> – “software that verifies a user’s access to the synchronization system”	Function: <i>user identifier module</i> – “Identifying a user” ⁷
<i>user authenticator module</i> – “software that verifies the authenticity of a user”	<i>authentication module identifying a user coupled to the synchronization system</i> – “Identifying and authenticating a user coupled to the synchronization system”
<i>user authenticator module</i> – “software that verifies the authenticity of a user”	<i>user authenticator module</i> – “Authenticating users”

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⁷ *See infra* n.9.

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<p><i>user login authenticator</i> – “software that authenticates a user’s log-in”</p>	<p><i>user login authenticator</i> – “Authenticating user logins”</p>
<p><i>user data flow controller</i> – “software that controls the transmission or reception of change transactions”</p>	<p><i>user data flow controller</i> – “Controlling the flow of user data in the synchronization system”</p>
	<p>Structure: No corresponding structure is disclosed in the specification for each claimed function</p>

The Court finds that the terms are indefinite under 35 U.S.C. § 112(6).

The parties’ dispute turns on two inquiries: (1) whether these terms are means-plus-function terms under 35 U.S.C. § 112(6); and if so, (2) whether the ’696 Patent identifies sufficient structure such that the claim terms survive as definite under section 112.

To determine whether a claim invokes section 112, the Court must determine if the claim limitation is drafted in the means-plus-function format. “The use of the term ‘means’ triggers a rebuttable presumption that § 112, ¶ 6 governs the construction of the claim term.” *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1097 (Fed. Cir. 2014). There is a general presumption that the limitation does not invoke 35 U.S.C. § 112(6) where the claim language does not recite the term “means.” *Id.* This presumption is not strong, and it is rebuttable. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (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.” *Id.* “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.’” *Id.* (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)).

The parties agree that the word “means” does not appear in the claim language. Instead, Defendants argue that “module” is a well-recognized nonce word equivalent to “means.” Resp. Br. at 15. Defendants identify two functions associated with the grouped terms: identifying users and authenticating users. *Id.* at 14. Defendants contend that the various prefixes associated with

1 the term “module”—e.g. “user identifier,” “authentication,” and “user authenticator”—do not
 2 impart sufficient structure to take the claim terms outside section 112’s ambit. *Id.* at 15 (citing
 3 *Williamson*, 792 F.3d at 1351). Defendants argue that this analysis likewise applies to the non-
 4 “module” terms in this group, i.e. “user login authenticator” and “user data flow controller.” *See*
 5 *id.* at 16, 19–21.⁸

6 The Court agrees with Defendants. In *Williamson*, the Federal Circuit found that section
 7 112 applied to the claim term “distributed learning control module.” 792 F.3d at 1350. In so
 8 doing, the *Williamson* court remarked that “[m]odule is a well-known nonce word that can operate
 9 as a substitute for ‘means’ in the context of § 112, para.6.” *See id.* (affirming the district court’s
 10 finding that “‘module’ is simply a generic description for software or hardware that performs a
 11 specified function” (quotation omitted)). The *Williamson* court further opined that “[g]eneric
 12 terms such as ‘mechanism,’ ‘element,’ ‘device,’ and other nonce words that reflect nothing more
 13 than verbal constructs may be used in a claim in a manner that is tantamount to using the words
 14 ‘means’ because they typically do not connote sufficiently definite structure. . .” *Id.* (quotation
 15 omitted).

16 In concluding that section 112 likewise applies here, the Court finds persuasive
 17 Defendants’ expert, Dr. Freedman. Dr. Freedman opines that a person of ordinary skill in the art
 18 would understand these terms as reciting only authentication and/or identification functions, while
 19 “providing no structure for the purported ‘module’ that performs the function.” *See* Resp. Br. 14–
 20 16, 19; Dkt. No. 150-5 (“Freedman Decl.”) ¶¶ 39–44 (“user identifier module”), 49–53
 21 (“authentication module identifying a user coupled to the synchronization system”), 58–62 (“user
 22 authenticator module”). Dr. Freedman explains that the prefixes associated with Synchronoss’s
 23 constructions do not cure this structural void. *See id.* Dr. Freedman provides dozens of discrete
 24 ways a skilled artisan could understand hardware or software to authenticate and/or identify users,
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26 ⁸ Synchronoss correctly observes that Dropbox separated its arguments regarding the term “user
 27 data flow controller.” *See* Reply at 9 n.2. Synchronoss requests that the Court strike Defendants’
 28 proposed construction of that term under the Court’s Standing Order for Patent Cases. The Court
 declines to so do, as Defendants’ separate pagination in no way alters the parties’ arguments or
 their constructions.

1 including for instance through “captive portal/web authentication” involving user authentication or
 2 identification, identification via a “MAC” or “Internet Protocol” address, or through passwords or
 3 passphrases, PIN codes, and/or multi-factor authentication. *Id.* Dr. Freedman also indicates that
 4 that the terms “user login authenticator” and “user data flow controller” fail to name sufficient
 5 structure. *See id.* ¶¶ 68–72, 78–82.

6 In response, Synchronoss offers no contrary expert testimony. Synchronoss instead relies
 7 on (1) technical dictionaries to argue that each prefix is well understood in computer science; (2)
 8 specification language that purportedly favors its interpretation, *see, e.g.*, ’696 Patent, 34:1-2,
 9 34:3-7; (3) district court cases finding that certain prefixes impart sufficient structure to “module”;
 10 and (4) Dr. Freedman’s elaboration of “nearly 20 different structures” that can identify or
 11 authenticate users. *See Op. Br.* at 13–15.

12 Synchronoss’s arguments are unavailing. To begin, those Federal Circuit cases cited by
 13 Synchronoss largely pre-date *Williamson*, and therefore do not assume *Williamson*’s tightening of
 14 the means-plus-function presumption. *See Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d
 15 1580 (Fed. Cir. 1996); *TecSec, Inc. v. IBM*, 731 F.3d 1336 (Fed. Cir. 2013). While the court in
 16 *Williamson* partly relied on *Greenberg* and *TecSec*, Synchronoss reads these cases so broadly as to
 17 vitiate *Williamson*’s subsequent, more stringent holding. *See Williamson*, 792 F.3d at 1349
 18 (overruling the characterization of the means-plus-function presumption as “strong,” partly
 19 because the doctrine had “resulted in a proliferation of functional claiming”). Synchronoss’s
 20 repurposing of Dr. Freedman’s testimony likewise fails because it relies on this pre-*Williamson*
 21 view. *See Reply* at 5. Indeed, accepting Synchronoss’s argument that a “broad class of
 22 structures” is sufficient for functional claiming contravenes *Williamson*’s understanding of
 23 Congress’s intent in enacting section 112:

24 In enacting [section 112] Congress struck a balance in allowing
 25 patentees to express a claim limitation by reciting a function to be
 26 performed. . . while placing *specific constraints* on how such a
 27 limitation is to be construed, namely, by restricting the scope of
 coverage to only the structure, materials, or acts described in the
 specification as corresponding to the claimed function and
 equivalents thereof.

28 792 F.3d at 1347; *see Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1317 (Fed. Cir. 2012) (“That

1 various methods might exist to perform a function is precisely why the disclosure of specific
 2 programming is required.” (quotation omitted)). Synchronoss’s reliance on technical dictionary
 3 definitions suffers from a similar flaw: nearly all claim terms would fall outside section 112 if
 4 their component parts could be found in a technical dictionary. To the extent that Synchronoss
 5 cites cases discussing the structural character of certain prefixes, *see* Op. Br. at 12–13; Reply at 6,
 6 these cases are non-binding, distinguishable, and again mostly pre-date *Williamson*. *See VPS,*
 7 *LLC v. SmugMug, Inc.*, No. 10 CV 2142, 2012 WL 5471012, at *15–16 (N.D. Ill. Nov. 9, 2012)
 8 (analyzing the term “user identifier,” which the parties agreed had “sufficient structural meaning
 9 for a person of ordinary skill in the art”); *Finjan, Inc. v. Blue Coat Sys., Inc.*, No. 13-CV-03999-
 10 BLF, 2014 WL 5361976, at *11 (N.D. Cal. Oct. 20, 2014) (deciding between discrete structural
 11 constructions for “certificate authenticator,” as the parties agreed this was a means-plus-function
 12 term subject to section 112); *Blast Motion, Inc. v. Zepp Labs, Inc.*, No. 15-CV-700 JLS (NLS),
 13 2017 WL 476428, at *12–18 (S.D. Cal. Feb. 6, 2017) (finding that several “module’ terms”
 14 survived under section 112 where the parties agreed that some disputed terms were sufficiently
 15 structural, and the court found the specification disclosed adequate corresponding structure for
 16 others).

17 Once section 112 applies, the Court’s analysis is two-fold. *Williamson*, 792 F.3d at 1351–
 18 52. First, the Court identifies the claimed function. *Id.* Synchronoss does not dispute that these
 19 functions are user identification and authentication. *See* Reply at 9; Resp. Br. at 17. Next, the
 20 Court determines what structure, if any, is disclosed in the specification that corresponds to these
 21 functions. *Williamson*, 792 F.3d at 1351–52. Even where structure is corresponding, it must also
 22 constitute “adequate corresponding structure to achieve the claimed function.” *Id.* “If the
 23 patentee fails to disclose adequate corresponding structure, the claim is indefinite.” *Id.*

24 Synchronoss argues that the proposed terms are not indefinite under section 112, relying
 25 principally on (1) written description from the ’696 Patent; and (2) Figures 15–17 of that patent.
 26 Op. Br. at 14–17; Reply at 9–10. With respect to the former, Synchronoss fails to show how the
 27 lines of the specification that it quotes imbue *structure* to “user identifier,” “authentication,” and
 28 “authenticator.” For instance, ’696 Patent, 34:1-2 reads: “[t]he device name and device class

1 uniquely identify a particular *device type* that is being synchronized. . .” *See* Op. Br. at 14. But
 2 the device name identifies device types—not users. Synchronoss also cites ’696 Patent, 42:6-11:
 3 “An account is the root structure, which identifies information about the user’s account. It may
 4 have exemplary field tags . . . such as Name, Password, User-Name and Version.” *Id.* But this
 5 reference to information identification falls within a discussion of how “[d]ata package objects”
 6 are organized. ’696 Patent, 41:58-60. Whatever structure these lines of the specification disclose,
 7 that structure is not structure corresponding to the terms proposed for construction. *See*
 8 *Williamson*, 792 F.3d at 1352 (explaining that “structure” must be “corresponding structure,”
 9 which is satisfied “if the intrinsic evidence clearly links or associates that structure to the function
 10 recited in the claim”) (quotation omitted)). At best, these portions of the specification show that
 11 other components of the claimed invention perform the functions of authentication and
 12 identification. *See Keithley v. Homestore.com, Inc.*, 636 F. Supp. 2d 978, 993–95 (N.D. Cal.
 13 2008) (finding that the specification did not sufficiently describe a structure to perform the
 14 function of “updating” because the language relied upon by the plaintiff “simply describe[d] the
 15 claimed function”). Synchronoss’s vague references at oral argument to “C++ source code”
 16 likewise do not provide corresponding structure to the user authentication/identification functions.
 17 *See* Hr’g Tr. at 32:7-25, 33:1-17, 34:5-14.

18 So too with Figures 15 and 16. Synchronoss contends that “Defendants, by their proposed
 19 construction for ‘synchronization manager’ and ‘synchronization agent’ concede that Figures 15
 20 and 16 show an algorithm that is structure.” Reply at 9; *see Typhoon Touch Techs., Inc. v. Dell,*
 21 *Inc.*, 659 F.3d 1376, 1384 (Fed. Cir. 2011) (“The usage ‘algorithm’ in computer systems has broad
 22 meaning, for it encompasses in essence a series of instructions for the computer to follow. . .”
 23 (quotation omitted)). Figure 15 “is a flow diagram illustrating a pull synchronization in
 24 accordance with the system of the present invention.” ’696 Patent, 4:14-16. Figure 16 is “a flow
 25 diagram illustrating a push synchronization in accordance with the system of present invention.”
 26 ’696 Patent, 4:17-19. The ’696 Patent itself does not equate the phrases “synchronization,”
 27 “synchronization manager,” or “synchronization agent” with any of the “module” terms. These
 28 flow diagrams, which correspond to two discrete claim terms, do not show an algorithm, i.e. a

1 step-by-step process, to perform the functions of identifying and authenticating users. *See*
 2 *Williamson*, 792 F.3d at 1352–54 (holding that a graphic description of a “presenter display
 3 interface” was not “an algorithm corresponding to the claimed ‘coordinating’ function”);
 4 *Aristocrat Techs. Australia Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1334 (Fed. Cir. 2008)
 5 (finding that a mathematical equation that “describe[d] an outcome, not a means for achieving that
 6 outcome” failed to disclose structure); *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d
 7 1361, 1365 (Fed. Cir. 2012) (concluding that no algorithm existed for the function of “controlling
 8 the adjusting means” where the specification merely provid[ed] functional language” and lacked
 9 “any step-by-step process” for performing that function).

10 Finally, Synchronoss elides that the “management server” is simply a “general purpose
 11 computer that can be programmed to perform various functions.” Resp. Br. at 12–13. The Federal
 12 Circuit “has consistently required that the structure disclosed in the specification be more than
 13 simply a general purpose computer or microprocessor,” requiring instead an algorithm to perform
 14 the claimed function. *Williamson*, 792 F.3d at 1352; *see Aristocrat Techs.*, 521 F.3d at 1333
 15 (“Because general purpose computers can be programmed to perform very different tasks in very
 16 different ways, simply disclosing a computer as the structure designated to perform a particular
 17 function does not limit the scope of the claim to the corresponding structure, material, or acts that
 18 perform the function. . .”). Dr. Freedman’s declaration sheds a final light on this issue; he notes an
 19 absence of “any algorithmic structure” for these terms. Freedman Decl. ¶¶ 45, 54, 64, 74, 83.

20 Synchronoss relies on Figure 17 of the ’696 Patent as providing the requisite structure for
 21 “user identifier module” and the “user data flow controller.” Op. Br. at 14; Reply at 9–10. Figure
 22 17 “is a diagram of the management server architecture in accordance with the present invention.”
 23 ’696 Patent, 4:20-21. Synchronoss cites as structure that figure’s textual reference to an “add user
 24 module 1712,” a “user log-in from the welcome screen at 1710,” and “the module for ‘confirm
 25 account 1724.” Op. Br. at 14–15; Reply at 9. But Synchronoss fails to explain, and Figure 17
 26 does not show, how or by what process the claimed system (1) adds a user, (2) logs-in a user, or
 27 (3) confirms an account. *See Williamson*, 792 F.3d at 1352. While Synchronoss contends that the
 28 ’696 Patent provides pseudo-code for performing the data flow implicit in the “user data flow

1 controller,” that code describes “pull synchronization” broadly. *See* Reply at 10 (citing ’696
 2 Patent, 34:49-35:66); ’696 Patent, 34:44-45. This is not corresponding structure. Thus, the Court
 3 concludes that the grouped terms are indefinite under section 112.⁹

4 **E. “synchronization manager communicating with at least one interactive agent to**
 5 **control data migration between a first network coupled device and a second**
 6 **network device” / “synchronization agent” (’696 Patent)**

Synchronoss’s Construction	Defendants’ Construction
<p>7 <i>synchronization manager</i></p> <p>8 <i>communicating with at least one</i></p> <p>9 <i>interactive agent to control data</i></p> <p>10 <i>migration between a first network</i></p> <p>11 <i>coupled device and a second network</i></p> <p>12 <i>device</i> – “software or hardware</p> <p>13 component that manages a user’s</p> <p>14 account and controls data migration</p> <p>15 among network coupled devices in</p> <p>16 communication with at least one</p> <p>17 software that transmits or receives</p> <p>18 change transactions to control data</p> <p>19 migration between a first network</p> <p>20 coupled device and a second network</p> <p>21 coupled device”</p> <p>22 <i>synchronization agent</i> – “software that</p> <p>23 generates or incorporates the change</p> <p>24 transactions”</p>	<p>25 The terms are subject to 35 U.S.C. § 112(6)</p> <p>26 Function:</p> <p>27 <i>synchronization manager communicating with</i></p> <p>28 <i>at least one interactive agent to control data</i></p> <p><i>migration between a first network coupled</i></p> <p><i>device and a second network device</i> –</p> <p>“Controlling data migration between a first</p> <p>network coupled device and a second network</p> <p>coupled device.”</p> <p><i>synchronization agent</i> – “Controlling the flow of</p> <p>user data in the synchronization system”</p> <p>Structure: “A hardware or software component</p> <p>configured to perform the algorithm set forth in</p> <p>Figures 15 and 16 of the ’696 Patent and the</p> <p>corresponding text.”</p>

19 **The Court adopts Defendants’ construction.**

20 The parties’ dispute whether the grouped terms are means-plus-function terms subject to
 21 section 112. Synchronoss turns first to “synchronization manager communicating . . .”, and
 22 requests that it be construed to incorporate its proposed construction of “management server.” *See*
 23 *Op. Br.* at 8, 18 (construing “management server” as “software or hardware component that
 24 manages a user’s account”). For support, Synchronoss relies on (1) claim language from the ’757
 25 and ’696 Patents suggesting that both the “synchronization manager” and “a management server”

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 27 ⁹ At oral argument, Synchronoss disputed Defendants’ pluralization of the term “user.” Hr’g Tr. at
 28 38:20-39:10. Defendants’ use of “user” does not impact the Court’s reasoning or its conclusion.
See id. Even still, Defendants modified their construction at the hearing to “identifying a user.”
 Hr’g Tr. at 41:16-20. This order thus reflects that modification.

1 communicate with agents and/or devices; and (2) the Architecture Guide, which refers to both
2 “server managers” and the “Management Server.” *See id.* at 18.

3 The Court finds that Synchronoss’s construction lacks support in the intrinsic record. The
4 ’696 Patent does not expressly equate “management server” with the term as articulated here:
5 “synchronization manager communicating with at least one interactive agent to control data
6 migration between a first network coupled device and a second network device.” *See Hemslderfer*
7 *v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1382 (Fed. Cir. 2008) (“[D]ifferent claim terms
8 are presumed to have different meanings.”). To be sure, the abstract of the ’696 Patent states that
9 “[t]he management server communicates with at least one interactive agent to control data
10 migration between a computer to a network storage device.” But Synchronoss fails to explain
11 how a person skilled in the art would derive from that written description sufficient structure for
12 the term “synchronization manager communicating. . .” The claim term merely describes a
13 function the synchronization manager could perform, which is insufficient to show structure under
14 section 112. *See, e.g., Williamson*, 792 F.3d at 1350–52; *Ergo Licensing, LLC*, 673 F.3d at 1365.
15 For the reasons discussed above, the Architecture Guide does not shed light on the claim terms as
16 used in the ’696 Patent.

17 The Court likewise finds persuasive Dr. Freedman’s testimony on this term. As Dr.
18 Freedman opines, the word “synchronization” does not impart sufficient specific structure to the
19 words “manager” or “agent,” which a person of ordinary skill would understand to be “generic
20 descriptors for software or hardware that perform a specified function, or manage something,
21 respectively.” Freedman Decl. ¶¶ 103–104. There are, moreover, “many ways in which a system
22 could control data migration between devices,” including though a single computer process
23 involving “logic to dispatch data between code modules within the same program,” or by using “a
24 locking mechanism to prevent multiple users from accessing and modifying the same data at the
25 same time.” *See id.* ¶ 106 (providing additional examples). Defendants, relying on Dr.
26 Freedman’s testimony, argue that the term itself discloses the function of “controlling data
27 migration between a first network coupled device and a second network coupled device.” *Id.* ¶
28 108; *see Resp. Br.* at 25. Synchronoss does not dispute that claimed function. *See Reply* at 10–

1 11. The Court agrees, and therefore adopts Defendants’ construction.

2 With respect to the term “synchronization agent,” Synchronoss argues that the term
3 “agent” is understood by skilled artisans to mean “the managed nodes in a network.” Op. Br. at
4 19. Synchronoss accordingly asserts that “these nodes are the device engines that transmit or
5 receive the change logs / difference information from the devices.” *Id.* at 19–20 (citing ’696
6 Patent, 13:28-38, 13:40-43). Synchronoss therefore contends that the Court should construe this
7 term analogously to “sync engine.” *Id.* The parties have agreed to construe “sync engine” as
8 “software that transmits or receives difference information.” *See* Amended JCCS, Ex. A.

9 The Court rejects Synchronoss’s construction of “synchronization agent.” Synchronoss
10 again sidesteps the question of whether a person of ordinary skill in the art would understand
11 “synchronization agent” as a name for structure—and in particular, structure corresponding to the
12 parties’ agreed construction of “sync engine.” *See Hemslderfer*, 527 F.3d at 1382. Synchronoss
13 fails to explain how the agent “generates or incorporates” change transactions, which Dr.
14 Freedman opines can be completed in many ways. Freedman Decl. ¶¶ 112–114. As far as
15 function, Plaintiff’s construction of “synchronization manger controlling. . .” is inclusive of the
16 synchronization agent’s role of transmitting or receiving change transactions. Plaintiff
17 acknowledges, moreover, that these disclosed functions are the same functions that device engines
18 perform. *See* Op. Br. 19 (“These nodes are the device engines that transmit or receive the change
19 logs / difference information from the devices.”). Defendants’ identification of function is not
20 inconsistent with that understanding. *See* Freedman Decl. ¶ 117. Finally, the Court finds it
21 appropriate to adopt Defendants’ proposed structure, which is supported by the language of the
22 specification.

23 **F. “versioning modules” / “versioning information” (’696 Patent)**

Synchronoss’s Construction	Defendants’ Construction
<p>25 <i>versioning modules</i> – “software that applies 26 versioning information to objects in a 27 change transaction”</p>	<p>25 <i>versioning modules</i> – 26 The term is subject to 35 U.S.C. § 112(6) 27 Function: “Applying a version number per 28 object in the data package”</p>

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<p><i>versioning information</i> – “information about modifications to data”</p>	<p>Structure: “A hardware or software component configured to identify a DataPack file using specific rules based on the file name. The file name is of the form ‘UUID.VER’ where UUID is the identifier for the specific object and VER is the transaction version number. The version number is of the form ‘D0001’ with additional digits used for large version numbers. The ‘D000’ value may be reserved for the base version for the object.”</p> <p><i>versioning information</i> – “A unique version number applied per object in the data package using specific rules based on the file name. The file name is of the form ‘UUID.VER’ where UUID is the identifier for the specific object and VER is the transaction version number. The version number is of the form ‘D0001’ with additional digits used for large version numbers. The ‘D000’ value may be reserved for the base version for the object.”</p>
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The Court adopts Defendants’ construction.

The dispute here parallels other “module” terms. Synchronoss relies for its construction on: (1) technical dictionary definitions of the words “version” and “information,” arguing that these terms are “well understood in the art”; (2) specification language that it identifies as providing structure to “versioning module”; (3) district court cases finding that “communications module” and “data storage” module are structural terms; and (4) Dr. Freedman’s statement that versioning can be accomplished through “approximately 17 structural ways.” *See* Op. Br. at 21–23. Synchronoss also argues that Defendants improperly attempt “to import an embodiment disclosed in the specification into the construction” by assigning a version number in a particular format, “U0001.” Op. Br. at 22.

The Court is not persuaded. To begin, that a technical dictionary defines one word in the claim term is not dispositive of structure under *Williamson*, 792 F.3d at 1351–52. The specification also fails to show that “versioning” is a name for structure corresponding to “versioning module.” Rather, the written description articulates the function identified by Defendants: “versioning module. . . applies a version number per object in the data package.” *See*

1 '696 Patent, 12:10-12 (“Device engine 860 includes a versioning module which applies a version
2 number per object in the data package.”), 13:3-27 (discussing how the versioning module allows
3 “multiple users accessing the same machine to each synchronize their own data set using the same
4 device engine”). Synchronoss does not explain how one of ordinary skill in the art would
5 understand the specification’s “exemplary pseudo-code” as corresponding structure. Op. Br. at 22
6 (citing ’696 Patent, 40:55-63). Rather, the pseudo-code illustrates how the “data package
7 transaction format may take a number of forms.” ’696 Patent, 40:55-56. That is consistent with
8 Defendants’ identification of function.

9 Furthermore, Dr. Freedman’s testimony supports that the “version[ing]” prefix is not a
10 name for structure, but rather describes a function. He explains that there are various structural
11 choices available when applying “versioning” information, including by (1) generating and
12 assigning version numbers sequentially or at random; (2) assigning uniqueness globally or limiting
13 it to the scope of a “user, object, file, or directory”; (3) assigning versioning information in a
14 “linear fashion,” or having it “track the same tree structure of the shared data”; or (4) formatting
15 differently the version values by assigning numbers, “strings, hexadecimal values, or some other
16 data types, including arrays of multiple values (e.g. ‘version vectors’).” Freedman Decl. ¶ 98. In
17 rebutting Dr. Freedman’s testimony, Synchronoss again relies on inapposite, pre-*Williamson* case
18 law. *See* Op. Br. at 22–23; *supra* Part III.D. The Court therefore adopts Defendants’ functional
19 construction.

20 Having identified function, the Court looks to whether there is adequate corresponding
21 structure. Defendants admit that a person of ordinary skill *would* associate some structure from
22 the specification as corresponding with the function of applying a version number. *See* Freedman
23 Decl. ¶ 101. Dr. Freedman explains that Defendants’ structural construction “corresponds to the
24 claimed function of applying version numbers, because it describes the format of the version
25 numbers that are assigned to each object.” *Id.* The Court finds that the specification supports
26 Defendants’ identification of structure. *See* ’696 Patent, 38:48-54 (describing how “[a] DataPack
27 file is identified using specific rules based on the file name”).

28 Contrary to Synchronoss’s claim, Defendants’ construction of “versioning information”

1 does not improperly limit that term to one disclosed embodiment. The specification itself does not
 2 show that Defendants’ construction incorporates an embodiment of the claimed invention. Rather,
 3 the specification situates versioning information within a broader structural explanation of the
 4 DataPack. *See* ’696 Patent, 37:62-65, 38:3-7 (“The general architecture of the package provides
 5 for transactions, application data, file data, files, objects and identifiers to be carried in the data
 6 package.”). As Defendants explained at oral argument, versioning information logically
 7 comprises an output of the versioning module. Hr’g Tr. at 65:17-66:10. To that end, Defendants
 8 also accounted for how their constructions comport with the exemplary pseudo-code relied on by
 9 Plaintiff. *See id.* at 65:5-10, 67:8-68:4; *Irdeto Access, Inc. v. Echostar Satellite Corp.*, 383 F.3d
 10 1295, 1300 (Fed. Cir. 2004) (“Even when guidance is not provided in explicit definitional format,
 11 the specification may define claim terms ‘by implication’ such that the meaning may be found in
 12 or ascertained by a reading of the patent documents.” (quotation omitted)). Thus, the Court also
 13 adopts Defendants’ construction of the term “versioning information.”

14 **G. “transaction identifier module” (’696 Patent)**

Synchronoss’s Construction	Defendants’ Construction
“software for identifying a transaction”	<p>The term is subject to 35 U.S.C. § 112(6)</p> <p>Function: “Identifying transactions in the synchronization system”</p> <p>Structure: None identified in the specification</p>

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21 **The Court finds that the term is indefinite under 35 U.S.C. § 112(6).**

22 The parties’ arguments track those concerning other terms Defendants argue to be means-
 23 plus-function terms. Synchronoss relies on (1) the district court cases discussed in Part III.D; (2)
 24 technical dictionary definitions of “transaction,” “transaction_ID,” “identifier,” and “module,”
 25 arguing that these terms are well understood in the art; (3) written descriptions from the
 26 specification; and (4) Dr. Freedman’s statement that a transaction could be identified through
 27 “approximately 15 different structures.” *See* Op. Br. at 23–25.

28 The Court concludes that section 112 applies. Definitions of “transaction,” “identifier,”

1 and “module” do not shed light on how a person of ordinary skill might understand the phrase
 2 “transaction identifier module.” *See* Freedman Decl. ¶¶ 86–88; *Aguayo v. Universal Instruments*
 3 *Corp.*, No. CIV.A. H-02-1747, 2003 WL 25787593, at *14 (S.D. Tex. June 9, 2003) (holding that
 4 section 112 applied where technical dictionaries did not define the entirety of the claim term
 5 “component identifier,” that phrase was worded in “functional terms,” and the plaintiff’s expert
 6 declared he was “unaware of any structures” bearing the name “component identifier”).
 7 Synchronoss, moreover, fails to explain how the cited descriptions in the specification impart
 8 corresponding structure to *this* term. *See* ’696 Patent, 45:49-56 (“[A] management server
 9 communicating with said network coupled devices and the storage server, including a transaction
 10 identifier and a user authenticator.”), 38:48-54 (describing how a “DataPack file is identified using
 11 specific rules based on the file name”), 37:62-63 (“A DataPack essentially contains a sequence of
 12 transactions describing the changes to information.”), 38:3-9 (indicating that the “general
 13 architecture of the DataPack” provides for “transactions”). These snippets of the specification
 14 show, at best, corresponding structure for the DataPack. The specification does not establish the
 15 requisite link between any structure inherent to the DataPack and the “transaction identifier
 16 module.” *See, e.g., Williamson*, 792 F.3d 1350–52.

17 Dr. Freedman similarly opines that “the very function of identifying transactions is not
 18 standardized in the field of computer technology. Thus, a person of ordinary skill would not be
 19 able to discern any structure from the mere reference to a ‘transaction identifier module’ . . .”
 20 Freedman Decl. ¶¶ 88–91. Dr. Freedman then lists over a dozen different ways of identifying a
 21 transaction. *Id.* For the reasons discussed in Part III.D, the Court finds unconvincing
 22 Synchronoss’s repurposing of Dr. Freedman’s declaration. *See* Op. Br. at 24–25. Plaintiff’s
 23 construction, moreover, coheres with Defendants’ understanding that the “transaction identifier
 24 module” identifies transactions. *See* Freedman Decl. ¶ 91. As for structure, Synchronoss does not
 25 identify any algorithm corresponding to this module. Dr. Freedman notes the absence of
 26 algorithmic structure:

27 Nowhere in the specification is there any algorithmic structure for
 28 implementing the function of identifying transactions—no formula,
 prose, flow chart or pseudocode. Nor is there any other structural

1 guidance. The specification does discuss transactions in the context
 2 of data package files, *see* '696 patent at 37:62-38:46, but it does not
 3 explain how those transactions are assigned identifiers or how they
 are identified within the synchronization system.

4 *Id.* ¶ 92. The Court agrees, and finds the term indefinite for lack of structure.

5 **H. “universally unique identifier” ('696 Patent)**

Synchronoss’s Construction	Defendants’ Construction
“A unique 128 bit value which may be assigned by the system provider”	“128-bit value consisting of 16 octets that guarantees uniqueness across space and time and is standardized by the Open Software Foundation”

11 **The Court adopts Plaintiff’s construction.**

12 Synchronoss argues that the patentee has acted as a lexicographer to define the term
 13 “universally unique identifier.” Op. Br. at 25. Synchronoss cites the '696 Patent specification at
 14 38:34-35, which provides: “Each UUID has a unique 128 bit value which may be assigned by the
 15 system provider.” The cited text mirrors Synchronoss’s proposed construction. Synchronoss
 16 contends that Defendants attempt to improperly import limitations into the claim language. Op.
 17 Br. at 26. For instance, Synchronoss offers an example of a non-Open Software Foundation
 18 UUID, an ITU-T generated UUID. *Id.*

19 Defendants do not dispute that Synchronoss’s construction describes a universally unique
 20 identifier, but instead contend that Synchronoss’s construction is not sufficiently specific. Resp.
 21 Br. at 26–27. Defendants argue that Plaintiff’s construction elides well-known and defining
 22 features of a UUID that their construction captures—for instance, a guarantee of universal
 23 uniqueness. *Id.*; *see* Freedman Decl. ¶¶ 29–37. Defendants also rely on language from the
 24 specification that refers to a “128-bit UUID as defined by *standard*” or a “UUID *standard*.” *See*
 25 Resp. Br. 26 (citing '696 Patent, 41:7-9, 43:41-42). Finally, Defendants argue that Synchronoss’s
 26 citation to non-Open Software Foundation UUIDs is misplaced because the UUID standard
 27 “contemplates alternative methods of generating a UUID.” *Id.* at 27–28.

28 The Court adopts Synchronoss’s construction, which finds express support in the

1 specification. *Thorner*, 669 F.3d at 1365. In contrast, Defendants’ construction would require the
 2 Court to import extrinsic limitations into the specification. *See Phillips*, 415 F.3d at 1312–13.
 3 While hypothetical, Defendants indicate that there may some circumstance where a UUID is not
 4 universally unique. Resp. Br. at 27. Synchronoss’s construction also does not write-out UUID’s
 5 uniqueness. That construction states, for instance, that a 128-bit value must be “unique.”

6 **I. “digital media file” (’446 Patent)**

Synchronoss’s Construction	Defendants’ Construction
<p>7 8 9 10 11</p> <p>plain and ordinary meaning– “a file comprising digital media content”</p>	<p>plain and ordinary meaning – “digital audio or video content in the form of an individual file such as an MPEG, MP3, RealAudio, or Liquid Audio file”</p>

12 **The Court adopts Defendants’ construction modified as follows: “digital audio or**
 13 **video content in the form of a file such as an MPEG, MP3, RealAudio, or Liquid Audio file.”**

14 This dispute concerns the plain and ordinary meaning of “digital media file.” Synchronoss
 15 argues that a proper construction of “digital media file” includes text files and digital images in
 16 addition to audio and video content. Op. Br. at 26–27. In addition, Synchronoss takes issue with
 17 Defendants’ insertion of “individual” in front of “file,” contending that this contradicts the
 18 specification and the patentee’s intent. *Id.* In response, Defendants distinguish the phrase “digital
 19 media content” from “digital media file.” Resp. Br. at 28. Defendants argue that the word
 20 “individual” connotes “a discrete complete media file” as opposed to “any file that happens to
 21 contain some media data.” *Id.* at 28 n.1. Both sides cite the specification as supporting their
 22 interpretation.

23 The Court ordered supplemental submissions on this issue following oral argument, as the
 24 parties initially failed to address how a person skilled in the art would interpret the term “digital
 25 media file.” *See Phillips*, 415 F.3d at 1312–13; Hr’g Tr. at 84:3-6, 90:9-23. The parties
 26 subsequently filed supplemental declarations. *See* Dkt. No. 166 (“Alpaugh Decl.”); Dkt. No. 167
 27 (“Freedman Suppl. Decl.”); *see also* No. 16-cv-00120, Dkt. No. 100 at 1 (stating that “Egnyte
 28 takes the position set forth by Dropbox”). Synchronoss’s expert, Mr. Christopher Alpaugh, speaks

1 primarily to the phrase “digital media,” emphasizing its considerable breadth. *See* Alpaugh Decl.
 2 ¶¶ 18–33. Mr. Alpaugh relies on technical dictionaries, journal articles, and other patents that
 3 discretely define the words “digital,” “media,” and sometimes “digital media.” *See id.* These
 4 terms, however, are distinct from the composite term to be construed: “digital media file.” Partly
 5 as a result, Plaintiff elides the key inquiry: whether a person of ordinary skill in the art would
 6 understand the term “digital media file” to include files primarily comprising text, e.g. word
 7 processing documents, or whether that term refers instead to audio and video files that tangentially
 8 contain text, e.g. the name of a song or title of a video. *See* Hr’g Tr. at 81:2-9.

9 Dr. Freedman’s declaration, in contrast, directly responds to this inquiry. *See* Freedman
 10 Suppl. Decl. ¶ 4. Dr. Freedman explains how “Synchronoss’s proposed construction would
 11 encompass any type of file that happens to contain some digital media content,” contravening the
 12 ordinary meaning of “digital media file” to a person skilled in the art. *Id.* ¶¶ 4–5 (“But a person of
 13 ordinary skill would not consider a Microsoft Word document or PowerPoint presentation that
 14 happens to contain an embedded video to be a digital media file.”). Dr. Freedman continues that a
 15 person of ordinary skill would understand a “digital media file” to contain “primarily digital
 16 media, which is an encoded representation of analog audio and/or video input.” *Id.* ¶ 5.

17 The Court finds that the specification supports Defendants’ position. Not only does the
 18 ’446 Patent refer to digital media content as audio and video, but it also distinguishes between
 19 “digital music files” and other kinds of “data files” such as “documents.” *See* ’446 Patent, 1:43-44
 20 (“[D]igital media content can comprise a series of files such as MPEG, MP3, RealAudio, and the
 21 like. . .”), 3:21-26 (“Digital media comes in many forms. Two of the most common are Moving
 22 Picture Experts Group (MPEG 1, Audio 25 Level3 or ‘MP3’) encoded format and Liquid Audio
 23 format.”), 9:8-13 (“One example of media information which may be provided into personal
 24 information space is to utilize the aforementioned system on a public information server which
 25 allows transference of data files, such as executables, documents, or digital music files
 26 (MP3’s”).¹⁰

27 _____
 28 ¹⁰ There is no dispute that the listed types of files are illustrative examples, and that other types of
 digital media files are not categorically excluded. *See* Hr’g Tr. at 83:1-21, 88:9-25, 89:5-90:8. At

1 And yet, Dr. Freedman does not defend Dropbox’s placement of the word “individual” in
 2 front of “digital media file.” Defendants do not offer any other evidence to show that a person of
 3 ordinary skill in the art would understand a “digital media file” to necessarily be an “individual”
 4 file, as opposed to a part or portion of a file. The Court nevertheless finds that it can omit the
 5 word “individual” from Defendants’ construction without altering the substantive meaning of the
 6 phrase “digital media file.” *See* Alpaugh Decl. ¶ 16 (noting that “the formatting of the file is a
 7 separate issue from the term digital media file”); Resp. Br. at 28 n.2 (clarifying that the term
 8 “individual” “simply emphasizes that a ‘digital media file’ is a discrete, complete media file like
 9 an MP3 or JPEG, not any file that happens to contain some media data”). Removing the word
 10 “individual” resolves Synchronoss’s objection to Defendants’ use of that term.

11 **J. “web browser” (’446 Patent)**

Synchronoss’s Construction	Defendants’ Construction
“a software application that allows a user access to an information store on the World Wide Web”	“software application, such as Microsoft Internet Explorer, for viewing and interacting with web pages on the World Wide Web”

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 16 **The Court adopts Defendants’ construction modified as follows: “software
 17 application for viewing and interacting with web pages on the World Wide Web.”**

18 The dispute here turns on two issues: (1) Synchronoss’s use of the words “information
 19 store”; and (2) Defendants’ inclusion of the exemplar “Microsoft Internet Explorer.” In support of
 20 its construction, Synchronoss cites to the specification’s express reference to an “information
 21 store.” *See* Op. Br. at 28–29; ’446 Patent, 7:52-54 (“In FIG. 3, a user 550 interacts with, for
 22 example, a browser application 100, such as a World Wide Web browser, which allows the user
 23 access to an information store.”). Synchronoss also takes issue with the phrase “Microsoft
 24 Internet Explorer,” arguing that this exemplar (1) will confuse the jury; and (2) contradicts Figure
 25 2 of the ’446 Patent. *See id.* Synchronoss claims that this figure distinguishes between a “web
 26 browser” and an Internet Explorer application. *See id.*

27
 28 trial, the Court will ensure that the jury is instructed accordingly. *See id.*

1 In response, Defendants stress that Synchronoss took the opposite position in prior
2 litigation. See Resp. Br. at 29 (citing *Synchronoss Tech., Inc. v. NewBay Software, Inc.*
3 (*NewBay*), No. 11-cv-04947-FLW, Dkt. No. 48-2 (D.N.J. Nov. 14, 2012)). Defendants argue
4 that Synchronoss now tactically seeks to expand the term’s meaning to encompass Dropbox’s
5 “proprietary mobile application.” *Id.* Defendants contend that their construction of web browser
6 reflects that term’s well-understood meaning in the relevant art. *Id.* at 30; see Freedman Decl. ¶¶
7 123–128. Defendants accordingly claim that Synchronoss’s construction omits the “core
8 distinguishing feature” of “web browser,” i.e. “that it is a program to ‘browse’ the ‘web.’” Resp.
9 Br. at 30.

10 The Court agrees with Defendants. The Court notes that Synchronoss adopted Defendants’
11 proposed construction almost verbatim in *NewBay*. See Dkt. No. 150-6 at 1 (proposing that the
12 claim term “web browser” be construed as “a software application, such as Internet Explorer, for
13 viewing and interacting with the World Wide Web”). In *NewBay*, Synchronoss cited as
14 supportive evidence specification language from the ’446 Patent at 2:12-20, 6:9-21, 7:52-56, and
15 Figs. 1, 3. While Synchronoss claims that it disputed the defendant’s proposed construction in
16 *NewBay*, which parallels Defendants’ construction here, Synchronoss’s prior position still casts
17 doubt on its distinct construction of “web browser” in this action. See Reply at 14. The Court also
18 finds that the specification is not inconsistent with Defendants’ construction, including the use of
19 the phrase “interacting with web pages.” See Freedman Decl. ¶¶ 123, 126.

20 As to the “Microsoft Internet Explorer” exemplar, however, Defendants offer little
21 justification apart from references to Synchronoss’s prior litigation position. See Resp. Br. at 30.
22 The Court concludes that it can omit “Microsoft Internet Explorer” without altering the meaning
23 of “web browser” as proposed by Defendants.

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1 **IV. CONCLUSION**

2 The Court **CONSTRUES** the disputed terms as follows:

Grouping and Patent(s)	Construction
<p>3 4 “a previous state of said data” 5 “copy of a previous state of said data” 6 (’757 Patent)</p>	<p>“a copy of a previous version of the data that is used in a comparison against a copy of the current version of the data to generate difference information”</p>
<p>7 8 “management server” 9 “management dedicated network coupled device” 10 “synchronization agent management server” 11 (’757 Patent and ’696 Patent)</p>	<p>“a centralized server which controls behavior and characteristics of the entire network of device engines across all users”</p>
<p>12 “[first / second] system” 13 “[first / second] device” 14 “device[s]” 15 “network coupled device[s]” 16 “network coupled apparatus[es]” 17 (’757 Patent, ’696 Patent, and ’446 Patent)</p>	<p>“a collection of elements or components organized for a common purpose, and may include hardware components of a computer system, personal information devices, hand-held computers, notebooks, or any combination of hardware which may include a processor and memory which is adapted to receive or provide information to another device; or any software containing such information residing on a single collection of hardware or on different collections of hardware”</p>
<p>18 “user identifier module” 19 “authentication module identifying a user coupled to the synchronization system” 20 “user authenticator module” 21 “user login authenticator” 22 “user data flow controller” 23 (’696 Patent)</p>	<p>Terms indefinite under 35 U.S.C. § 112(6)</p>
<p>24 “synchronization manager communicating with at least one interactive agent to control data migration between a first network coupled device and a second network device” 25 “synchronization agent” 26 (’696 Patent)</p>	<p>Function: <i>synchronization manager communicating with at least one interactive agent to control data migration between a first network coupled device and a second network device</i> – “Controlling data migration between a first network coupled device and a second network coupled device” <i>Synchronization agent</i> – “Controlling the flow of user data in the synchronization system”</p>

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	<p>Structure: “A hardware or software component configured to perform the algorithm set forth in Figures 15 and 16 of the ’696 Patent and the corresponding text.”</p>
<p>“versioning modules” “versioning information” (’696 Patent)</p>	<p>versioning modules</p> <ul style="list-style-type: none"> • Function: “Applying a version number per object in the data package” • Structure: “A hardware or software component configured to identify a DataPack file using specific rules based on the file name. The file name is of the form ‘UUID.VER’ where UUID is the identifier for the specific object and VER is the transaction version number. The version number is of the form ‘D0001’ with additional digits used for large version numbers. The ‘D000’ value may be reserved for the base version for the object.” <p>versioning information – “A unique version number applied per object in the data package using specific rules based on the file name. The file name is of the form ‘UUID.VER’ where UUID is the identifier for the specific object and VER is the transaction version number. The version number is of the form ‘D0001’ with additional digits used for large version numbers. The ‘D000’ value may be reserved for the base version for the object.”</p>
<p>“transaction identifier module” (’696 Patent)</p>	<p>Term indefinite under 35 U.S.C. § 112(6)</p>
<p>“universally unique identifier” (’696 Patent)</p>	<p>“A unique 128 bit value which may be assigned by the system provider”</p>
<p>“digital media file” (’446 Patent)</p>	<p>plain and ordinary meaning – “digital audio or video content in the form of a file such as an MPEG, MP3, RealAudio, or Liquid Audio file”</p>
<p>“web browser” (’446 Patent)</p>	<p>“software application for viewing and interacting with web pages on the World Wide Web”</p>

In addition, the Court **SETS** a further case management conference (“CMC”) for Tuesday, January 9, 2018 at 2:00 p.m. The Court **DIRECTS** the parties to consult the scheduling order currently in effect for upcoming deadlines that are triggered by this claim construction order. *See* Dkt. No. 133. The Court also **DIRECTS** the parties to meet and confer before the CMC to

1 discuss a proposed case schedule through trial, and to submit a joint CMC statement by Tuesday,
2 January 2, 2018.

3 **IT IS SO ORDERED.**

4 Dated: 12/7/2017

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6 HAYWOOD S. GILLIAM, JR.
7 United States District Judge
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