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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMAZON.COM, INC., AMAZON DIGITAL SERVICES, INC.,  
AMAZON FULFILLMENT SERVICES, INC., HULU, LLC,  
AND NETFLIX, INC,  
Petitioner

v.

UNILOC 2017 LLC  
Patent Owner.

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Case IPR2017-00948  
U.S. Patent No. Patent 8,566,960 B2

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**PATENT OWNER'S NOTICE OF APPEAL**

Mail Stop  
**Patent Board**  
Patent Trial and Appeal Board  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Pursuant to 35 U.S.C. §§ 141 and 142 and 37 C.F.R. §§ 90.2 and 90.3, Patent Owner Uniloc 2017 LLC. (“Patent Owner”) hereby provides notice that it appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered August 1, 2018 (Paper 31); the Decision Denying Patent Owner’s Request for Rehearing entered September 6, 2018 (Paper 33); and from all underlying findings, orders, decisions, rulings, and opinions, including, without limitation the institution decision entered August 14, 2017 (Paper 10).

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Patent Owner states that the issues for appeal include, but are not limited to: the Patent Trial and Appeals Board (“Board”)’s determinations to deny Patent Owner’s Motion to Amend U.S. Patent No 8,566,960 B2 (the “960 patent”); the Decision Denying Patent Owner’s Request for Rehearing; the Board’s consideration and analysis of the expert testimony, prior art, and other evidence in the record; and the Board’s factual findings, conclusions of law, or other determinations supporting or relating to the above issues.

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.2(a), this Notice is being filed with the Director of the United States Patent and Trademark Office. Simultaneous with this submission, a copy of this Notice is being filed with the Patent Trial and Appeal Board. In addition, a copy of this Notice, along with the required docketing fees, is being filed with the Clerk’s office of the United States Court of Appeals for the Federal Circuit.

DATED: March 21, 2019

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**CERTIFICATE OF SERVICE**

The undersigned certifies that, in addition to being filed electronically through the Patent Trial and Appeal Board's E2E, the foregoing Notice of Appeal was filed by Express Mail on March 21, 2019, with the Director of the United States Patent and Trademark Office, at the following address:

Director of the United States Patent and Trademark Office  
c/o Office of the General Counsel  
P.O. Box 1450  
Alexandria, VA 22313-1450

The undersigned certifies that a copy of the foregoing Notice of Appeal, along with the required docket fee, was filed on March 21, 2019, with the Clerk's Office for the United States Court of Appeals for the Federal Circuit through the Court's CM/ECF filing system.

The undersigned certifies service pursuant to 37 C.F.R. § 42.6(e) of a copy of this Notice of Appeal by electronic mail on March 21, 2019, on the counsel of record for Petitioner:

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DATED: March 21, 2019

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Paper No. 10  
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMAZON.COM, INC., AMAZON DIGITAL SERVICES, INC.,  
AMAZON FULFILLMENT SERVICES, INC., HULU, LLC,  
and NETFLIX, INC,  
Petitioner,

v.

UNILOC LUXEMBOURG S.A.,  
Patent Owner.

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Case IPR2017-00948  
Patent 8,566,960 B2

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Before DAVID C. MCKONE, BARBARA A. PARVIS, and  
MICHELLE N. WORMMEESTER, *Administrative Patent Judges*.

MCKONE, *Administrative Patent Judge*.

DECISION  
Institution of *Inter Partes* Review  
37 C.F.R. § 42.108

## I. INTRODUCTION

### *A. Background*

Amazon.com, Inc., Amazon Digital Services, Inc., Amazon Fulfillment Services, Inc., Hulu, LLC, And Netflix, Inc. (collectively “Petitioner”) filed a Petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims 1–25 of U.S. Patent No. 8,566,960 B2 (Ex. 1001, “the ’960 patent”). Uniloc Luxembourg S.A. (“Patent Owner”) filed a Preliminary Response (Paper 9, “Prelim. Resp.”). Upon consideration of the Petition and Preliminary Response, we conclude, under 35 U.S.C. § 314(a), that Petitioner has established a reasonable likelihood that it would prevail with respect to each of the challenged claims. Accordingly, we institute an *inter partes* review of claims 1–25 of the ’960 patent.

### *B. Related Matters*

The parties indicate that the ’960 patent has been asserted in several lawsuits in the United States District Court for the Eastern District of Texas. Pet. 2–3; Paper 6, 2. The ’960 patent also was the subject of *Unified Patents Inc. v. Uniloc USA, Inc.*, Case IPR2016-01271 (PTAB). Pet. 3.

### *C. Evidence Relied Upon*

Petitioner relies on the following prior art:

Ex. 1003 (“DeMello”)	US 7,047,411 B1	May 16, 2006
Ex. 1004 (“Staruiala,”)	IE 02/0429	Nov. 27, 2002

Petitioner also relies on the Declaration of Aviel Rubin, Ph.D. (Ex. 1002, “Rubin Decl.”).

Patent Owner relies on the Declaration of Val DiEuliis, Ph.D.  
(Ex. 2001, “DiEuliis Decl.”).

*D. The Asserted Grounds*

Petitioner asserts the following grounds of unpatentability (Pet. 5):

Reference(s)	Basis	Claims Challenged
DeMello	§ 102(b)	1–5, 7–10, 12–14, 16–18, and 22–25
DeMello	§ 103(a)	6, 7, 11, 12, 15, and 16
DeMello and Staruiala	§ 103(a)	1–25

*E. The '960 Patent*

The '960 patent describes techniques for monitoring and adjusting software usage under software licenses. Ex. 1001, 1:16–20. The '960 patent discusses problems with existing software licensing schemes, including that “consumers of software have normal patterns of use that include the installation and use of digital products on multiple devices” and that “computers are also bought, sold and replaced so over time maybe two or three times this number of computers may be used by the user over time with a legitimate need to install and use the software on every computer.” *Id.* at 1:31–41. The '960 patent addresses these problems with “an improved technique for allowing for a changing number of device installations on a per license basis over time.” *Id.* at 1:67–2:2.

Figure 2, reproduced below, illustrates an example:

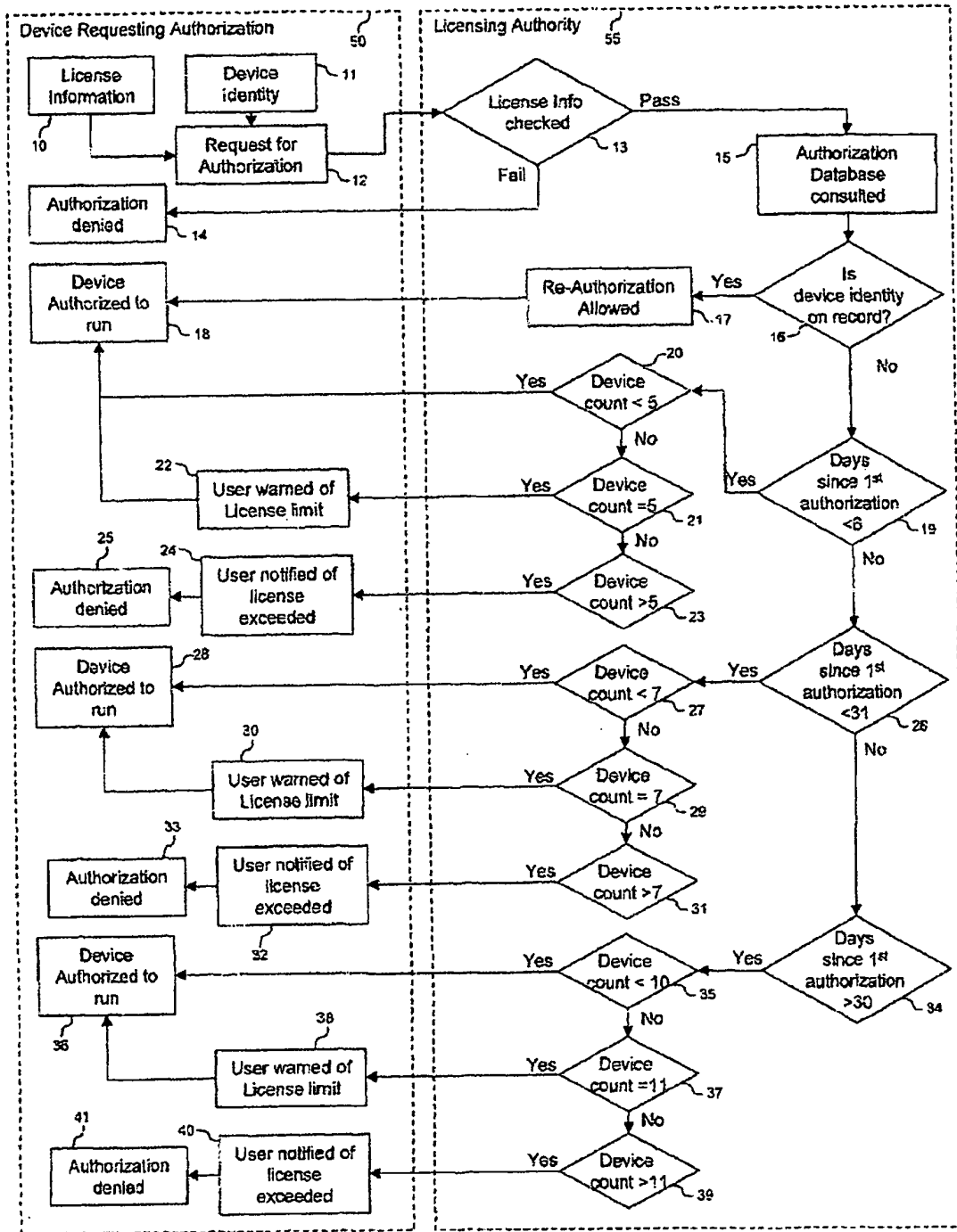


Figure 2

Figure 2 is a flowchart for an approach to adjusting a license for a digital product. *Id.* at 3:20–21. In Figure 2, device 50 requests authorization from



licensing authority 55 (e.g., a publisher or distributor) to use a copy of a software license. *Id.* at 4:50–55.

Device 50 gathers information about itself, including license related information 10 and unique device identifying information 11, and sends a request for authorization 12 to licensing authority 55. *Id.* at 4:56–59.

Licensing authority 55 checks whether the requesting device's unique identifying information 11 exists in its database of prior authorizations 15 and, if so, reauthorizes device 50 and allows the software to run on the device. *Id.* at 5:1–12 (steps 13–18).

If unique identifying information 11 is not in its database of prior authorizations 15, and if the request comes within the first five days of the licensing period, licensing authority 55 determines a device count of the number of successful authorizations for new devices that have been allowed and, if the device count is less than a device count limit of five, licensing authority 55 sends device 50 a message allowing the software to be used. *Id.* at 5:13–26 (steps 18–19). If the device count is equal to five, licensing authority 55 can send a message to device 50 allowing the device to run, but also informing the user that the limit on available devices has been reached and that subsequent requests may be denied. *Id.* at 5:26–32 (step 22). If the device count is greater than five (step 23), licensing authority 55 sends a message to device 50 denying authorization (step 24). *Id.* at 5:33–40.

If request 12 comes between six and thirty-one days from the first successful authorization, licensing authority 55 performs similar tests, this time with a device count limit of seven. *Id.* at 5:41–60 (steps 19–33). Likewise, if request 12 comes after thirty-one days, licensing authority 55

performs similar tests with a device count limit of eleven. *Id.* at 5:61–6:7 (steps 34–41).

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A system for adjusting a license for a digital product over time, the license comprising at least one allowed copy count corresponding to a maximum number of devices authorized for use with the digital product, comprising:
  - a communication module for receiving a request for authorization to use the digital product from a given device;
  - a processor module in operative communication with the communication module;
  - a memory module in operative communication with the processor module and comprising executable code for the processor module to:
    - verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the given device;
    - in response to the device identity already being on a record, allow the digital product to be used on the given device;
    - in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period, the allowed copy count corresponding to a maximum number of devices authorized to use the digital product;
  - calculate a device count corresponding to total number of devices already authorized for use with the digital product; and

when the calculated device count is less than the first upper limit, allow the digital product to be used on the given device.

## II. ANALYSIS

### A. *Claim Construction*

We interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–45 (2016). In applying a broadest reasonable construction, claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

1. *“verify[ing] that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the [given device/computer]” (claims 1, 22, 25)*

Claim 1 recites “verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the given device” (“the ‘verify’ limitation”). That recitation is followed by two clauses, “in response to the device identity already being on a record, allow the digital product to be used on the given device” and “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period.” Independent claims 22 and 25 include similar recitations.

Although neither party proposes an express construction for the “verify” limitation, the parties’ respective application of this language to the prior art reveals a dispute.

As explained in more detail below, Petitioner contends that this limitation is disclosed by DeMello’s description of an activation server checking whether a machine ID (derived from hardware information) is on record in an activation database as activated for a Microsoft Passport ID associated with a user and the user’s eBook licenses. Pet. 27–28. Thus, Petitioner contends that verifying license data based in part on a device identity encompasses determining whether the device identity is on record as activated for data associated with a license. Petitioner, then, ties claim 1’s “verify” limitation to the following two limitations, “in response to the device identity already being on a record . . .” and “in response to the device identity not being on the record . . .” In other words, Petitioner essentially contends that the “verify” limitation sets forth a test and that the two “in response to” limitations set forth alternative actions taken depending on the result of the test.

Patent Owner disagrees that the “verify” limitation should be associated with the “in response to” limitations, and argues that “Petitioner erroneously conflates the claimed verification of the validity of ‘license data’ with the separately claimed conditional responses based, instead, on whether or not the ‘device identity’ is presently ‘on a record.’” Prelim. Resp. 19. Patent Owner (*id.* at 20) argues that the ’960 patent’s specification supports its position, quoting it at length, which we also reproduce here:

Typically the device 50 requesting authorization collects license related information 10 and unique device identifying information

11, compiles the collected information into a communication and sends it to the authorization authority 55. Upon receipt of this communication from the device 50, the license authority 55 checks that the license information is valid (step 13). If the request fails, an authorization is disallowed (step 14) and the device based software is sent a message to this effect. In practice this may involve further action by the device based software to notify the user of the failure to authorize and then either terminate the software or allow the software to continue in some form of trial mode or the like.

If the request for authorization 12 includes license information/data that is valid, the license information checking process (at step 13) will pass and the requesting device[']s unique identity information 11 is checked to see if it exists in the database of prior authorizations 15. If the device identity exists (step 16), meaning that the software has been successfully registered on the same device in the past, then according to the license terms 60 for the software a reauthorization is automatically allowed (step 17).

Ex. 1001, 4:56–5:13. Patent Owner argues that this description, and the corresponding depiction in Figure 2 (reproduced above), “expressly distinguishes the validity check (e.g., step 13) from the separate determination of whether the device identity is presently on record (e.g., step 16).” Prelim. Resp. 21.

We agree with Patent Owner that the specification is informative, although we do not reach Patent Owner’s conclusion. Patent Owner is correct that Figure 2 shows step 13 (“License Info checked”) and steps 15 and 16 (“Authorization Database consulted,” “Is device identity on record?”) as separate tests. Nevertheless, it is only the second test, corresponding to steps 15 and 16, that is based at least in part on a device identity. According to the quoted passage, a device seeking authorization to play content associated with a license sends both license information and unique device

information to an authorization authority. At step 13, “the license authority  
55 checks that the license information is valid,” but there is no description of  
including device information in this check. Ex. 1001, 4:60–62. Device  
information is checked only after step 13: “If the request for authorization 12  
includes license information/data that is valid, the license information  
checking process (at step 13) will pass and the requesting device[’]s unique  
identity information 11 is checked to see if it exists in the database of prior  
authorizations 15.” *Id.* at 5:1–5. Determining whether the unique device  
information is on record for a license, at steps 15 and 16, is a determination  
whether the license is valid for the corresponding device and is the only test  
that the specification describes as based at least in part on the unique device  
information. Thus, the test of steps 15 and 16 most closely aligns with the  
“verify” limitation. Step 13, on the other hand, is described as a separate  
validity check that does not involve the unique device information and, thus,  
does not correspond to the “verify” limitation. In short, the specification  
supports Petitioner’s view that the “verify” limitation can encompass  
checking whether unique device information is reflected in a database as  
authorized for a license.

We note that we have considered the parties’ respective expert  
declaration testimony but that both experts largely repeat the arguments of  
the respective briefs without adding to those arguments meaningfully.  
Ex. 1002 ¶¶ 110–117; Ex. 2001 ¶¶ 56–61.

Patent Owner makes a separate argument for the “verify” limitation as  
it pertains to claim 25. Specifically, Patent Owner argues that Petitioner’s  
application of the term, as applied to the “verify” limitation of claim 25,  
“would make it impossible for an *initial authorization* attempt to succeed.”

Prelim. Resp. 22. Claim 25 differs from claim 1, *inter alia*, in that, where claim 1 recites “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period,” claim 25 recites “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period *after an initial authorization of the digital product.*” According to Patent Owner, “[i]f ‘license data’ is deemed valid only upon confirmation that a ‘machine ID’ is included within a list of previously activated devices, then no initial authorization could pass as valid because there would be no previously activated device and, consequently, the list would remain empty.” Prelim Resp. 22. We, however, do not read “verify that a license data associated with the digital product is valid” to mean that the license is being “deemed valid.” Rather, it recites a test for verifying validity based in part on a device identity, the result of which is evaluated in the following two “response to” limitations of claim 25. According to claim 25, the allowed copy count is set if the device identity is not on the record, e.g., the test of the “verify” limitation is not met. Thus, we are not persuaded that Petitioner’s application of the “verify” limitation conflicts with other limitations of claim 25.

In sum, we agree with Petitioner that “verify[ing] that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the [given device/computer],” as recited in claims 1, 22, and 25, can encompass checking whether unique device information is reflected in a database as authorized for a license.

2. “*set[ting] the allowed copy count to a first upper limit for a first time period*” (claims 1, 22)

Petitioner does not propose an express construction for “set[ting] the allowed copy count to a first upper limit for a first time period” (“the ‘setting’ limitation”), as recited in claims 1 and 22. Petitioner, however, does contend that the preambles of claim 1 and 22 are not limitations. Pet. 21, 43. The preamble of claim 1 recites “[a] system for adjusting a license for a digital product over time, the license comprising at least one allowed copy count corresponding to a maximum number of devices authorized for use with the digital product.” The preamble of claim 22 similarly recites “[a] method for adjusting a license for a digital product over time, the license comprising at least one allowed copy count corresponding to a maximum number of devices authorized for use with the digital product.”

Patent Owner, in essence, contends that the “setting” limitation should be read as “adjusting the allowed copy count from at least one value to an upper limit.” Patent Owner argues that, in light of the preambles of claims 1 and 22, “the ‘allowed copy count’ variable must be temporarily ‘set’ from the ‘at least one’ value introduced in the preamble to, instead, an *adjusted* value expressly-distinguished as ‘a first upper limit,’” and that it “would be incorrect to interpret the expressly-distinguished values ‘at least one’ and ‘first upper limit’ to be one and the same.”<sup>1</sup> Prelim. Resp. 24–25. This

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<sup>1</sup> The preamble of claim 25 is not similar to that of claims 1 and 22 and Patent Owner does not propose an “adjusting” limitation for the language “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period after an initial authorization of the digital product,” as recited in claim 25.



argument depends on Patent Owner's contention that the preambles of claims 1 and 22 are both limiting and introduce a "core 'adjusting' concept" that is reflected in the bodies of claims 1 and 22, specifically, the "setting" limitation. *Id.* at 12–13. According to Patent Owner, "'adjusting' the 'allowed copy count' from one value to another, as claimed, must be understood in light of the limiting preamble language." *Id.* at 14.

"In general, a preamble is construed as a limitation if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim," but "is not limiting, however, where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention." *Symantec Corp. v. Computer Associates Int'l, Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008) (internal quotation marks and citations omitted). We are not persuaded by Patent Owner's arguments. Regardless of whether the preambles of claims 1 and 22 are limiting, Patent Owner has not explained persuasively why "adjusting," from the preambles, must be read into the body of the claims to change "set the allowed copy count to an upper limit" to "adjust the allowed copy count from at least one value to an upper limit."

Patent Owner argues that the preambles provide antecedent basis for the terms "digital product" and "allowed copy count" recited in the bodies of claims 1 and 22 and "define the 'allowed copy count' as 'corresponding to a maximum number [of] devices authorized for use with the digital product'" and "introduce that adjustable limit as having a positive value of 'at least one.'" Prelim. Resp. 13–14. We agree with Patent Owner that "the allowed copy count," recited in the body of claim 1, derives antecedent basis from "at least one allowed copy count," recited in the preamble. Nevertheless, the

preamble does not recite that the allowed copy count is “adjustable.” Rather, the language “[system/method] for adjusting a license for a digital product over time” constitutes a statement of intended purpose, and does not purport to modify any particular claim language.

Patent Owner argues that “allowed copy count” is a variable in the code executed by claim 1’s processor module that is initially set to “at least one” value, in the preamble, and adjusted to another value, “a first upper limit,” in the body of the claim. Prelim. Resp. 25. According to Patent Owner, the “setting” limitation “provides the condition upon which the adjustable variable ‘allowed copy count’ must be temporarily ‘set’ from the positive ‘at least one’ value introduced in the preamble to, instead, an *adjusted* value expressly-distinguished as ‘a first upper limit.’” *Id.* at 14. Patent Owner acknowledges that “the bodies of Claims 1 and 22 do not recite the ‘allowed copy count’ is conditionally ‘set’ to be the same ‘at least one’ value introduced in the preamble,” but argues that “while the name of the variable ‘allowed copy count’ relies on antecedent basis from the preamble, the temporarily-adjusted value for that variable (expressed as ‘a first upper limit’) does not.” *Id.* at 25. Dr. DiEullis largely repeats these arguments in his testimony. Ex. 2001 ¶¶ 66–67. Patent Owner’s argument is not persuasive as it, without sufficient textual support in the claim, attempts to transform the preamble’s introduction of an allowed copy count into an additional, unrecited step directed by the executable code.

Patent Owner further argues that dependent claims confirm its position. Prelim. Resp. 25–26. For example, Patent Owner argues, “Claim 9, which depends from Claim 1, also uses the word ‘set’ in expressing the adjustment of the ‘allowed copy count’ from one value to

another (i.e., from a ‘first upper limit’ to a ‘second upper limit’).” *Id.* at 25. Thus, Patent Owner argues, the claims use “set” synonymously with “adjust.” *Id.* at 26. Dr. DiEulliis largely repeats this argument in his testimony. Ex. 2001 ¶¶ 68–69. We are not persuaded. Although setting the allowed copy count to a second upper limit, as recited in claim 9, may result in changing the value from the first upper limit, that, by itself, does not redefine “set” to mean “adjust.”

Patent Owner also argues that the language in the body of claim 1, “for a first time period,” is a “temporal qualification” and that once this time period expires, the allowed copy count must revert back to something.

Prelim. Resp. 26. According to Patent Owner:

Because the “first upper limit” has only a finite duration, it follows that upon expiration of the “first time period” the “first upper limit” no longer controls and, consequently, the “allowed copy count” readjusts (e.g., back to the “at least one” value referenced in the preamble or to some other value instead, such as the “second upper limit” recited in certain dependent claims).

*Id.* Nevertheless, we do not see sufficient support in the claim language or the specification for inferring that setting the allowed copy count to a first upper limit requires adjusting the allowed copy count from an initial value merely because the first time period could expire. Claim 1 itself does not recite what must happen when the first time period expires.

Patent Owner argues that the specification of the ’960 patent supports its position. Prelim. Resp. 26–27 (citing Ex. 1001, 3:48–4:2, 6:34–35). None of the cited passages, however, describes setting an allowed copy count to an initial “at least one” value and later setting the allowed copy count by “adjusting” it to a new value. Thus, Patent Owner’s arguments are inapposite.

Finally, Patent Owner argues that the prosecution history of the '960 patent supports its position. Specifically, Patent Owner argues that “[a]pplicant successfully distinguished the claimed ‘cause-and-effect relationship’ from art that teaches, instead, that its ‘limit is established prior to [i.e., *not in response to*] determining whether a terminal identifier is recognized as being present on the terminal identifier list.” Prelim. Resp. 28 (quoting Ex. 1005, 32) (underlining in original, brackets and italics Patent Owner’s). Patent Owner’s argument is not persuasive, because the cited prosecution history was not addressing the impact of the preambles of the claims on the “setting” limitation. Rather, the applicant focused on the additional claim language “in response to the device identity not being on the record,” preceding the “setting” limitation in the body of the claim that became claim 1, and argued that this limitation must be read along with the “setting” limitation. Ex. 1005, 32. The applicant did not argue that the “setting” limitation must be read in conjunction with the preamble or that the preamble otherwise imposed a limitation on what became claim 1. Thus, the prosecution history does not support Patent Owner’s argument.

In sum, we are not persuaded that the preamble of claim 1, the intrinsic evidence, or expert testimony establishes that “set[ting] the allowed copy count to an upper limit” must be read as “adjust[ing] the allowed copy count from at least one value to an upper limit.”

*B. Asserted Grounds of Unpatentability*

To anticipate, a reference must “show all of the limitations of the claims arranged or combined in the same way as recited in the claims.” *Net*

*MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008);  
*accord In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” We resolve the question of obviousness on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

*1. Alleged Anticipation of Claims 1–5, 7–10, 12–14, 16–18, 22–25 by DeMello*

Petitioner contends that claims 1–5, 7–10, 12–14, 16–18, and 22–25 are anticipated by DeMello. Pet. 21. For the reasons given below, Petitioner has demonstrated a reasonable likelihood that it would prevail on this ground.

*a. Overview of DeMello*

DeMello describes a server architecture for a digital rights management system. Ex. 1003, Abstract. Figure 4, reproduced below, illustrates an example:

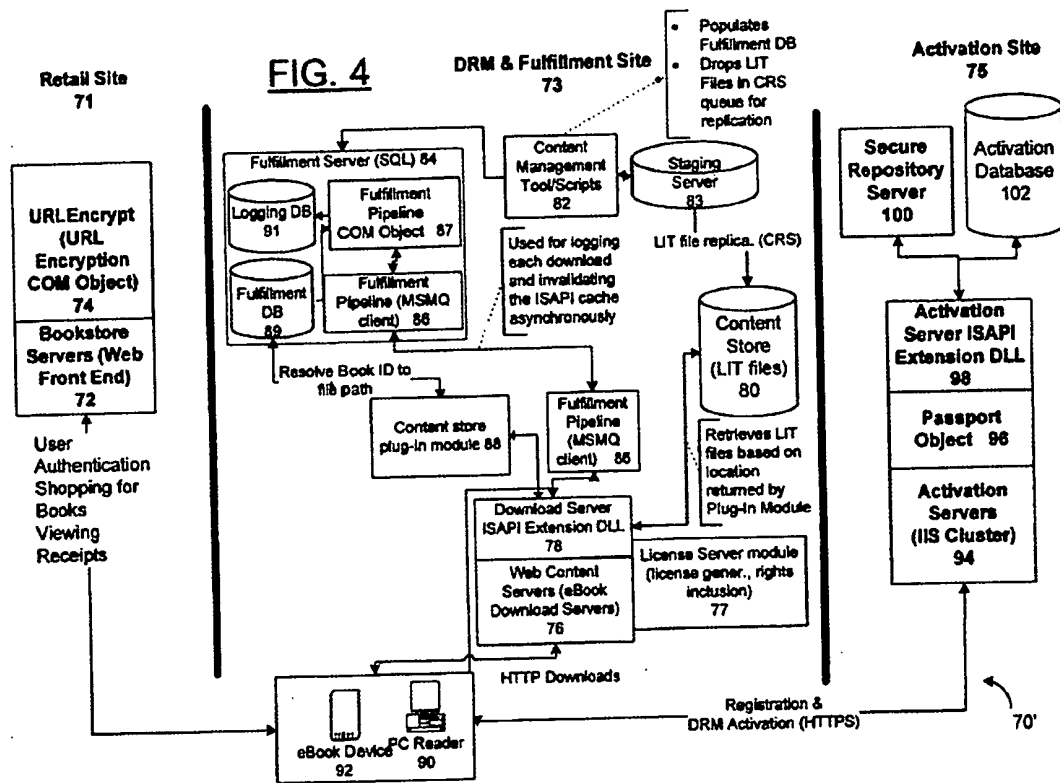


Figure 4 is a block diagram of a server architecture implementing aspects of a digital rights management system. *Id.* at 4:26–28. Bookstore servers 72 associated with retail site 71 are network servers that host a commercial website that allows users to shop for and purchase eBook titles. *Id.* at 10:66–11:8. Download server ISAPI Extension 78 and its sub-component, license server module 77, validates each download request, seals copies of eBooks, requests licenses for copies of eBooks, and returns eBook titles to end users. *Id.* at 11:26–34, 11:46–51. Activation servers 94 of activation site 75 provide each client reader (eBook device 92 and PC Reader 90) with a secure repository and an activation certificate that associate the activated readers with an online persona, e.g., a Microsoft Passport ID. *Id.* at 13:14–29.

The process of activating a reader in Figure 4 is illustrated in Figure 8, reproduced below:

FIG. 8

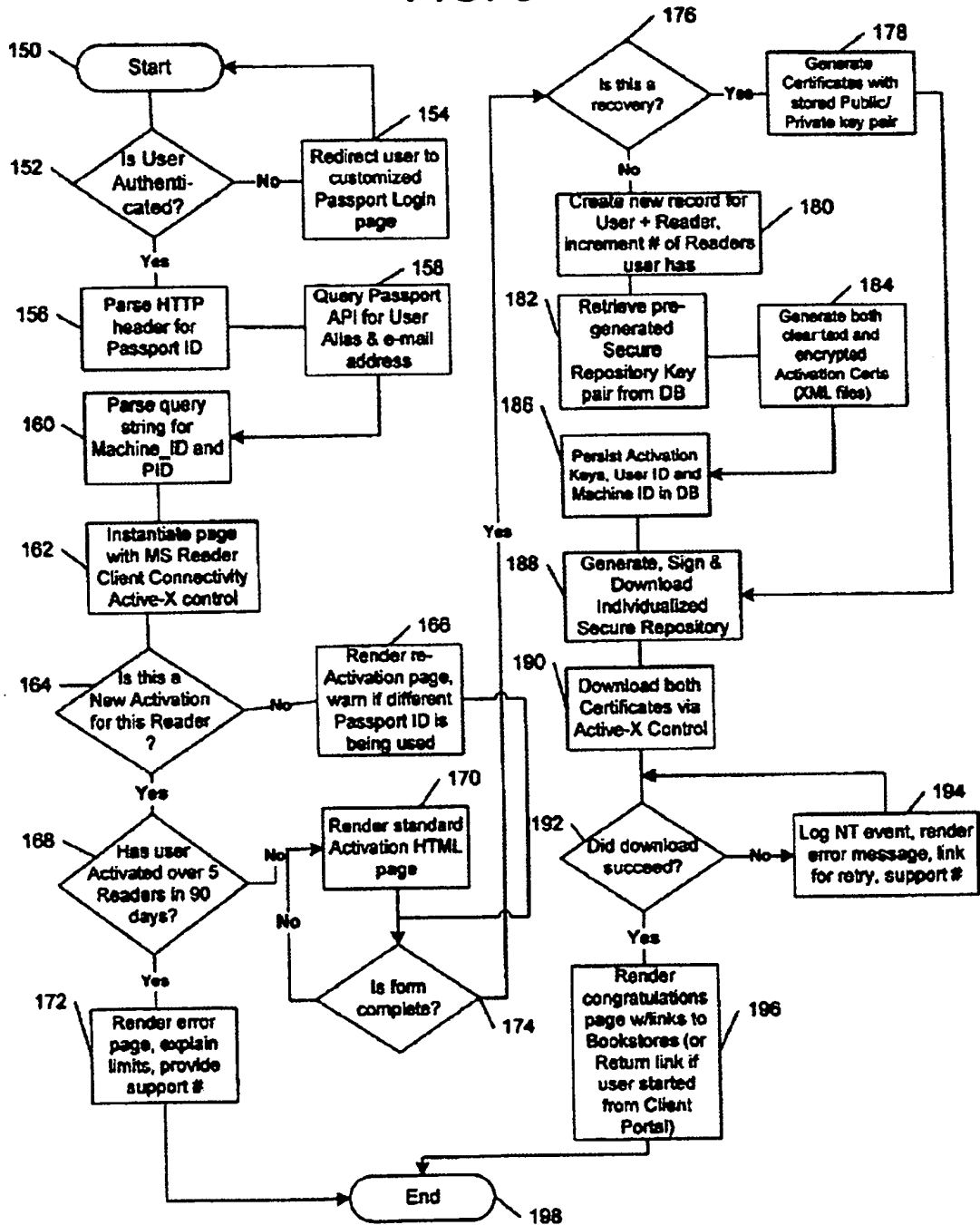


Figure 8 is a flow diagram of a client reader activation process. *Id.* at 4:39–41. To start the process, a client reader (alternately referred to as a reader client) connects to activation servers 94, and the user of the client reader is prompted to log in using Microsoft Passport credentials. *Id.* at 22:33–39 (steps 150, 152). After the Passport credentials are authenticated, activation servers 94 upload from the client a unique hardware ID (e.g., derived from hardware components on the user’s computing device that uniquely identify the device) and determine if the client reader has been activated previously or if, instead, the user is requesting a new activation. *Id.* at 22:44–53 (steps 156–164).

DeMello describes having a limit to the number of devices activated for the most secure licenses associated with a Passport ID. In Figure 8, users are limited to five activations within 90 days of the first activation of a reader. *Id.* at 22:59–66. “The limit on activations may also allow for additional activations as time passes—e.g., one additional activation for each 90 day period after the first 90 days, up to a limit of 10 total activations.” *Id.* at 23:4–8.

In the case of a new activation, if the user already has activated the maximum number of readers, an error message is rendered. *Id.* at 22:54–58 (steps 168, 172). Otherwise, the user fills out and returns an activation form, a new record is created for the user and reader, the number of readers activated for the Passport account is incremented, a secure repository key pair is retrieved from a database, activation certificates are generated, and the activation keys, user ID, and machine ID are persisted in a database. *Id.* at 23:11–25 (steps 170, 174–186). Activation servers 94 then generate, digitally sign, and download to the client reader an individualized secure



repository executable tied to the uploaded machine ID and an activation certificate tied to the user's Passport ID. *Id.* at 23:49–56 (steps 188, 190). The user then is informed that activation of the client reader is complete. *Id.* at 23:66–24:2 (step 196).

*b. Claims 1, 22, and 25*

Claim 1 recites “[a] system for adjusting a license for a digital product over time” that includes a processor and executable code for performing various functions of activating a digital license for a device; claim 22 recites “[a] method for adjusting a license for a digital product over time,” and includes steps substantially similar to the functions of claim 1's executable code; claim 25 recites “[a] computer program product” with “a non-transitory computer readable medium” with code for causing a computer to perform functions similar to those of claim 1. Petitioner's and Patent Owner's arguments regarding these three claims are largely the same. We treat claim 1 as representative except where noted below.

Claim 1 recites “a communication module for receiving a request for authorization to use the digital product from a given device.” Petitioner contends that DeMello's client reader 90 or 92 is “a given device” and that activation servers 94 receive a request for authorization to use an eBook, a digital product, from the client reader. Pet. 23–24. Petitioner argues that, because the client reader communicates a request to activation servers 94, as indicated by the captioned arrow connecting client reader 90/92 with activation servers 94, activation servers 94 include “a communication module” for receiving the requests. *Id.* at 24–25. As to “a processor module in operative communication with the communication module,” as recited in

claim 1, Petitioner points to DeMello's processing unit 21 (shown in Figure 2 as part of a "general purpose computing device in the form of a conventional personal computer or network server") and activation servers 94, which Petitioner contends necessarily include a processor in communication with a communication module. *Id.* at 25. Regarding "a memory module in operative communication with the processor module and comprising executable code for the processor module," as recited in claim 1, Petitioner argues that processing unit 21 communicates with memory such as hard drive 27 and RAM 25 and further argues that, for activation servers 94 to perform the steps shown in Figure 8, their processor must be in active communication with a memory containing code that the processor can execute. *Id.* at 26. Petitioner's evidence supports findings that DeMello discloses these aspects of claim 1 and the corresponding limitations of claims 22 and 25.

Regarding executable code for the processor module to "verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the given device," as recited in claim 1 and similarly recited in claims 22 and 25, Petitioner contends that DeMello describes a client reader associated with a user ID seeking activation uploading to activation servers 94 a unique hardware ID derived from hardware components on the client reader, and the activation servers 94 checking, when the activation request is made, whether a machine ID derived from the unique hardware ID is on a list of activations for the user ID. Pet. 27-28. Citing Dr. Rubin's declaration testimony, Petitioner argues that DeMello's use of descriptors such as "unique hardware ID" and "unique machine ID" signify generating device

identifiers by sampling physical parameters. *Id.* at 28 (citing Ex. 1002 ¶¶ 113–116).

Regarding executable code for the processor module to, “in response to the device identity already being on a record, allow the digital product to be used on the given device,” as recited in claim 1, Petitioner argues that this is disclosed by DeMello’s description of reactivating a client reader when the client reader is on the list of previous activations corresponding to the user ID. Pet. 28–29. In particular, Petitioner points to Figure 8 of DeMello, steps 176 (determining that the request is for recovery), 178, 188, 190, and 192 (generating and downloading to the client reader the proper certificates to activate the eBook), and 196 (informing the user of the client device of successful activation). *Id.* at 29 (citing Ex. 1003, 23:45–24:2).

As to executable code for the processor module to, “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period, the allowed copy count corresponding to a maximum number of devices authorized to use the digital product,” recited in claim 1, Petitioner points to DeMello’s description of handling a request for a new activation. *Id.* at 30–31. In particular, if activation servers 94 determine that the client reader is not on the list of activated devices (step 164), the process of Figure 8 proceeds to step 168 (“Has user Activated over 5 Readers in 90 days?”). Ex. 1003, 22:51–56. According to DeMello, “In the example of FIG. 8, users are limited to five activations within 90 days after the first activation of the reader.” *Id.* at 22:64–66. Focusing on the language of step 168 “after the first activation of the reader,” Petitioner argues that “[a]s the date of first activation is unknown until it occurs, DeMello’s teaching that the first time period begins on the date of first

activation requires the device limit to be set for the first time period at the time of first activation” and that “[t]he determination that the first device is not on record is the event that triggers the initial setting of the device authorization limit to five devices (i.e., the upper limit of the allowed copy count) for an initial time period.” Pet. 30–31. We agree with Petitioner that DeMello’s description of determining whether a number of devices have been activated “after the first activation of the read” supports a finding that DeMello discloses setting the limit of step 168 “in response to the device identity not being on the record,” as recited in claim 1, at least for the first device to seek activation.<sup>2</sup>

Patent Owner argues that DeMello does not disclose executable code for a processor module to “verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the given device,” as recited in claim 1, and the corresponding limitations of claims 22 and 25. As explained in detail in our discussion of claim construction in Section II.A.1 above, Patent Owner argues that Petitioner improperly reads claim 1’s “verify” and two “in response to” limitations as part of the same test, where they ought to be read as a validity check and separate determination of whether a device

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<sup>2</sup> As noted above, claim 25 differs from claims 1 and 22 in that it recites “in response to the device identity not being on the record, set the allowed copy count to a first upper limit *for a first time period after an initial authorization of the digital product.*” As to this aspect of claim 25, Petitioner cites to DeMello’s description of a limit on activations for a time period of the first 90 days following a first activation. Pet. 47–48 (citing Ex. 1003, 2:60–67, 14:33–40, 24:55–63). We agree with Petitioner that this description supports a finding that DeMello discloses this aspect of claim 25.

identity is on record. Prelim. Resp. 19–22. As explained in Section II.A.1 above, we are not persuaded by Patent Owner’s arguments and, instead, preliminarily determine that the “verify” limitation can encompass checking whether unique device information is reflected in a database as authorized for a license. We agree with Petitioner that this is disclosed in DeMello, for example in the description of steps 160–164 of Figure 8. Ex. 1003, 22:46–53.

Patent Owner further contends that DeMello does not disclose executable code for a processor module to, “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period,” as recited in claim 1 and similarly recited in claim 22. Prelim. Resp. 23–31. Patent Owner does not advance this argument for the corresponding limitation of claim 25. As explained in detail in our discussion of claim construction in Section II.A.2 above, Patent Owner argues that “set the allowed copy count to a first upper limit” requires adjusting the allowed copy count from at least one value to an upper limit. Under this proposed framework, Patent Owner argues that Petitioner “consciously ignored” the alleged “adjusting” limitations in its analysis of DeMello and that the Petition’s evidence of an initial setting of a device authorization limit to five is insufficient to show adjusting that limit. Prelim. Resp. 28–31.

As explained in Section II.A.2 above, we are not persuaded by Patent Owner’s arguments and, instead, preliminarily determine that “set[ting] the allowed copy count to an upper limit” does not require adjusting the allowed copy count from at least one value to an upper limit. On this record, DeMello’s description of setting a number of activations within 90 days after

the first activation of a reader to five discloses “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period, the allowed copy count corresponding to a maximum number of devices authorized to use the digital product,” as recited in claim 1 and similarly recited in claims 22 and 25.

As to the limitations “calculate a device count corresponding to total number of devices already authorized for use with the digital product” and “when the calculated device count is less than the first upper limit, allow the digital product to be used on the given device,” as recited in claim 1, Petitioner points to DeMello’s description of determining whether an activation is new for the client reader, checking whether the user ID has already activated more than five readers in 90 days and, if not, beginning the activation process (DeMello’s Figure 8, steps 164, 168, 170, 180, 182). Pet. 32. Petitioner’s evidence supports findings that DeMello discloses these aspects of claim 1 and the corresponding limitations of claims 22 and 25.

On this record, Petitioner has demonstrated a reasonable likelihood that it would prevail with respect to claims 1, 22, and 25 as anticipated by DeMello.

*c. Claims 2–5, 8–10, 13, 14, 17, 18, 23, and 24*

Claims 2–5, 8–10, 13, 14, 17, and 18 depend from claim 1. Claims 23 and 24 depend from claim 22. We have considered Petitioner’s showing as to these dependent claims. *See* Pet. 33–42, 45. Patent Owner does not present separate argument as to these claims. On this record, Petitioner has demonstrated a reasonable likelihood that it would prevail with respect to claims 2–5, 8–10, 13, 14, 17, 18, 23, and 24 as anticipated by DeMello.

*d. Claims 7, 12, and 16*

Claim 7 depends from claim 1 directly and recites “wherein the processor module is adapted to, in response to the calculated device count equaling the first upper limit, send a warning regarding the allowed copy count to the given device.” Claims 12 and 16 depend from claim 1 indirectly and include similar recitations, with claim 12 reciting “the second upper limit” introduced in claim 9 and claim 16 reciting “the third upper limit” introduced in claim 14.

DeMello describes the following, relied upon by Petitioner (Pet. 36–37):

If it is determined that this is a new activation at step 164, then the process proceeds to step 168 to determine whether an activation limit has been reached. If the limit has been reached, then an error message is rendered at step 172, preferably including a support telephone number.

Ex. 1003, 22:54–58. Petitioner characterizes DeMello as disclosing that “the error message issues in response to two conditions being satisfied: (1) the calculated device count equaling the first upper limit; and (2) a request arriving from a new device that is not on record and would cause the limit to be exceeded.” Pet. 37. According to Petitioner, “[t]his is exactly how Claim 7 of the ’960 Patent operates.” *Id.*

Claim 1 recites (brackets added to reflect Petitioner’s annotations of the claim):

- [1g] calculate a device count corresponding to total number of devices already authorized for use with the digital product; and
- [1h] when the calculated device count is less than the first upper limit, allow the digital product to be used on the given device.

As can be seen from this language, Petitioner is correct that “[i]n Claim 1, from which Claim 7 depends, step 1[g], calculating the device count (corresponding to the total number of devices *already* authorized), occurs *before* a new device (i.e., a device whose device identity is not already on the record) is allowed access at the final step, 1[h].” Pet. 37. Read in the context of claim 1, the condition of claim 7 “the calculated device count equaling the first upper limit” refers to the device count calculated before the newly authorized device is authorized. Thus, as Petitioner notes, the newly authorized device equaling the first upper limit is not the condition that triggers the warning of claim 7. Rather, it is the device count caused by the previously authorized device. We agree with Petitioner that this is how DeMello describes its technique. Claims 12 and 16 recite similar limitations for the “second upper limit” and “third upper limit.”

On this record, Petitioner has demonstrated a reasonable likelihood that it would prevail with respect to claims 7, 12, and 16 as anticipated by DeMello.

*2. Alleged Obviousness of Claims 6, 7, 11, 12, 15, and 16 over DeMello*

Petitioner contends that claims 6, 7, 11, 12, 15, and 16 would have been obvious over DeMello. Pet. 48. For the reasons given below, Petitioner has demonstrated a reasonable likelihood that it would prevail on this ground as to claims 6, 11, and 15.



*a. Claims 6, 11, and 15*

Claim 6 depends from claim 5 and recites “wherein the defined number of days comprises six days since the initial authorization, and wherein the first upper limit comprises five authorized devices.” Claim 11 recites a defined number of days of thirty-one and a corresponding second upper limit of seven devices. Claim 15 recites a third upper limit of eleven devices. Petitioner contends that the ’960 patent describes specific device limits and time periods as merely exemplary and does not attach any particular utility to the device limits and time periods recited in claims 6, 11, and 15. Pet. 48–49, 51. According to the ’960 patent,

It is noted that the various numbers used to describe the embodiments herein, such as, for example, the allowed copy counts, the maximum number of devices authorized for use, the upper limit on the number of devices for a given time period, or the like, are purely exemplary, and that other numbers, data, values, or algorithms may be used in lieu of the exemplary numbers herein.

Ex. 1001, 4:4:35–41.

As Petitioner points out (Pet. 49), DeMello also describes its particular time periods and device limits as “merely exemplary,” and that “any limit on activations may be used without departing from the spirit and scope of the invention.” Ex. 1003, 23:8–10.

We have considered Patent Owner’s arguments to the contrary (Prelim. Resp. 31–34), but we agree with Petitioner that implementing the particular limits of claims 6, 11, and 15 would have been simple and obvious design choices.

*b. Claims 7, 12, and 16*

Petitioner advances this challenge “[t]o the extent that the Board finds that Claim 7 requires sending a warning immediately when the number of authorized devices equals the device limit.” Pet. 50. We do not understand claim 7 to have such a limitation. Accordingly, we do not reach whether it would have been obvious.

*3. Alleged Obviousness of Claims 1–25 over DeMello and Staruiala*

Petitioner contends that claims 1–25 would have been obvious over DeMello and Staruiala. Pet. 52. For the reasons given below, Petitioner has demonstrated a reasonable likelihood that it would prevail on this ground.

*a. Overview of Staruiala*

Staruiala describes a system for obtaining unique fingerprints from computer equipment. Ex. 1004, Abstract. According to Staruiala, “in the manufacturing process of any device, there are tolerable imperfections introduced. These are differences that do not compromise the functionality of the device so long as component performance lies within certain bounds.” *Id.* at 4. Staruiala explains that “[i]t is possible, in principle, to differentiate between systems through the analysis of their individual responses to identical stimuli.” *Id.* at 5. Staruiala describes various techniques for creating fingerprints based on the unique responses individual components and systems of computer hardware give to known stimuli. *Id.* at 8–11.

Staruiala also describes a “challenge-response system” in which a system sends a log-on request to another system, which responds with a

token. The first system hashes a user's password with the challenge and includes it in a response to the second system. *Id.* at 11–12. “To individualize a specific user, explicit and intrinsic private uniqueness can be combined with a user's password or passphrase for a hash-based challenge-response or zero knowledge system. The combination of the user's passphrase and the computer's identification will suffice to track and identify a particular user.” *Id.* at 12. According to Staruiala, “[t]he concept can be applied to scaled down (or minimal) devices and be used in copyright protection schemes,” and “can be extended up to identify and authenticate networks (Figure 4) of computers or to device copyright protection schemes for software.” *Id.* at 13.

*b. Claims 1–18 and 22–25*

As to claims 1–18 and 22–25, Petitioner proposes combining DeMello with Staruiala if we should find that DeMello does not, by itself, disclose “verify that a license data associated with the digital product is valid based at least in part on a device identity generated by *sampling physical parameters of the given device*,” as recited in claim 1 (emphasis added) and similarly recited in claims 22 and 25. As explained above, Petitioner's evidence supports a finding that DeMello alone discloses this limitation. Nevertheless, as the Federal Circuit has stated, “[i]t is well settled that anticipation is the epitome of obviousness.” *In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002) (internal quotation marks and citations omitted). Thus, because Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claims 1–5, 7–10, 12–14, 16–18, and 22–25 are anticipated by DeMello and claims 6, 11, and 15 would have been

obvious over DeMello, Petitioner also has demonstrated a reasonable likelihood that it would prevail in showing that claims 1–18 and 22–25 would have been obvious over DeMello and Staruiala.

Petitioner has articulated reasons to combine the teachings of DeMello and Staruiala. Specifically, relying on the Rubin Declaration, Petitioner argues that Staruiala provides a detailed teaching of how to generate a unique hardware ID, such as that described in DeMello. Pet. 55 (citing Ex. 1002 ¶¶ 194–195). Petitioner also argues that Staruiala provides express reasons to combine with digital rights management systems such as DeMello, including that

Such an identification method is highly desirable for authenticating remote access providers. Copyright infringement could be prevented by authenticating the system on which music is being played, videos are being displayed, and software is being executed using a unique identifier based on the physical characteristics of the system. *Any system providing use on a restricted basis can benefit from the security provided by unique identifiers based on physical device properties.*

*Id.* at 55–56 (quoting Ex. 1004, 1 (emphasis Petitioner’s)). As we note above, Staruiala states that its “concept can be applied to scaled down (or minimal) devices and be used in copyright protection schemes,” and “can be extended up to identify and authenticate networks (Figure 4) of computers or to device copyright protection schemes for software.” Ex. 1004, 13. We are persuaded that Petitioner’s reasons to combine have rational underpinning.

*c. Claims 19, 20, and 21*

Claims 19, 20, and 21 each depend from claim 18. Claim 19 adds “wherein the unique device identifying information comprises at least one

user-configurable parameter and at least one non-user-configurable parameter of the given device,” claim 20 adds “wherein the device identity is generated by utilizing at least one irreversible transformation of the at least one user-configurable and the at least one non-user-configurable parameters of the given device,” and claim 21 adds “wherein the device identity is generated by utilizing a cryptographic hash function on the at least one user-configurable and the at least one non-user configurable parameters of the given device.”

Regarding claim 19, Petitioner argues that Staruiala teaches that unique identifiers based on both non-user configurable information, such as latency and imperfections in system components, can be combined with user-configurable information such as user passwords. Pet. 58–59. As to claim 20, Petitioner contends that Staruiala teaches subjecting the user-configurable information and non-user-configurable information to a secure hash function, which Dr. Rubin testifies is an irreversible transformation. *Id.* at 59–60 (citing Ex. 1002 ¶ 211). Regarding claim 21, Petitioner similarly points to Staruiala’s description of subjecting the information to a secure hash function, which Petitioner contends corresponds to the “cryptographic hash function” of claim 21. *Id.* at 61. As explained above, Petitioner has provided reasons, with rational underpinning, to combine the teachings of DeMello and Staruiala.

On this record, Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claims 19–21 would have been obvious over DeMello and Staruiala.

### III. CONCLUSION

Petitioner has established a reasonable likelihood that claims 1–25 are unpatentable.

### IV. ORDER

For the reasons given, it is:

ORDERED that *inter partes* review is instituted on the following grounds:

Claims 1–5, 7–10, 12–14, 16–18, and 22–25, under 35 U.S.C. § 102(b), as anticipated by DeMello;

Claims 6, 11, and 15, under 35 U.S.C. § 103(a), as obvious over DeMello; and

Claims 1–25, under 35 U.S.C. § 103(a), as obvious over DeMello and Staruiala;

FURTHER ORDERED that the trial is limited to the grounds identified above, and no other ground is authorized; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of U.S. Patent No. 8,566,960 B2 is hereby instituted commencing on the entry date of this Decision, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

IPR2017-00948  
Patent 8,566,960 B2

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMAZON.COM, INC., AMAZON DIGITAL SERVICES, INC.,  
AMAZON FULFILLMENT SERVICES, INC., HULU, LLC,  
and NETFLIX, INC,  
Petitioner,

v.

UNILOC LUXEMBOURG S.A.,  
Patent Owner.

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Case IPR2017-00948  
Patent 8,566,960 B2

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Before DAVID C. MCKONE, BARBARA A. PARVIS, and  
MICHELLE N. WORMMEESTER, *Administrative Patent Judges*.

MCKONE, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73



## I. INTRODUCTION

### *A. Background*

Amazon.com, Inc., Amazon Digital Services, Inc., Amazon Fulfillment Services, Inc., Hulu, LLC, And Netflix, Inc. (collectively “Petitioner”) filed a Petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims 1–25 of U.S. Patent No. 8,566,960 B2 (Ex. 1001, “the ’960 patent”). Uniloc Luxembourg S.A. (“Patent Owner”) filed a Preliminary Response (Paper 9, “Prelim. Resp.”).

Pursuant to 35 U.S.C. § 314, in our Institution Decision (Paper 10, “Dec.”), we instituted this proceeding as to claims 1–25. Dec. 34.

Patent Owner filed a Patent Owner’s Response (Paper 15, “PO Resp.”), and Petitioner filed a Reply to the Patent Owner’s Response (Paper 18, “Reply”).

Patent Owner also filed a Contingent Motion to Amend, seeking to replace claims 1, 22, and 25 with substitute claims 26, 27, and 28 if claims 1, 22, and 25 are ruled unpatentable. (Paper 17, “Mot. to Amend,” 1). Petitioner filed an Opposition to the Motion to Amend (Paper 19, “Opp. to Mot. to Amend”), and Patent Owner filed a Reply supporting its Motion to Amend (Paper 24, “Mot. to Amend Reply”).

Petitioner relies on the Declarations of Aviel Rubin, Ph.D. (Ex. 1002, “Rubin Decl.”; Ex. 1031, “Supp. Rubin Decl.”). Patent Owner relies on the Declaration of Val DiEuliis, Ph.D. (Ex. 2001, “DiEuliis Decl.”).

We have jurisdiction under 35 U.S.C. § 6. This Decision is a final written decision under 35 U.S.C. § 318(a) as to the patentability of claims 1–25 and substitute claims 26–28. Based on the record before us, Petitioner

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has proved, by a preponderance of the evidence, that claims 1–8, 18–22, and 25 are unpatentable, but not claims 9–17, 23, and 24. We deny Patent Owner’s Motion to Amend as to substitute claims 26–28.

*B. Related Matters*

The parties indicate that the ’960 patent has been asserted in several lawsuits in the United States District Court for the Eastern District of Texas. Pet. 2–3; Paper 6, 2. The ’960 patent also was the subject of *Unified Patents Inc. v. Uniloc USA, Inc.*, Case IPR2016-01271 (PTAB). Pet. 3.

*C. Evidence Relied Upon*

Petitioner relies on the following prior art:

Ex. 1003 (“DeMello”)	US 7,047,411 B1	May 16, 2006
Ex. 1004 (“Staruiala,”)	IE 02/0429	Nov. 27, 2002
Ex. 1026 (“Hu”)	US 7,752,139 B2	July 6, 2010

*D. The Instituted Grounds*

We instituted on the following grounds of unpatentability (Dec. 34) and Petitioner challenges Patent Owner’s proposed substitute claims on the following grounds of unpatentability (Opp. to Mot. to Amend 11–12):

Reference(s)	Basis	Claims Challenged
DeMello	§ 102(b)	1–5, 7–10, 12–14, 16–18, and 22–25

DeMello	§ 103(a)	6, 7, 11, 12, 15, and 16 <sup>1</sup>
DeMello and Staruiala	§ 103(a)	1–25
DeMello and Hu	§ 103(a)	26–28

*E. The '960 Patent*

The '960 patent describes techniques for monitoring and adjusting software usage under software licenses. Ex. 1001, 1:16–20. The '960 patent discusses problems with existing software licensing schemes, including that “consumers of software have normal patterns of use that include the installation and use of digital products on multiple devices” and that “computers are also bought, sold and replaced so over time maybe two or three times this number of computers may be used by the user over time with a legitimate need to install and use the software on every computer.” *Id.* at 1:31–41. The '960 patent addresses these problems with “an improved technique for allowing for a changing number of device installations on a per license basis over time.” *Id.* at 1:67–2:2.

Figure 2, reproduced below, illustrates an example:

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<sup>1</sup> After the Supreme Court’s decision in *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018), we modified our Institution Decision to include review of claims 7, 12, and 16 as obvious over DeMello.

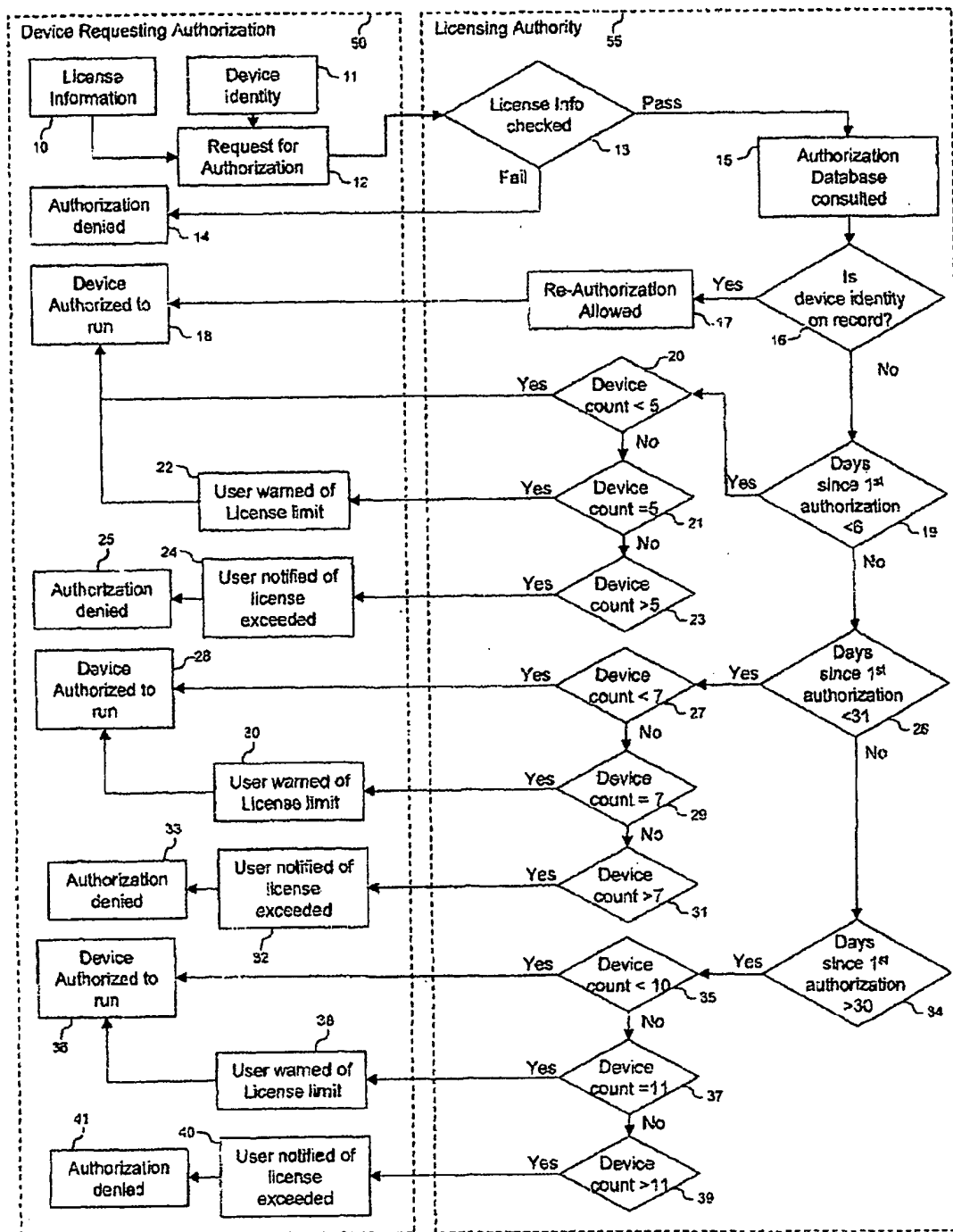


Figure 2

Figure 2 is a flowchart for an approach to adjusting a license for a digital product. *Id.* at 3:20–21. In Figure 2, device 50 requests authorization from

licensing authority 55 (e.g., a publisher or distributor) to use a copy of a software license. *Id.* at 4:50–55.

Device 50 gathers information about itself, including license related information 10 and unique device identifying information 11, and sends a request for authorization 12 to licensing authority 55. *Id.* at 4:56–59.

Licensing authority 55 checks whether the requesting device's unique identifying information 11 exists in its database of prior authorizations 15 and, if so, reauthorizes device 50 and allows the software to run on the device. *Id.* at 5:1–12 (steps 13–18).

If unique identifying information 11 is not in its database of prior authorizations 15, and if the request comes within the first five days of the licensing period, licensing authority 55 determines a device count of the number of successful authorizations for new devices that have been allowed and, if the device count is fewer than a device count limit of five, licensing authority 55 sends device 50 a message allowing the software to be used. *Id.* at 5:13–26 (steps 18–19). If the device count is equal to five, licensing authority 55 can send a message to device 50 allowing the device to run, but also informing the user that the limit on available devices has been reached and that subsequent requests may be denied. *Id.* at 5:26–32 (step 22). If the device count is greater than five (step 23), licensing authority 55 sends a message to device 50 denying authorization (step 24). *Id.* at 5:33–40.

If request 12 comes between six and thirty-one days from the first successful authorization, licensing authority 55 performs similar tests, this time with a device count limit of seven. *Id.* at 5:41–60 (steps 19–33). Likewise, if request 12 comes after thirty-one days, licensing authority 55

performs similar tests with a device count limit of eleven. *Id.* at 5:61–6:7 (steps 34–41).

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A system for adjusting a license for a digital product over time, the license comprising at least one allowed copy count corresponding to a maximum number of devices authorized for use with the digital product, comprising:
  - a communication module for receiving a request for authorization to use the digital product from a given device;
  - a processor module in operative communication with the communication module;
  - a memory module in operative communication with the processor module and comprising executable code for the processor module to:
    - verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the given device;
    - in response to the device identity already being on a record, allow the digital product to be used on the given device;
    - in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period, the allowed copy count corresponding to a maximum number of devices authorized to use the digital product;
    - calculate a device count corresponding to total number of devices already authorized for use with the digital product; and

when the calculated device count is less than the first upper limit, allow the digital product to be used on the given device.

## II. ANALYSIS

### A. *Claim Construction*

We interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–45 (2016). In applying a broadest reasonable construction, claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

In the Institution Decision, we preliminarily construed “verify[ing] that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the [given device/computer],” as recited in claims 1, 22, and 25, as broad enough to encompass checking whether unique device information is reflected in a database as authorized for a license. Dec. 11. We also preliminarily determined that “set[ting] the allowed copy count to a first upper limit,” as recited in claims 1 and 22, does not require “adjust[ing] the allowed copy count from at least one value to an upper limit.” *Id.* at 16. The parties continue to dispute the constructions of these terms. PO Resp. 9–19; Reply 3–13. We address each below.

1. *“verify[ing] that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the [given device/computer]” (claims 1, 22, 25)*

Claim 1 recites “verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the given device” (“the ‘verify’ limitation”). That recitation is followed by two clauses, “in response to the device identity already being on a record, allow the digital product to be used on the given device” and “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period.” Independent claims 22 and 25 include similar recitations.

Petitioner argues in favor of our construction, contending that the “verify” limitation sets forth a test and that the two “in response to” limitations set forth alternative actions taken depending on the result of the test. Pet. 27–28; Reply 8–9. Patent Owner argues that the “verify” limitation is “expressly distinguished” from the conditional “in response to” limitations, and argues that our Institution Decision impermissibly conflates the two. PO Resp. 14.

Patent Owner argues that the claim language itself defines the validity verification as being directed to the “license data” and that the “device identity” is expressly distinguished. PO Resp. 14. As Petitioner points out (Reply 9), however, claim 1 expressly recites that the license data is verified as valid “based at least in part on a device identity.” Thus, the claim language expressly links the verification of validity to a device identity.

Patent Owner further argues that the claim language emphasizes a distinction between the validity verification (“verify” limitation) and the



record check (“in response to” limitations). PO Resp. 14–15. Petitioner responds that “the claim language recites only a single inquiry based upon the device identity” and that “[t]he subsequent two claim limitations recite what is done ‘in response to’ the outcome of that inquiry – allow access if the device is on the record and, if not on the record, allow access if the device count is less than the current device limit.” Reply 10. We agree with Petitioner. Although the “in response to” limitations address whether “the device identity” is “on a record,” and do not expressly tie a determination of validity to the presence or absence of a record, the structure of the claim strongly suggests such a relationship. As Petitioner observes, claim 1 recites only one test, verifying that a license data is valid, and that test is based at least in part on a device identity. The two immediately following “in response to” limitations specify the results of a test based on “the device identity.” The most logical reading of the claim language is a test in which a license is determined to be valid or not based on the presence or absence of a record of the device identity in a database.

Patent Owner further notes that the “verify” limitation of claim 1 is based “at least in part” on a device identity and the “in response to” limitations do not recite “the same ‘at least in part’ qualification,” and argues that “[t]his explicit distinction confirms the validity verification and the record check are not one and the same.” PO Resp. 15. We agree with Petitioner (Reply 11), however, that a test that depends entirely on the device identity (Patent Owner’s characterization of the “in response to” limitations) is a test based at least in part on the device identity.

Patent Owner argues that “the specification confirms that ‘license data’ may be verified as valid regardless whether a corresponding ‘device

identity' is already on the record." PO Resp. 14. Patent Owner points to Figure 2 of the '960 patent (reproduced above), and argues that step 13 is shown as a test separate from the test of steps 15 and 16. *Id.* at 15.

According to Patent Owner, if license data is found to be invalid at step 13, there would be no need to determine separately whether the device identity is on record. *Id.* (citing Ex. 1001, 4:62–64). According to Patent Owner, a contrary reading "would lead to the unreasonable conclusion that in those instances where the *license data* is not valid, ostensibly because the 'device identity' is not 'on the record,' the digital product would nevertheless be allowed to execute on that device." *Id.*

Patent Owner argues that step 13 is described as a validity check while step 15 is not. *Id.* at 16–17. Petitioner responds that the '960 patent does not describe step 13 as having an inquiry based in part on the device identity. Reply 10. According to Patent Owner, the description of step 13 does not preclude verifying license data validity based at least in part on a device identity, and, indeed, describes it. PO Resp. 17. Specifically, Patent Owner argues that the specification describes compiling identifying information 11 and license related information 10 together in request for authorization 12 and that the validity check of step 13 checks both types of information. *Id.* The '960 patent explains:

Typically the device 50 requesting authorization collects license related information 10 and unique device identifying information 11, compiles the collected information into a communication and sends it to the authorization authority 55. Upon receipt of this communication from the device 50, the license authority 55 checks that *the license information* is valid (step 13).

Ex. 1001, 4:56–62 (emphasis added). Patent Owner argues that “the license information” in this passage, because it is not designated with reference number 10, refers to both “license related information 10” and “identifying information 11.” PO Resp. 17.

Patent Owner’s argument is not persuasive. We find that “the license information,” although it is not followed by “10,” nevertheless refers to “license related information 10.” Indeed, in Figure 2, the ’960 patent refers to item 10 as “License Information.” Moreover, the ’960 patent explains, “[i]f the request for authorization 12 includes license information/data that is valid, the license information checking process (at step 13) will pass and the requesting device[’]s unique identity information 11 is checked to see if it exists in the database of prior authorizations 15.” Ex. 1001, 5:1–5. Thus, the ’960 patent expressly describes step 13 as checking license information 10 and steps 15 and 16 as checking device unique identity information 11. Patent Owner points to no persuasive evidence that step 13 checks device identity information.

The “verify” limitation of claim 1 expressly recites a check based “at least in part on a device identity.” The specification describes such a check as occurring at steps 15 and 16, not step 13. Steps 15 and 16 check whether the device identity is on record and, in response to that check, allow a digital product to be used on a device (steps 17, 18) or start a process to authorize the device. *Id.* at 5:1–9, 5:13–18. Although steps 15 and 16 are not expressly described as a verification of validity, steps 15 and 16, not step 13, logically track and most closely align with the language of claim 1’s “verify” and “in response to” limitations. Thus, the specification supports Petitioner’s view that the “verify” limitation can encompass checking

whether unique device information is reflected in a database as authorized for a license.

Finally, Patent Owner contends that “[t]he specification is replete with examples of using unique device information to perform validity checks, independent of whether the device is already on record” and “identifies a myriad of ways in which ‘device fingerprinting’ may be performed to generate and transmit unique device identities, which then may be compared to expected results to confirm validity.” PO Resp. 18 (citing Ex. 1001, 9:20–10:67). We have analyzed the portion of the specification identified by Patent Owner and agree with Petitioner (Reply 12–13) that it describes several techniques for generating a device identity, but does not describe examples of performing validity checks based on device identity. Ex. 1001, 9:20–10:67. Therefore, Patent Owner’s argument is not persuasive.

In sum, upon consideration of the complete record, including the claim language itself and the description in the specification, we agree with Petitioner that “verify[ing] that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the [given device/computer],” as recited in claims 1, 22, and 25, can encompass checking whether unique device information is reflected in a database as authorized for a license.

2. *“set[ting] the allowed copy count to a first upper limit for a first time period” (claims 1, 22)*

The preamble of claim 1 recites “[a] system for adjusting a license for a digital product over time, the license comprising at least one allowed copy count corresponding to a maximum number of devices authorized for use

with the digital product.” Claim 1 further recites “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period, the allowed copy count corresponding to a maximum number of devices authorized to use the digital product.”

Claim 22 includes similar recitations.<sup>2</sup> The parties’ dispute is whether “set the allowed copy count to a first upper limit for a first time period” requires adjusting the allowed copy count from a first value to a first upper limit (as Patent Owner proposes) or, alternatively, is broad enough to encompass setting the allowed copy count for the first time (as Petitioner proposes). In our Institution Decision, we preliminarily agreed with Petitioner. Dec. 16.

At the institution stage, the parties disputed whether the preamble of claim 1 is limiting, with Patent Owner arguing that it is and Petitioner arguing that it is not. *Id.* at 12–13. Patent Owner now argues that “[t]he preambles [of claims 1 and 22] expressly state that the claimed system and method are both directed to ‘adjusting’ the license in terms of its allowed copy count, which the preambles expressly define.” PO Resp. 9. We explained in the Institution Decision, however, that even if the preamble is limiting (e.g., by virtue of it providing antecedent basis (“at least one allowed copy count”) for “set the allowed copy count”), the language “[a] system for adjusting a license for a digital product over time” constitutes a

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<sup>2</sup> The preamble of claim 25 is not similar to that of claims 1 and 22, and Patent Owner does not propose an “adjusting” limitation for the language “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period after an initial authorization of the digital product,” as recited in claim 25.

statement of intended purpose and does not purport to modify any particular claim language, such as “set the allowed copy count.” Dec. 13–14.

Patent Owner argues that our preliminary construction would vitiate the purpose of the preamble language and that, instead, “the claim limitations must be understood in light of the ‘adjusting’ context introduced in the preamble.” PO Resp. 9. However, “the mere fact that a structural term in the preamble is part of the claim does not mean that the preamble’s statement of purpose or other description is also part of the claim.” *Marrin v. Griffin*, 599 F.3d 1290, 1295 (Fed. Cir. 2010). Rather, the Federal Circuit has held that “a preamble is not limiting ‘where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.’” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997)). Thus, an intended purpose set forth in a claim preamble and the context that purpose might provide, without more, are not limiting. Moreover, as Petitioner points out, “the claimed invention could be used to adjust an allowed device limit, at least to a higher limit, thereby satisfying the intended purpose of the invention.” Reply 4.

Patent Owner next argues that “at least one allowed copy count” in the preamble of claim 1 provides antecedent basis for “set the allowed copy count” and is recited as having “a non-zero value.” PO Resp. 10. Because the “at least one allowed copy count” has a non-zero value, Patent Owner argues, “the allowed copy count,” recited later in claim 1, is not merely initialized, but adjusted from the non-zero value to a new first upper limit. *Id.* We agree with Petitioner (Reply 5), however, that the “at least one

allowed copy count” in the preamble refers to the existence of a variable for the allowed copy count, rather than a recitation that the allowed copy count is set to an initial value of “one.” Thus, claim 1 is consistent with a situation in which the first time a device identity is not found on record, the allowed copy count variable would be initialized, or set, to a first upper limit, but not adjusted from an existing value to the first upper limit.

Patent Owner contends that both experts testified that claims 1 and 22 require adjusting the allowed copy count. PO Resp. 10. Petitioner’s expert, Dr. Rubin, testifies that “Claim 22 is a method claim that consists of the same steps along with a preamble, which states that the method is used for adjusting a license for a digital product over time.” Ex. 1002 ¶ 70. Patent Owner’s expert, Dr. DiEuliis, purports to “agree with Dr. Rubin’s assessment that the preamble teaches that the system ‘is used for adjusting a license for a digital product over time.’” Ex. 2001 ¶ 45. Nevertheless, we read Dr. Rubin’s testimony as quoting the preamble of claim 22 rather than opining on the scope of claim 22. Patent Owner further argues that Dr. Rubin admitted on cross-examination that claim 1 requires “adjusting.” PO Resp. 10–11 (reproducing Ex. 2003, 19:12–20:9). This testimony, however, is consistent with Petitioner’s view that claim 1 encompasses adjusting the allowed copy count, but does not require it.

Patent Owner argues that dependent claims, e.g., claim 9, confirm that claim 1 requires an adjustment of the allowed copy count from one value to another. PO Resp. 11. Claim 9 depends from claim 1 and recites, *inter alia*, “in response to the device identity not being on the record, after the first time period has expired, set the allowed copy count to a second upper limit for a

second time period.” Patent Owner argues that, because “set” in claim 9 is used to mean “adjust,” it must carry that meaning in claim 1. *Id.* at 10–11.

Patent Owner further argues that the specification supports its construction by describing embodiments in which device limits of a license are temporarily and automatically adjusted. *Id.* at 12–13 (citing Ex. 1001, 3:48–4:2, 6:34–35). The passage cited by Patent Owner does not provide any meaningful discussion of setting or adjusting an allowed copy count and, thus, is not persuasive. In contrast, Petitioner cites to an example in which a “device limit is *initially set* to five.” Reply 4 (quoting Ex. 1001, 4:5–9). Thus, the specification supports Petitioner’s argument rather than Patent Owner’s. In any case, the specification does not support limiting “set” to “adjust” as Patent Owner proposes.

Finally, Patent Owner argues that Petitioner argued in District Court that the claims require adjusting a device limit from one level to another and that this argument constitutes a binding party admission. PO Resp. 13–14 (citing Ex. 2002, 12). Exhibit 2002 is Petitioner’s Motion for Attorneys’ Fees, filed in District Court, following successfully obtaining dismissal on grounds that the asserted claims did not recite statutory subject matter under 35 U.S.C. § 101. In attempting to characterize Patent Owner’s defense to the Motion to Dismiss as unreasonable, Petitioner argued, *inter alia*:

Uniloc’s primary argument in support of the patentability of its claims was baseless and intended solely to obfuscate the *Alice* analysis. Uniloc repeatedly mischaracterized its claimed invention as one that “adjusted” a device limit by “newly setting” that device limit for a “first time period.” *See, e.g.*, Dkt. No. 21 at 5-6; Dkt. No. 35 at 5. No reasonable litigant would argue that a limit is “adjusted” when it is “newly set” for the first time. Instead, as disclosed in the ’960 patent,



“adjusting” in the context of the alleged invention refers to changing the device limit from one level (for example five devices for the first five days) to another level (seven devices for the next 25 days) (’960 patent at 4:27–31), which was only recited in some of the dependent claims (*see, e.g., id.* at 12:12:42—51 (claim 9)).

Ex. 2002, 12.

We disagree with Patent Owner’s characterization of Petitioner’s arguments. Instead, Petitioner argued that Patent Owner unreasonably contended that its claims (other than dependent claims such as claim 9), required adjusting a device limit from one level to another. In any case, Petitioner’s District Court arguments do not change our view of the language of claims 1 and 22 and the description in the specification.

In sum, upon consideration of the complete record, including the claim language itself, the description in the specification, and the expert testimony, we agree with Petitioner that “set[ting] the allowed copy count to a first upper limit” may encompass, but does not require, “adjust[ing] the allowed copy count from at least one value to an upper limit.”

*B. Anticipation by DeMello*

Petitioner contends that claims 1–5, 7–10, 12–14, 16–18, and 22–25 are anticipated by DeMello. Pet. 21. To anticipate, a reference must “show all of the limitations of the claims arranged or combined in the same way as recited in the claims.” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008); *accord In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990). As explained below, we agree that claims 1–5, 7, 8, 18, 22, and 25 are anticipated, but not claims 9, 10, 12–14, 16, 17, 23, and 24.

1. Overview of DeMello

DeMello describes a server architecture for a digital rights management system. Ex. 1003, Abstract. Figure 4, reproduced below, illustrates an example:

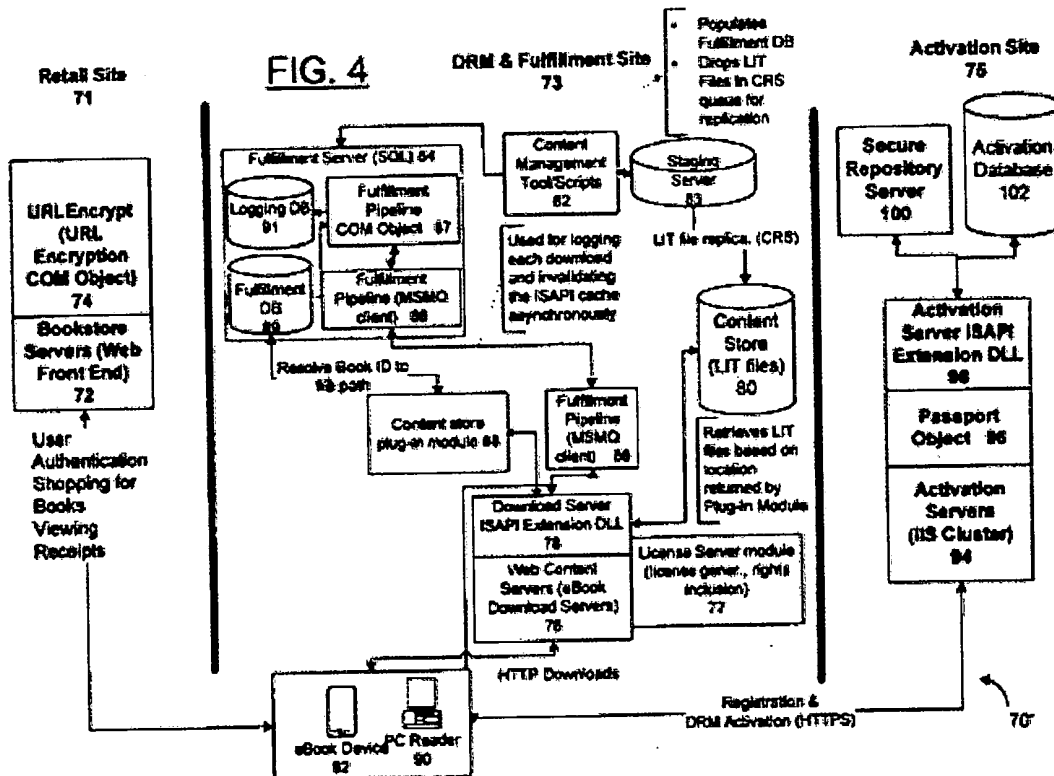


Figure 4 is a block diagram of a server architecture implementing aspects of a digital rights management system. *Id.* at 4:26–28. Bookstore servers 72 associated with retail site 71 are network servers that host a commercial website that allows users to shop for and purchase eBook titles. *Id.* at 10:66–11:8. Download server ISAPI Extension 78 and its sub-component, license server module 77, validates each download request, seals copies of eBooks, requests licenses for copies of eBooks, and returns eBook titles to end users. *Id.* at 11:26–34, 11:46–51. Activation servers 94 of activation site 75 provide each client reader (eBook device 92 and PC Reader 90) with

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a secure repository and an activation certificate that associate the activated readers with an online persona, e.g., a Microsoft Passport ID. *Id.* at 13:14–29.

The process of activating a reader in Figure 4 is illustrated in Figure 8, reproduced below:

FIG. 8

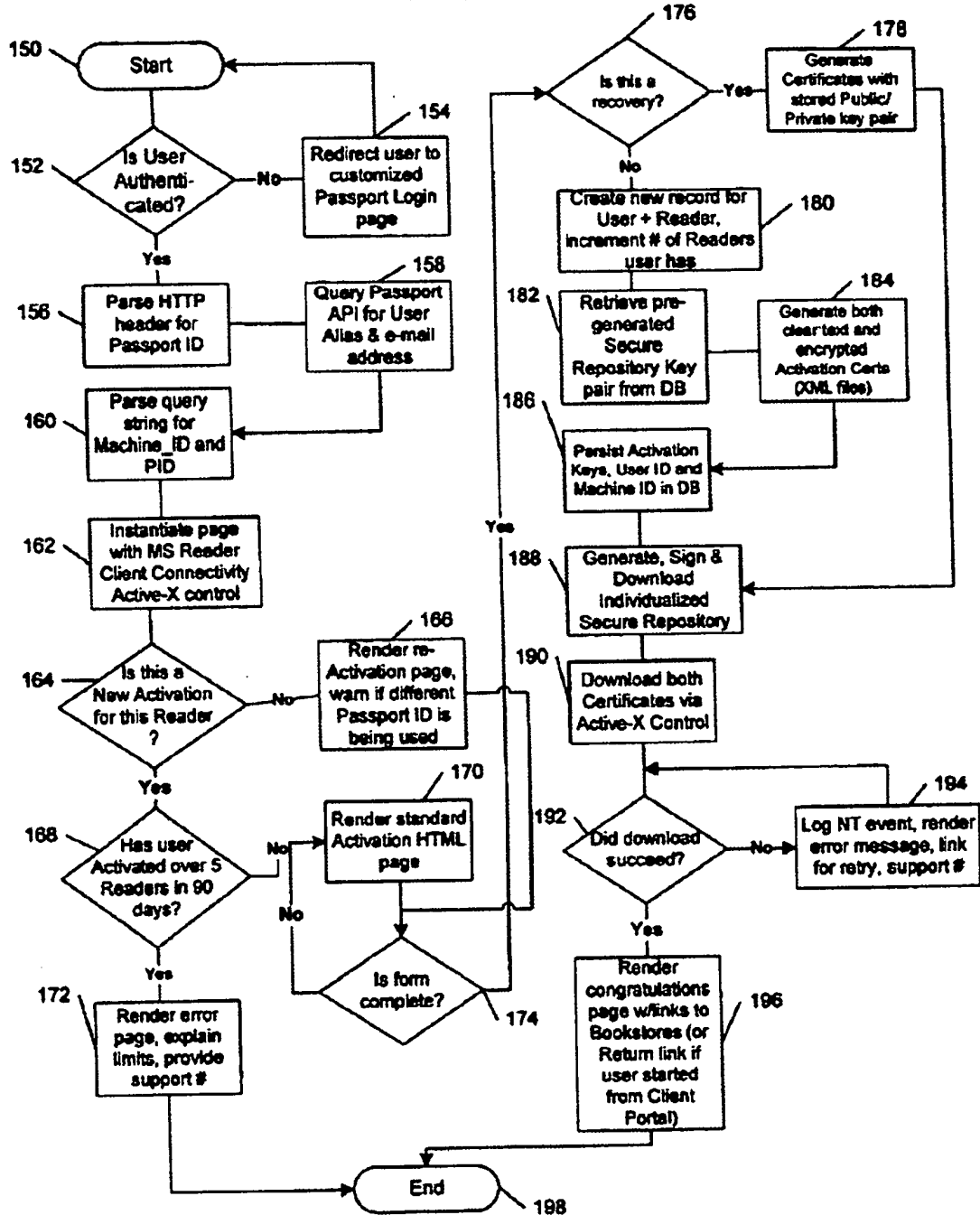


Figure 8 is a flow diagram of a client reader activation process. *Id.* at 4:39–41. To start the process, a client reader (alternately referred to as a reader

client) connects to activation servers 94, and the user of the client reader is prompted to log in using Microsoft Passport credentials. *Id.* at 22:33–39 (steps 150, 152). After the Passport credentials are authenticated, activation servers 94 upload from the client a unique hardware ID (e.g., derived from hardware components on the user’s computing device that uniquely identify the device); create a unique machine ID based on the hardware ID, and determine if the client reader has been activated previously or if, instead, the user is requesting a new activation. *Id.* at 13:62–66, 22:44–53 (steps 156–164).

DeMello describes having a limit to the number of devices activated for the most secure licenses associated with a Passport ID. In Figure 8, users are limited to five activations within 90 days of the first activation of a reader. *Id.* at 22:59–66. “The limit on activations may also allow for additional activations as time passes—e.g., one additional activation for each 90 day period after the first 90 days, up to a limit of 10 total activations.” *Id.* at 23:4–8.

In the case of a new activation, if the user already has activated the maximum number of readers, an error message is rendered. *Id.* at 22:54–58 (steps 168, 172). Otherwise, the user fills out and returns an activation form, a new record is created for the user and reader, the number of readers activated for the Passport account is incremented, a secure repository key pair is retrieved from a database, activation certificates are generated, and the activation keys, user ID, and machine ID are persisted in a database. *Id.* at 23:11–25 (steps 170, 174–186). Activation servers 94 then generate, digitally sign, and download to the client reader an individualized secure repository executable tied to the uploaded machine ID and an activation

certificate tied to the user's Passport ID. *Id.* at 23:49–56 (steps 188, 190). The user then is informed that activation of the client reader is complete. *Id.* at 23:66–24:2 (step 196).

## 2. Claims 1, 22, and 25

Claim 1 recites “[a] system for adjusting a license for a digital product over time” that includes a processor and executable code for performing various functions of activating a digital license for a device; claim 22 recites “[a] method for adjusting a license for a digital product over time,” and includes steps substantially similar to the functions of claim 1's executable code; claim 25 recites “[a] computer program product” with “a non-transitory computer readable medium” with code for causing a computer to perform functions similar to those of claim 1. Petitioner's and Patent Owner's arguments regarding these three claims are largely the same. We treat claim 1 as representative except where noted below.

Claim 1 recites “[a] system for adjusting a license for a digital product over time.” Petitioner contends that DeMello describes a system that adjusts an allowed copy count under a license for a digital product (e.g., an electronic book) over time (e.g., over 90 day periods). Pet. 23 (citing Ex. 1003, 2:60–67). Petitioner contends that DeMello's software content, such as electronic books, constitute digital products. *Id.* We agree that the '960 patent contemplates software, such as electronic books, as digital products. Ex. 1001, Abstract. As to “the license comprising at least one allowed copy count corresponding to a maximum number of devices authorized for use with the digital product,” as recited in claim 1, DeMello describes:

the number of devices that a particular persona may activate may be limited by rate and or by number (e.g., five activations within a first 90 day period, followed by an additional activation for every subsequent 90 day period, up to a maximum of ten activations), thereby preventing the unchecked proliferation of devices on which individualized content can be rendered.

Ex. 1003, 2:60–67. We find that DeMello’s limited number of activations for a persona teaches claim 1’s limitation “at least one allowed copy count corresponding to a maximum number of devices authorized for use with the digital product.”

Claim 1 further recites “a communication module for receiving a request for authorization to use the digital product from a given device.” Petitioner contends that DeMello’s client reader 90 or 92 is “a given device” and that activation servers 94 receive a request for authorization to use an eBook, a digital product, from the client reader. Pet. 23–24 (citing Ex. 1003, 13:13–35). Petitioner notes that, as part of the activation process, activation servers 94 receive a hardware ID uploaded by the client reader 90/92. *Id.* at 24 (citing Ex. 1003, 13:62–65). Petitioner argues that, because the client reader communicates a request to activation servers 94, as indicated by the captioned arrow in Figure 4 connecting client reader 90/92 with activation servers 94, activation servers 94 include “a communication module” for receiving the requests. *Id.* at 24–25. Based on this evidence, we find that DeMello discloses “a communication module for receiving a request for authorization to use the digital product from a given device.”

As to “a processor module in operative communication with the communication module,” as recited in claim 1, Petitioner points to DeMello’s processing unit 21 (shown in Figure 2 as part of a “general

purpose computing device in the form of a conventional personal computer or network server”) and activation servers 94, which Petitioner contends necessarily include a processor in communication with a communication module. *Id.* at 25 (citing Ex. 1003, 7:16–28, 7:55–60, 13:14–29, 13:62–65). Dr. Rubin testifies that “[i]n order for DeMello’s activation servers to service the requests from the user devices for access to the protected digital content, it is inherent that processors on the activation servers must be in operative communication with [a] communication [ ] module that receives such requests.” Ex. 1002 ¶ 106. Figure 2 and its accompanying description provide a general description of the system that implements DeMello’s invention and include an express disclosure of a processor. Figure 4 and its description provide a more specific description of such a system, but do not expressly recite a processor. In light of Figure 2, however, as well as Dr. Rubin’s uncontroverted testimony that the more specific system of Figure 4 would have had such a server in communication with a communication module, we find that DeMello discloses this limitation.

Regarding “a memory module in operative communication with the processor module and comprising executable code for the processor module,” as recited in claim 1, Petitioner argues that processing unit 21 communicates with memory such as hard drive 27 and RAM 25 and further argues that, for activation servers 94 to perform the steps shown in Figure 8, their processor must be in active communication with a memory containing code that the processor can execute. *Id.* at 26 (citing Ex. 1003, 7:16–28, 7:55–60, 13:14–26). Dr. Rubin testifies that “[i]t is inherent in such a process that the processor in the activation servers would be in operative communication with a memory module that contains executable code (i.e.,



an application program) that enables the processor in the activation servers to carry out those functions.” Ex. 1002 ¶ 108. In light of the descriptions of Figures 2 and 4 of DeMello, when viewed together, and along with Dr. Rubin’s uncontroverted testimony, we find that DeMello discloses this limitation.

The parties dispute whether DeMello discloses executable code for the processor to “verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the given device,” as recited in claim 1. Petitioner contends that DeMello describes a client reader associated with a user ID seeking activation uploading, to activation servers 94, a unique hardware ID derived from hardware components on the client reader, and the activation servers 94 checking, when the activation request is made, whether a machine ID derived from the unique hardware ID is on a list of activations for the user ID. Pet. 27–28.

DeMello describes authenticating a user’s Microsoft Passport credentials and a unique hardware ID of a device during the process of activating that device for the licenses associated with the Passport credentials:

Once user’s PASSPORT™ credentials are authenticated (step 156), a PASSPORT™ API is queried for the user alias and e-mail address (step 58). Thereafter, at steps 160–162, the activation servers 94 will request that the client (via the ActiveX control) upload a unique hardware ID (e.g., which, as noted above, may be derived from hardware components on the user’s computing device which substantially uniquely identify the user’s computing device). Next, it is determined at step 164 if this is a new activation for the reader (as opposed to a “recovery” of a prior activation).

If it is determined that this is a new activation at step 164, then the process proceeds to step 168 to determine whether an activation limit has been reached.

Ex. 1003, 22:44–56, Fig. 8. DeMello describes its authentication process as including checking records to determine if a device has already been authenticated:

If it is not a recovery, then a new record is created for the user and reader and the number of readers activated to that user is incremented (step 180). A pre-generated secure repository key pair is retrieved from a database (step 182) and activation certificates are also generated (step 184). The activation keys, user ID, and machine ID are persisted in a database at step 186.

...

If, at step 176, it is determined that this activation is a recovery, then (at step 178) activation certificates are generated with the information that was stored at step 186, and processing continues at step 188.

Ex. 1003, 23:19–25, 23:45–48, Fig. 8.

Petitioner argues that the Passport ID and the unique hardware ID are “license data associated with the digital product” that are verified to be valid in DeMello’s authentication process. Pet. 27–28. Reply 13–14. Petitioner further contends that the unique hardware ID is generated by sampling physical parameters of the device to be authenticated. Pet. 27–28. As shown above, DeMello describes the unique hardware ID as “derived from hardware components on the user’s computing device.” Ex. 1003, 22:48–50. Specifically, DeMello’s device receives the hardware ID and creates from it a unique machine ID: “The activation server ISAPI Extension DLL 98 carries out tasks associated with the activation process on the front-end activation servers, including receiving a hardware ID uploaded by the reader client, creating a unique machine ID based on the hardware ID.” 13:62–66.

Citing Dr. Rubin's declaration testimony, Petitioner argues that DeMello's use of descriptors such as "unique hardware ID" and "unique machine ID" signify generating device identifiers by sampling physical parameters. Pet. 28 (citing Ex. 1002 ¶¶ 113–116). On this evidence, we find that the machine ID and hardware ID are "generated by sampling physical parameters of the given device," as recited in claim 1.

Patent Owner contends that DeMello's Passport ID is not a device identity generated by sampling physical parameters of a given device. PO Resp. 21. DeMello describes the Passport ID as follows:

The secure repository and activation certificate associates the activated reader with an online persona (e.g., a MICROSOFT® PASSPORT™ ID) to ensure that users will be able read their rightfully acquired titles on all instances of readers that they own or have activated to their persona (but not on non-activated readers, or readers not activated for that persona)—assuming they activate their readers using the same user ID and password every time.

Ex. 1003, 13:21–29. Although the Passport ID itself is not generated based on parameters of a device, Petitioner does not rely on the Passport ID alone as license data associated with the digital product. Rather, Petitioner cites both the Passport ID and hardware ID/machine ID. Reply 21–22.

Relying on its proposed claim construction, Patent Owner next argues that Petitioner improperly conflates the claimed verification of validity with a separately claimed check on whether the device identity is on record. PO Resp. 21–22. As explained in Section II.A.1 above, however, the "verify" limitation is broad enough to encompass checking whether unique device information is reflected in a database as authorized for a license. Thus, Patent Owner's argument is not persuasive.

On the complete record, we find that DeMello's authentication, which checks a Passport ID and machine ID against stored records to authenticate a device, discloses executable code for the processor to "verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the given device," as recited in claim 1 and similarly recited in claim 22.

Patent Owner makes an additional argument for the similar limitation of claim 25. PO Resp. 22–23. Claim 25 recites "code for causing a computer to, in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period *after an initial authorization of the digital product*" (italics emphasizing a difference between claim 25 and claims 1 and 22). In IPR2016-01271, we preliminarily construed this term to mean "a time period that begins at an initial authorization of the digital product and extending for a duration thereafter," a construction neither party contests here. Pet. 16; PO Resp. 20. Patent Owner argues that, under Petitioner's construction of the "verify" limitation, it would be impossible for DeMello's initial authorization attempt to succeed because "[i]t is axiomatic that a list of *previously activated* devices will be empty for the first authorization attempt under a given license" and "no initial authorization could pass as valid because there would be no previously activated device and, consequently, the list would remain empty." PO Resp. 23.

We do not understand Petitioner to argue that DeMello only deems license data valid upon confirmation that a machine ID is included within a list of previously activated devices, nor is that what DeMello describes. Rather, if a machine ID is not in the database, DeMello authenticates the

machine ID and adds it to the database if the user has not already activated a maximum number of devices. Ex. 1003, 23:11–25. Patent Owner does not explain persuasively why this would be different for DeMello’s initial activation. For the reasons given for claims 1 and 22, above, we find that DeMello discloses “code for causing a computer to verify that a license data associated with the digital product is valid based at least in part on a device identity generated by sampling physical parameters of the computer,” as recited in claim 25.

Regarding executable code for the processor module to, “in response to the device identity already being on a record, allow the digital product to be used on the given device,” as recited in claim 1, Petitioner argues that this is disclosed by DeMello’s description of a recovery process that involves reactivating a client reader when the client reader is on the list of previous activations corresponding to the user ID. Pet. 28–29. We agree. As DeMello explains, with reference to Figure 8, “[t]he activation keys, user ID, and machine ID are persisted in a database at step 186.” Ex. 1003, 23:23–25. In the case of a “recovery,” “(at step 178) activation certificates are generated with the information that was stored at step 186,” “[a]t step 188, the activation servers generate and digitally sign an individualized secure repository executable (tied to the uploaded machined ID) and an activation certificate (tied to the user’s PASSPORT™ ID),” and the executable and certificate are downloaded to the client (steps 188, 190). *Id.* at 23:45–54. If the download to the client is successful, the user is informed that the device is activated. *Id.* at 23:64–24:2. Thus, if the device identity is on record (e.g., user ID and machine ID persisted in the database), the device is activated and the user is informed as such.

The parties dispute whether DeMello discloses “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period, the allowed copy count corresponding to a maximum number of devices authorized to use the digital product,” recited in claim 1 and similarly recited in claim 22. Petitioner points to DeMello’s description of handling a request for a new activation. *Id.* at 30–31. In particular, if activation servers 94 determine that the client reader is not on the list of activated devices (step 164), the process of Figure 8 proceeds to step 168 (“Has user Activated over 5 Readers in 90 days?”). Ex. 1003, 22:51–56. According to DeMello, “[i]n the example of FIG. 8, users are limited to five activations within 90 days after the first activation of the reader.” *Id.* at 22:64–66. Focusing on the language of step 168 “after the first activation of the reader,” Petitioner argues that “[a]s the date of first activation is unknown until it occurs, DeMello’s teaching that the first time period begins on the date of first activation requires the device limit to be set for the first time period at the time of first activation” and that “[t]he determination that the first device is not on record is the event that triggers the initial setting of the device authorization limit to five devices (i.e., the upper limit of the allowed copy count) for an initial time period.” Pet. 30–31.

Patent Owner argues that, in light of claim 1’s preamble, this “setting” limitation requires adjusting the allowed copy count from an existing value to a first upper limit. PO Resp. 25–26. Patent Owner argues that “the Petition applies the same erroneous construction by arguing the independent claims do not comprehend *any* conditional ‘adjusting’ whatsoever.” *Id.* at 26. Here, Patent Owner essentially reiterates its claim construction

argument, discussed in Section II.A.2 above. As explained in Section II.A.2 above, however, we construe “set[ting] the allowed copy count to a first upper limit” to not require adjusting the allowed copy count from at least one value to an upper limit. Rather, setting the allowed copy count to an upper limit in the first instance would satisfy this limitation. Thus, we find that DeMello’s description of setting a number of activations within 90 days after the first activation of a reader to five activations discloses “in response to the device identity not being on the record, set the allowed copy count to a first upper limit for a first time period, the allowed copy count corresponding to a maximum number of devices authorized to use the digital product,” as recited in claim 1 and similarly recited in claim 22.

Patent Owner further argues that “[t]he conditional nature of the ‘adjusting’ was successfully emphasized as a point of novelty during prosecution.” PO Resp. 27. During prosecution, the applicant argued

*The first sub-element (in response to the device identity not being on the record) sets up a condition that is required for the execution of the second sub-element (set the allowed copy count to a first upper limit for a first time period). The cause-and-effect relationship of these two sub-elements cannot be ignored in the obviousness inquiry.*

Ex. 1005, 32. Patent Owner argues that the applicant distinguished art such as DeMello, which Patent Owner characterizes as “only adjusts limits according to a present schedule.” PO Resp. 27.

In reply, Petitioner argues that, consistent with claim 5 (“wherein the first time period comprises a defined number of days after an initial authorization of the digital product”), claim 1 is broad enough to encompass setting the first limit at the time of the initial authorization. Reply 18. Reading claims 1 and 5 together, we agree with Petitioner. As Petitioner

points out (Reply 17–18), DeMello’s first upper limit is set upon the first activation (“In the example of FIG. 8, users are limited to five activations within 90 days after the first activation of the reader.”). Ex. 1003, 22:64–66. Thus, Patent Owner’s argument is not persuasive.

As noted above, claim 25 differs from claims 1 and 22 in that it recites “in response to the device identity not being on the record, set the allowed copy count to a first upper limit *for a first time period after an initial authorization of the digital product.*” As to this aspect of claim 25, Petitioner cites to DeMello’s description of a limit on activations for a time period of the first 90 days following a first activation. Pet. 47–48 (citing Ex. 1003, 2:60–67, 14:33–40, 24:55–63). As noted above, DeMello describes limiting users to five activations within 90 days after the first activation of a reader, Ex. 1003, 22:64–66, which is a time period after an initial authorization of a digital product. Thus, we find that DeMello discloses this additional recitation of claim 25. We note that Patent Owner does not contest this limitation of claim 25. PO Resp. 25 (presenting its “set the allowed copy count” argument for claims 1 and 22, but not claim 25).

As to the limitations “calculate a device count corresponding to total number of devices already authorized for use with the digital product” and “when the calculated device count is less than the first upper limit, allow the digital product to be used on the given device,” as recited in claim 1, Petitioner points to DeMello’s description of determining whether an activation is new for the client reader, checking whether the user ID has already activated more than five readers in 90 days and, if not, beginning the activation process. Pet. 32 (citing DeMello’s Figure 8, steps 164, 168, 170,



180, 182 and corresponding description). As to these steps, DeMello, in describing an activation of a new device, explains:

If it is determined that this is a new activation at step 164, then the process proceeds to step 168 to determine whether an activation limit has been reached. . . . In accordance with a feature of the present invention, users may be limited as to the number of activations they can perform, and/or the rate at which they can perform them (i.e., how many different readers they can activate to read level 5 titles purchased under a given persona). In the example of FIG. 8, users are limited to five activations within 90 days after the first activation of the reader.

. . .

If the user has not activated over five readers within the first 90 days (or reached a different applicable activation limit), an activation page is rendered on the user's device (step 170). . . . If it is not a recovery, then a new record is created for the user and reader and the number of readers activated to that user is incremented (step 180).

Ex. 1003, 22:54–66, 23:11–21. We find that this example discloses “calculate a device count corresponding to total number of devices already authorized for use with the digital product” and “when the calculated device count is less than the first upper limit, allow the digital product to be used on the given device,” as recited in claim 1, and the corresponding limitations of claims 22 and 25. We note that Patent Owner does not contest these limitations of claims 1, 22, and 25.

For the foregoing reasons, on the complete record, we find that DeMello discloses each limitation of claims 1, 22, and 25, arranged as in those claims. Thus, Petitioner has proved, by a preponderance of the evidence, that DeMello anticipates claims 1, 22, and 25.

*3. Claims 2–5, 8, and 18*

Claim 2 depends from claim 1 and recites “wherein the digital product comprises software.” DeMello lists “software executables” as an example of a digital product. Ex. 1003, 4:52–56. We find that DeMello discloses this limitation.

Claim 3 depends from claim 1 and recites “wherein the license data comprises information that may be used to verify whether the license for the digital product is valid.” As noted above, DeMello describes a Passport ID as part of the information authenticated when a device is activated for a license. Ex. 1003, 16:32–35 (“PASSPORT ID—The persona ID associated with the user, which is provided by the user during activation. This field is later used by the content server to compare with the activation ID in the activation certificate.”), 23:49–52 (“At step 188, the activation servers generate and digitally sign an individualized secure repository executable (tied to the uploaded machine ID) and an activation certificate (tied to the user’s PASSPORT™ ID).”). Based on this evidence, we find that DeMello discloses the additional limitation of claim 3.

Claim 4 depends from claim 1 and recites “wherein the record comprises an authorization database.” DeMello describes storing device activations in activation database 102, which we find is an authorization database. Ex. 1003, 25:1–4 (“The activation servers 94 enforce the limit on activations by storing, in the activation database 102, a list of all activations that a given PASSPORT™ ID has requested, along with their date stamps.”). Based on this evidence, we find that DeMello discloses the additional limitation of claim 4.

Claim 5 depends from claim 1 and recites “wherein the first time period comprises a defined number of days after an initial authorization of the digital product.” As explained above, DeMello describes an example in which a limit of five activations is set for a period of 90 days following the date of the first activation. Ex. 1003, 14:33–40. Based on this evidence, we find that DeMello discloses the additional limitation of claim 5.

Claim 8 depends from claim 1 and recites “wherein the processor module is adapted to, in response to the calculated device count exceeding the first upper limit, deny the request for authorization.” We find this disclosed in steps 168 and 172 of DeMello’s Figure 8, in which, when an activation limit is reached, the user is presented with an error message. Ex. 1003, 22:54–59.

Claim 18 depends from claim 1 and recites “wherein the device identity comprises unique device identifying information.” As noted above, DeMello describes a “unique machine ID based on the hardware ID” that “may be derived from hardware components on the user’s computing device which substantially uniquely identify the user’s computing device,” which we find to be unique device identifying information. Ex. 1003, 13:64–66, 22:48–51.

We note that Patent Owner does not present separate argument as to these claims.

On the complete record, Petitioner has proved, by a preponderance of the evidence, that claims 2–5, 8, and 18 are anticipated by DeMello.

4. *Claims 9, 10, 12–14, 16, 17, 23, and 24*

Claim 9 depends from claim 1 and adds, *inter alia*, “in response to the device identity not being on the record, after the first time period has expired, set the allowed copy count to a second upper limit for a second time period.” Claim 23 depends from claim 22 and adds a substantially similar limitation. Claim 14 depends from claim 9 and adds, *inter alia*, “in response to the device identity not being on the record, after the second time period has expired, set the allowed copy count to a third upper limit.” Claim 24 depends from claim 23 and adds a substantially similar limitation.

As to claim 9, Petitioner contends “DeMello teaches that, after the first time period has expired and a device requests access but is not on record, the system determines and applies a second device limit for second time period.” Pet. 39 (citing Ex. 1003, 24:60–63). In this description, DeMello states that, “[a]s time passes, the number is increased, at a suggested rate of, e.g., one additional activation every 90 days (from the date of the first Activation) until the number reaches 10.” Ex. 1003, 24:60–63. Petitioner also points to the description corresponding to step 170 of Figure 8, discussed above. Pet. 39–40 (citing Ex. 1003, 23:11–14). Here, DeMello describes a test in which, “[i]f the user has not activated over five readers within the first 90 days (or reached a different applicable activation limit), an activation page is rendered on the user’s device (step 170).” Petitioner cites the same two passages in DeMello for claims 14, 23, and 24. *Id.* at 41, 45.

Patent Owner does not challenge the allegations regarding claim 9 directly. Nevertheless, for claim 1, Patent Owner argues that DeMello describes changing activation limits on a fixed schedule and does not

disclose adjusting a copy count from one value to another in response to a device identity not being on a record. PO Resp. 26–27. Here, Patent Owner explained that, during prosecution, the applicant distinguished prior art in which an allowed copy count is established prior to determining whether a device identity is on record. *Id.* (citing Ex. 1005, 32). Rather, the applicant stressed “[t]he cause-and-effect relationship” of determining that a device identity is not on record and setting the allowed copy count. Ex. 1005, 32. As explained above, Petitioner demonstrated such a cause-and-effect relationship between DeMello’s initial device activation and setting the copy count for the first 90 day period. Thus, Patent Owner’s argument is not persuasive as to claim 1. It is pertinent to claims 9, 14, 23, and 24, however.

Claim 9 recites setting the allowed copy count to a second upper limit “in response to the device identity not being on the record.” As the applicant argued during prosecution, this “in response to” language establishes a cause-and-effect relationship. The effect, “set the allowed copy count to a second upper limit,” is caused by a determination of “the device identity not being on the record.”

To show DeMello’s copy count changing, Petitioner (Pet. 39) points to DeMello’s description that, “[a]s time passes, the number is increased, at a suggested rate of, e.g., one additional activation every 90 days (from the date of the first Activation) until the number reaches 10.” Ex. 1003, 24:60–63. The Petition attempts to equate this description to setting a copy count at the time a device requests access. Pet. 39. DeMello, however, includes no such statement explaining precisely when the copy count is set or what causes it to be set. Patent Owner’s reading (PO Resp. 26–27), that

DeMello's copy count is adjusted according to a schedule independent of a device requesting access, is as plausible as Petitioner's.

In reply, Petitioner takes issue with Patent Owner's characterization of DeMello. Specifically, Petitioner argues that, in step 164 of Figure 8, DeMello's system first checks if the device identity is on record and only then proceeds to step 168, where Petitioner contends the system determines and applies the appropriate copy count. Reply 17–18 (citing Ex. 1003, 22:54–23:8, Fig. 8). According to Petitioner, “[b]ecause the determination of what device limit to apply in step 168 is only reached if the device identity is not on record, that device limit is set in response to the device identity not being on record.” *Id.* at 18. This argument is not supported by DeMello's disclosure. Rather, DeMello describes a transition from step 164 to 168 in which it is determined whether an activation limit has been reached without any description of how or when the limit is set. Ex. 1003, 22:51–23:10.

Petitioner further argues that, by virtue of claims 5, 6, 10, and 11, the '960 patent describes a “static schedule” of “fixed intervals” at which copy counts are measured. Reply 18; Tr. 13:5–14:13. These dependent claims specify that the time periods of claims 1 and 9 comprise defined numbers of days. They do not, however, address what causes the copy count to be set. Thus, Petitioner's argument is not persuasive.

We have analyzed the portions of DeMello cited by Petitioner and considered Petitioner's corresponding arguments. Nevertheless, we find that DeMello does not disclose setting the allowed copy count to a second upper limit “in response to the device identity not being on the record,” as recited in claim 9 and similarly recited in claim 23. For the same reasons, we find

that DeMello does not disclose setting the copy count to a third upper limit “in response to the device identity not being on the record,” as recited in claim 14 and similarly recited in claim 24. Claims 10, 12, and 13 depend from claim 9 and claims 16 and 17 depend from claim 14. Petitioner’s arguments for these dependent claims do not overcome the deficiencies noted above for claims 9 and 14.

On the complete record, Petitioner has not shown, by a preponderance of the evidence, that claims 9, 10, 12–14, 16, 17, 23, and 24 are anticipated by DeMello.

#### 5. Claim 7

Claim 7 depends from claim 1 and recites “wherein the processor module is adapted to, in response to the calculated device count equaling the first upper limit, send a warning regarding the allowed copy count to the given device.”

Claim 1 recites (brackets added to reflect Petitioner’s annotations of the claim):

[1g] calculate a device count corresponding to total number of devices already authorized for use with the digital product; and

[1h] when the calculated device count is less than the first upper limit, allow the digital product to be used on the given device.

As can be seen from this language, Petitioner is correct that “[i]n Claim 1, from which Claim 7 depends, step 1[g], calculating the device count (corresponding to the total number of devices *already* authorized), occurs *before* a new device (i.e., a device whose device identity is not already on

the record) is allowed access at the final step, 1[h].” Pet. 37. Read in the context of claim 1, the condition of claim 7 “the calculated device count equaling the first upper limit” refers to the device count calculated before the newly authorized device is authorized. Thus, as Petitioner notes, the newly authorized device equaling the first upper limit is not the condition that triggers the warning of claim 7. Rather, it is the device count caused by the previously authorized device. We set forth our understanding of claim 7 in the Institution Decision (Dec. 27–28) and Patent Owner does not contest it in the Patent Owner Response.

DeMello describes the following, relied upon by Petitioner (Pet. 36–37):

If it is determined that this is a new activation at step 164, then the process proceeds to step 168 to determine whether an activation limit has been reached. If the limit has been reached, then an error message is rendered at step 172, preferably including a support telephone number.

Ex. 1003, 22:54–58. Petitioner characterizes DeMello as disclosing that “the error message issues in response to two conditions being satisfied: (1) the calculated device count equaling the first upper limit; and (2) a request arriving from a new device that is not on record and would cause the limit to be exceeded.” Pet. 37. We agree with Petitioner’s characterization of DeMello and find that DeMello discloses the additional limitation of claim 7.

Patent Owner argues that “the cited passage merely teaches that an ‘error’ message is sent informing the user that activation will not be allowed because the user has exceeded the limit,” and that this disclosure “does not anticipate the specific warning message recited in Claim 7, let alone the



particular condition upon which the warning message is sent.” PO Resp. 29–30 n.10. Claim 7’s “warning” however, is simply recited as “regarding the allowed copy count.” As shown above, DeMello sends an error message notifying a user that an activation limit has been reached, which we find is regarding an allowed copy count. As to the particular condition upon which the warning message is sent, as shown above, DeMello describes that its error message is sent upon a determination that an activation limit has been reached, which we find discloses “in response to the calculated device count equaling the first upper limit,” as recited in claim 7.

On the complete record, Petitioner has proved, by a preponderance of the evidence, that DeMello anticipates claim 7.

*C. Alleged Obviousness of Claims 6, 7, 11, 12, 15, and 16 over DeMello*

Petitioner contends that claims 6, 7, 11, 12, 15, and 16 would have been obvious over DeMello. Pet. 48. A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” We resolve the question of obviousness on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and

(4) objective evidence of nonobviousness, i.e., secondary considerations.<sup>3</sup>  
*See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Claims 11, 12, 15, and 16 depend, directly or indirectly, from claim 9, which we find not anticipated by DeMello. Petitioner's obviousness arguments as to these claims merely address the added limitations of these claims and do not remedy the deficiencies noted above for claim 9. Accordingly, Petitioner has not proved, by a preponderance of the evidence, that claims 11, 12, 15, and 16 would have been obvious over DeMello. As explained below, however, Petitioner has proved that claim 6 would have been obvious over DeMello. Petitioner's challenge to claim 7 as obvious is not persuasive, as it depends on an alternative construction of claim 7 that we do not adopt.

### *1. Level of Ordinary Skill*

Citing Dr. Rubin's testimony, Petitioner contends that a person of ordinary skill in the art "generally had [a] bachelor's degree in computer science and/or electrical engineering or comparable experience, plus at least two years of experience using DRM [digital rights management], cryptography, and content distribution or related software technology." Pet. 14 (citing Ex. 1002 ¶ 38).

Citing Dr. DiEuliis's testimony, Patent Owner argues that a skilled artisan would have had only one to two years of experience, rather than at

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<sup>3</sup> The complete record does not include allegations or evidence of objective indicia of non-obviousness.

least two years, but concedes that “the difference is inconsequential to the dispute before the Board.” PO Resp. 7 (citing Ex. 2001 ¶¶ 38–39).

Patent Owner also argues that a skilled artisan need not have work experience using DRM, cryptography, and content distribution. *Id.* (citing Ex. 2001 ¶ 40). Dr. DiEuliis bases his opinion on Dr. Rubin’s testimony that the claims do not require extensive technical knowledge to implement and that no specific techniques of DRM or encryption are disclosed or claimed. Ex. 2001 ¶ 40. This testimony of Dr. DiEuliis is contradicted by Patent Owner, who relies on other testimony from Dr. DiEuliis to argue that “[e]ven a cursory review of the multiple figures confirms that the ’960 patent teaches sophisticated algorithmic structure for practicing the claimed invention according to certain disclosed embodiments.” PO Resp. 6 (citing Ex. 2001 ¶¶ 20–32).

The ’960 patent describes its field of invention as “relat[ing] generally to managing software use, and more specifically to systems and methods to enable the monitoring and adjusting software usage under a software license.” Ex. 1001, 1:16–19. Similarly, DeMello “relates generally to the field of computing, and more particularly to the use of a server to distribute content in accordance with a digital rights management system.” Ex. 1003, 1:13–16. The disclosure of the ’960 patent and the prior art reflect a level of skill more consistent with Dr. Rubin’s testimony. Accordingly, we credit his testimony and adopt Petitioner’s proposed level of skill. Nevertheless, the parties do not argue that any issue in the case is affected by our resolution of this dispute.

2. *Differences Between the Claimed Subject Matter and the Prior Art, and Reasons to Modify*

a. *Claim 6*

Claim 6 depends from claim 5 and recites “wherein the defined number of days comprises six days since the initial authorization, and wherein the first upper limit comprises five authorized devices.”

Petitioner contends that the '960 patent describes specific device limits and time periods as merely exemplary and does not attach any particular utility to the device limits and time periods recited in claims 6, 11, and 15. Pet. 48–49, 51. According to the '960 patent,

It is noted that the various numbers used to describe the embodiments herein, such as, for example, the allowed copy counts, the maximum number of devices authorized for use, the upper limit on the number of devices for a given time period, or the like, are *purely exemplary*, and that *other numbers, data, values, or algorithms may be used in lieu of the exemplary numbers herein*.

Ex. 1001, 4:4:35–41 (emphasis added).

As Petitioner points out (Pet. 49), DeMello also describes its particular time periods and device limits as “merely exemplary,” and that “any limit on activations may be used without departing from the spirit and scope of the invention.” Ex. 1003, 23:8–10.

Patent Owner responds that Petitioner improperly relies on conclusory statements of common knowledge rather than a printed publication stating the precise number of days recited in claim 6. PO Resp. 28–29.

The Federal Circuit has cautioned that “references to ‘common sense’—whether to supply a motivation to combine or a missing limitation—cannot be used as a wholesale substitute for reasoned analysis

and evidentiary support, especially when dealing with a limitation missing from the prior art references specified.” *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1362 (Fed. Cir. 2016). That is not the case here. As explained above, both the ’960 patent and DeMello describe precise numbers of days as arbitrary and that their respective inventions contemplate other numbers. We find that it would have been reasonable for the skilled artisan to have selected six days, as recited in claim 6, in light of DeMello’s disclosure.

*b. Claim 7*

Petitioner advances an obviousness challenge to claim 7, based on DeMello, “[t]o the extent that the Board finds that Claim 7 requires sending a warning immediately when the number of authorized devices equals the device limit.” Pet. 50. As explained in the Institution Decision, we do not understand claim 7 to have such a limitation. Dec. 27–28. Accordingly, in the Institution Decision, we did not institute as to claim 7 as obvious over DeMello. Dec. 30, 34.

Nevertheless, on April 24, 2018, the Supreme Court held that a decision to institute under 35 U.S.C. § 314 may not institute on fewer than all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1369–60 (2018). Subsequently, we modified our institution decision to include review of all challenged claims and all grounds presented in the Petition. Paper 29, 2.

Petitioner’s obviousness challenge to claim 7 over DeMello is based on only an alternative construction of claim 7 that we do not adopt. See Section II.B.5 above. Thus, Petitioner has not shown, by a preponderance of

the evidence, that claim 7 would have been obvious over DeMello under the correct construction.

### *3. Conclusion of Obviousness*

As explained above, DeMello teaches each limitation of claim 6 except the precise defined number of days. Petitioner has introduced persuasive evidence that selecting six days would have been trivial and obvious. Patent Owner does not introduce objective indicia of nonobviousness. In sum, upon consideration of all the evidence, we conclude that Petitioner has proved by a preponderance of the evidence that the subject matter of claim 6 would have been obvious over DeMello.

#### *D. Alleged Obviousness of Claims 1–25 over DeMello and Staruiala*

Petitioner contends that claims 1–25 would have been obvious over DeMello and Staruiala. Pet. 52. As to claims 1–18 and 22–25, Petitioner relies on Staruiala “[s]hould Patent Owner assert, and the Board find, that ‘sampling physical parameters of the given device’ [recited in claims 1 and 22] is not taught by DeMello.” Pet. 52. As explained above, we find that DeMello discloses this limitation. Nevertheless, we evaluate below whether Staruiala also teaches this limitation (and the similar limitation of claim 25).

Petitioner does not cite to Staruiala for any other aspect of claims 1–18 and 22–25. Specifically, Petitioner does not contend that Staruiala would have remedied the deficiencies noted above for claims 9–17, 23, and 24. Thus, Petitioner has not shown, by a preponderance of the evidence, that DeMello and Staruiala would have rendered obvious claims 9–17, 23, and 24.

Petitioner also relies on Staruiala for aspects of claims 19–21. As explained below, we agree with Petitioner that these claims would have been obvious over DeMello and Staruiala.

*1. Scope and Content of the Prior Art—Overview of Staruiala*

Staruiala describes a system for obtaining unique fingerprints from computer equipment. Ex. 1004, Abstract. According to Staruiala, “in the manufacturing process of any device, there are tolerable imperfections introduced. These are differences that do not compromise the functionality of the device so long as component performance lies within certain bounds.” *Id.* at 4. Staruiala explains that “[i]t is possible, in principle, to differentiate between systems through the analysis of their individual responses to identical stimuli.” *Id.* at 5. Staruiala describes various techniques for creating fingerprints based on the unique responses individual components and systems of computer hardware give to known stimuli. *Id.* at 8–11.

Staruiala also describes a “challenge-response system” in which a system sends a log-on request to another system, which responds with a token. The first system hashes a user’s password with the challenge and includes it in a response to the second system. *Id.* at 11–12. “To individualize a specific user, explicit and intrinsic private uniqueness can be combined with a user’s password or passphrase for a hash-based challenge-response or zero knowledge system. The combination of the user’s passphrase and the computer’s identification will suffice to track and identify a particular user.” *Id.* at 12. According to Staruiala, “[t]he concept can be applied to scaled down (or minimal) devices and be used in copyright protection schemes,” and “can be extended up to identify and authenticate

networks (Figure 4) of computers or to device copyright protection schemes for software.” *Id.* at 13.

2. *Differences Between the Claimed Subject Matter and the Prior Art, and Reasons to Modify or Combine*

a. *Claims 1–8, 18, 22, and 25*

As to claims 1–8, 18, 22, and 25, Petitioner proposes combining DeMello with Staruiala if we should find that DeMello does not, by itself, disclose “verify that a license data associated with the digital product is valid based at least in part on a device identity generated *by sampling physical parameters of the given device*,” as recited in claims 1 and 22 (emphasis added) and similarly recited in claim 25. As explained above, Petitioner’s evidence supports a finding that DeMello alone discloses this limitation. Nevertheless, as the Federal Circuit has stated, “[i]t is well settled that anticipation is the epitome of obviousness.” *In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002) (internal quotation marks and citations omitted).

Petitioner has articulated reasons to combine the teachings of DeMello and Staruiala. Specifically, relying on the Rubin Declaration, Petitioner argues that Staruiala provides a detailed teaching of how to generate a unique hardware ID, such as that described in DeMello. Pet. 55 (citing Ex. 1002 ¶¶ 194–195). We credit Dr. Rubin’s uncontroverted testimony. We also find that Staruiala provides express reasons to combine with digital rights management systems such as DeMello, including that

Such an identification method is highly desirable for authenticating remote access providers. Copyright infringement could be prevented by authenticating the system on which music is being played, videos are being displayed, and software is being executed using a unique identifier based



on the physical characteristics of the system. *Any system providing use on a restricted basis can benefit from the security provided by unique identifiers based on physical device properties.*

*Id.* at 55–56 (quoting Ex. 1004, 1 (emphasis Petitioner’s)). As we note above, Staruiala states that its “concept can be applied to scaled down (or minimal) devices and be used in copyright protection schemes,” and “can be extended up to identify and authenticate networks (Figure 4) of computers or to device copyright protection schemes for software.” Ex. 1004, 13. On this evidence, we find that a skilled artisan would have had reasons to combine the teachings of DeMello and Staruiala. We note that Patent Owner does not present separate argument for Petitioner’s allegations based on Staruiala.

Thus, because Petitioner has demonstrated that claims 1–5, 7, 8, 18, 22, and 25 are anticipated by DeMello and claim 6 would have been obvious over DeMello, and also that a skilled artisan would have had reasons to combine DeMello and Staruiala, Petitioner has demonstrated by a preponderance of the evidence that these claims would have been obvious over DeMello and Staruiala.

*b. Claims 19, 20, and 21*

Claims 19, 20, and 21 each depend from claim 18.

Claim 19 adds “wherein the unique device identifying information comprises at least one user-configurable parameter and at least one non-user-configurable parameter of the given device.” Petitioner argues that Staruiala teaches that unique identifiers based on non-user configurable information, such as latency and imperfections in system components, can

be combined with user-configurable information such as user passwords.

Pet. 58–59. For example, Staruiala explains that

In principle, no two components possess exactly the same tolerable imperfections, therefore they should not respond in exactly the same way to the same request. However, once a response is established, e.g. propagation time, the response must be consistent, at least in a statistical sense, from trial to trial in order to be usable as an identifier.

Ex. 1004, 4. We find that this response is non-user configurable information. We further find that Staruiala describes combining this information with user configurable information (a password) to form a unique device identifying information: “To individualize a specific user, explicit and intrinsic private uniqueness can be combined with a user’s password or passphrase for a hash-based challenge-response or zero knowledge system. *The combination of the user’s passphrase and the computer’s identification will suffice to track and identify a particular user.*” *Id.* at 12 (emphasis added).

Claim 20 adds “wherein the device identity is generated by utilizing at least one irreversible transformation of the at least one user-configurable and the at least one non-user-configurable parameters of the given device.”

Petitioner contends that Staruiala teaches subjecting the user-configurable information and non-user-configurable information to a secure hash function, which Dr. Rubin testifies is an irreversible transformation.

Pet. 59–60 (citing Ex. 1002 ¶ 211; Ex. 1004, 11–12, 16). For example, Staruiala describes that

a unique identification for a system can be readily obtained and input to a fingerprint creation process. For device to device authentication, this explicit unique identity can be combined with intrinsic and private identity in a typical authentication

scheme such as a hash based challenge-response or a zero knowledge proof system.

Ex. 1004, 11; *accord id.* at 12 (“To individualize a specific user, explicit and intrinsic private uniqueness can be combined with a user’s password or passphrase for a hash-based challenge-response or zero knowledge system.”). According to Dr. Rubin, “Its irreversibility—the impossibility of recreating the original message from the hashed value—is precisely what makes a secure hash function secure, and therefore useful in a cryptographic setting. A secure hash assures the recipient that no one has tampered with the device fingerprint.” Ex. 1002 ¶ 211. We credit Dr. Rubin’s uncontroverted testimony and find that Staruiala teaches the additional limitation of claim 20.

Claim 21 adds “wherein the device identity is generated by utilizing a cryptographic hash function on the at least one user-configurable and the at least one non-user configurable parameters of the given device.” Petitioner similarly points to Staruiala’s description of subjecting the information to a secure hash function (Ex. 1004, 16), which Petitioner contends corresponds to the “cryptographic hash function” of claim 21. Pet. 61. Dr. Rubin testifies that “[t]he particular irreversible transformation Staruiala teaches to use is a secure hash function, which is simply another term for a ‘cryptographic hash function.’” Ex. 1002 ¶ 216. We credit Dr. Rubin’s uncontroverted testimony. On this evidence, we find that Staruiala teaches the additional limitation of claim 21.

As explained above, Petitioner has provided reasons, with rational underpinning, to combine the teachings of DeMello and Staruiala. *See, e.g.*, Ex. 1004, 13 (“The concept can be applied to scaled down (or minimal)

devices and be used in copyright protection schemes. Also it can be extended up to identify and authenticate networks (Figure 4) of computers or to device copyright protection schemes for software.”).

### 3. *Conclusion of Obviousness*

As explained above, DeMello and Staruiala teach each limitation of claims 1–8, 18–22, and 25. Petitioner has introduced persuasive evidence that a skilled artisan would have had reasons to combine DeMello and Staruiala. Patent Owner does not introduce objective indicia of nonobviousness. In sum, upon consideration of all the evidence, we conclude that Petitioner has proved by a preponderance of the evidence that the subject matter of claims 1–8, 18–22, and 25 would have been obvious over DeMello and Staruiala.

### III. PATENT OWNER’S CONTINGENT MOTION TO AMEND

Patent Owner files a Contingent Motion to Amend claims 1, 22, and 25, seeking to replace these claims with substitute claims 26–28, respectively, should we determine that claims 1, 22, and 25 are unpatentable. Mot. to Amend 1. As explained above, we determine that claims 1, 22, and 25 are unpatentable and, accordingly, address Patent Owner’s Contingent Motion to Amend.

“During an inter partes review instituted under this chapter, the patent owner may file 1 motion to amend the patent,” to, “[f]or each challenged claim, propose a reasonable number of substitute claims.” 35 U.S.C. § 316(d)(1); *see also* 37 C.F.R. § 42.121(a)(3). “An amendment under this subsection may not enlarge the scope of the claims of the patent or introduce

new matter.” 35 U.S.C. § 316(d)(3); *see also* 37 C.F.R. § 42.121(a)(2)(ii).  
The amendment also must “respond to a ground of unpatentability involved  
in the trial.” 37 C.F.R. § 42.121(a)(2)(i).

Claim 26 is a proposed substitute for claim 1 and is illustrative of the  
amendments proposed in the Motion to Amend (underlining indicating  
material added to claim 1 and strikethrough indicating deleted material):

26. A system for adjusting a license for a digital product  
over time, the license comprising at least one allowed copy  
count corresponding to a maximum number of devices  
authorized for use with the digital product, comprising:

a communication module for receiving a request for  
authorization to use the digital product from a  
given device, the request comprising:

license data associated with the digital product;  
and

a device identity generated at the given device at  
least in part by sampling physical  
parameters of the given device;

a processor module in operative communication with the  
communication module;

a memory module in operative communication with the  
processor module and comprising executable code  
for the processor module to:

verify that the license data ~~a license data~~ associated  
with the digital product is valid ~~based at~~  
~~least in part on a device identity generated~~  
~~by sampling physical parameters of the~~  
~~given device;~~

in response to the license data being verified as  
valid, determine whether the device identity  
is currently on a record;

in response to the device identity already being on ~~the record a record~~, allow the digital product to be used on the given device;

in response to the device identity not currently being on the record, temporarily adjust the allowed copy count from its current number to a different number by setting the allowed copy count to a first upper limit for a first time period, the first upper limit corresponding to the maximum number of devices authorized to use the digital product during the first time period ~~the allowed copy count corresponding to a maximum number of devices authorized to use the digital product~~;

calculate a device count corresponding to total number of devices currently already authorized for use with the digital product; and

when the calculated device count is less than the first upper limit, allow the digital product to be used on the given device.

Claims 27 and 28 propose similar changes to claims 22 and 25, respectively.

At a high level, Patent Owner amends the independent claims to 1) recite two separate tests for verifying license data and determining whether a device identity is on record; and 2) recite adjusting an allowed copy count from its current number to a different upper limit, rather than simply setting the allowed copy count to the upper limit.

Patent Owner provides an identification of written description support for the substitute claims in the original application that resulted in the '960 patent (Ex. 2004). Mot. to Amend 4–8, Appx. B. Petitioner does not

challenge these assertions of support. Based on Patent Owner's evidence, we find that the substitute claims are supported by the original application.

Petitioner contends that the substitute claims constitute non-statutory subject matter under 35 U.S.C. § 101, would have been obvious over DeMello and Hu, enlarge the scope of the invention, and are indefinite. Opp. to Mot. to Amend 1–25. We address these arguments in turn.

*A. Substitute Claims 26–28 Are Non-Statutory Subject Matter*

35 U.S.C. § 101 establishes that patent protection may be obtained for “new and useful process[es], machine[s], manufacture[s], or composition[s] of matter.” A “process” is defined as a “process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.” 35 U.S.C. § 100(b). The Supreme Court has long held that § 101 contains an implicit exception for “[l]aws of nature, natural phenomena, and abstract ideas.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013).

In *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), the Supreme Court set forth a framework for distinguishing claims directed to abstract ideas from those directed to patent-eligible applications of those abstract ideas. According to that framework, we first determine whether a claim is directed to an abstract idea. 134 S. Ct. at 2355. Second, “we consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297–98 (2012)).

As Petitioner points out (Opp. to Mot. to Amend 1–2), in the related District Court actions, the District Court determined that all claims of the '960 patent, including claims 1, 22, and 25, are directed to non-statutory subject matter. *See Uniloc USA, Inc. v. Amazon.com, Inc.*, 243 F. Supp. 3d 797, 811 (E.D. Tex. 2017) (“For the reasons listed above, the Court finds that all claims of the '960 Patent are drawn to ineligible subject matter under 35 U.S.C. § 101.”).<sup>4</sup> Petitioner contends that the substitute claims suffer from the same deficiencies and are non-statutory for the same reasons. Opp. to Mot. to Amend 1. Petitioner then provides specific arguments as to claims 26–28. *Id.* at 2–11.

Patent Owner does not respond to the substance of Petitioner’s arguments. Instead, Patent Owner contends that Petitioner could not have challenged claims 1, 22, and 25 under § 101 in the Petition and, therefore, should not be permitted to challenge narrower substitute claims on that basis in opposing the Motion to Amend. Mot. to Amend Reply 12–13. Patent Owner confirmed at the oral argument that it does not raise any substantive arguments to Petitioner’s contention that the substitute claims are non-statutory. Tr. 50:13–17 (“So if we decide that we can consider the Section 101 issue, you have not put forward any arguments on the merits as to Section 101. Is that correct? MR. MANGRUM: That is correct. Our position is strictly that it’s outside the scope of this proceeding.”).

Patent Owner acknowledges that several Board decisions have allowed Petitioners to challenge amended claims on the basis of § 101.

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<sup>4</sup> In District Court, the '960 patent enjoyed the presumption of validity, *see* 35 U.S.C. § 282, and was evaluated under the higher clear and convincing evidence standard.



*Id.* at 13. For example, in *Ariosa Diagnostics v. Isis Innovation Limited*, Case IPR2012-00022 (PTAB Sept. 2, 2014) (Paper 166), slip op. at 51–52, a panel explained “[a]lthough we agree with Isis that an *inter partes* review cannot be instituted using 35 U.S.C. § 101 as the basis for a challenge brought by a petitioner, . . . in a motion to amend, the patent owner has the burden of demonstrating the patentability of the claims.” In *Ariosa*, the claims to be amended were found by a district court and the Federal Circuit to be ineligible under § 101 and the patent owner did not explain sufficiently how the proposed amendments addressed the eligibility concerns. *Id.* at 52.

Patent Owner contends that cases such as *Ariosa* have been overruled by the Federal Circuit’s *en banc* determination in *Aqua Products, Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017). Mot. to Amend Reply 12–13. However, the passage in *Aqua Products* to which Patent Owner cites states that a patent owner may not inject new issues of patentability into the case by proposing amendments that are not responsive to an instituted ground of unpatentability. 872 F.3d at 1306. Even if this analysis from the plurality opinion in *Aqua Products* is controlling,<sup>5</sup> it does not foreclose an analysis of

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<sup>5</sup> The lead opinion acknowledges that “very little said over the course of the many pages that form the five opinions in this case has precedential weight” and that “[t]he only legal conclusions that support and define the judgment of the court are: (1) the PTO has not adopted a rule placing the burden of persuasion with respect to the patentability of amended claims on the patent owner that is entitled to deference; and (2) in the absence of anything that might be entitled deference, the PTO may not place that burden on the patentee. All the rest of our cogitations, whatever label we have placed on them, are just that—cogitations. Even our discussions on whether the statute is ambiguous are mere academic exercises.” *Aqua Prods.*, 872 F.3d at 1327–28.

whether substitute claims comply with statutory provisions beyond Sections 102 and 103. Indeed, after *Aqua Products*, the Board has determined that a patent owner may include amendments to address potential § 101 or § 112 issues. See *Western Digital Corp. v. SPEX Techs., Inc.*, Case IPR2018-00082 (PTAB Apr. 25, 2018) (Paper 13) (informative), slip op. at 6. Thus, we are not persuaded that the Federal Circuit has prohibited us from considering whether Patent Owner's substitute claims recite statutory subject matter. Nevertheless, we do not place the burden of proving patentability of the substitute claims on Patent Owner. See *Bosch Auto. Serv. Sols., LLC v. Matal*, 878 F.3d 1027, 1040 (Fed. Cir. 2017), as amended on reh'g in part (Mar. 15, 2018).

*I. Alice Step One*

The District Court characterized the claims of the '960 patent as directed to time-adjustable licenses and found that “[t]he time-adjustable license is an abstract idea because licensing is a fundamental economic practice and because licenses are abstract exchanges of intangible contractual obligations.” *Uniloc*, 243 F. Supp. 3d at 804 (citing *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1353 (Fed. Cir. 2014)). The District Court further found that the claims are not directed to specific improvements in the functioning of a computer. *Id.*

Petitioner contends that “[t]he substitute claims recite only basic steps for implementing the abstract idea of time-adjustable licensing, described at a high level of generality” and that “[t]he recited limitations neither describe nor require specialized technology, and any even arguably computer-related limitations at most involve the mere collection and manipulation of data.”

Opp. to Mot. to Amend 6–7. Petitioner argues that the substitute claims are directed to the types of financial transactions and regulating of economic relationships that the Federal Circuit and Supreme Court repeatedly have found to be abstract. *Id.* at 5 (citing *Alice*; *Bilski v. Kappos*, 561 U.S. 593 (2010); *Mortgage Grader, Inc. v. First Choice Loan Servs., Inc.*, 811 F.3d 1314 (Fed. Cir. 2016); *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306 (Fed. Cir. 2015); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363 (Fed. Cir. 2015); and *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015)).

We agree with Petitioner and follow the findings of the District Court. Specifically, the District Court found that a time-adjustable license is an abstract idea. Patent Owner’s proposed amendments do not change the character of the claims such that they are not abstract. As explained above, the amendments essentially 1) make clear that the claims are directed to a two stage test of verifying license data and determining whether a device identity is on record, and 2) make clear that the claims are directed to a time-adjustable license, the concept the District Court found to be abstract. We find that time-adjustable license is an abstract idea, like that of the various other financial, business, and contractual practices found by the Federal Circuit and Supreme Court to be abstract. Patent Owner does not argue otherwise. Tr. 50:13–17.

## 2. Alice Step Two

“The question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact.” *Berkheimer v. HP Inc.*, 881 F.3d 1360,

1368 (Fed. Cir. 2018). “Whether a particular technology is well-understood, routine, and conventional goes beyond what was simply known in the prior art. The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.” *Id.* at 1369.

As to step two of *Alice* as it pertained to the original independent claims of the ’960 patent, the District Court made detailed findings regarding each of the limitations, focusing on claim 22 as representative, concluding that the limitations were routine, conventional, and performed using generic computer equipment. *See Uniloc*, 243 F. Supp. 3d, at 806–08. Although we do not repeat those findings here in their entirety, we provide the following highlights:

“Because the time-adjustable license is the abstract concept to be limited by the remaining limitations, the preamble does not limit, but rather announces, the abstract concept.” *Id.* at 806;

“Verifying the validity of the license does not meaningfully limit the implementation of a time-adjustable license; rather, it asks only whether there is a valid license before the method determines how many devices may access the content under that license.” *Id.* at 807;

“[U]sing a device identity generated in part by sampling the physical characteristics of a device was well-known at the time the ’960 Patent was filed.” *Id.*;

“‘[A]llowing the digital product to be used on the given device’ . . . is routine.” *Id.*;

“[T]he sub-elements are all generic; ‘digital product’ and ‘given device’ have already been addressed, and ‘a record’ is a generic record. Nor does the combination of a ‘digital product,’ a ‘device’ and a ‘record’ contain an inventive concept.” *Id.*;

“‘Setting the allowed copy count to a first upper limit for a first time period’ does not provide a meaningful limitation on the concept of time-adjustable licenses because a time-adjustable license, which by definition has more than one copy count in more than one time period, necessarily has a ‘first upper limit for a first time period.’” *Id.*; and

“‘calculating a device count,’ is an information-gathering step, which does not provide an inventive concept.” *Id.*

Patent Owner does not contest any of the findings of the District Court. We have analyzed the District Court’s findings, agree with them, and adopt them herein.

Petitioner argues that “[t]he substitute claims likewise recite high-level, generalized steps directed to the abstract idea of a time-adjustable license using, at most, generic and conventional computer technology that falls well short of supplying an inventive concept.” Opp. to Mot. to Amend 9. We agree with Petitioner (*id.* at 9–10), that claims 26–28 refer to structure, if at all, in terms of generic modules, devices, and computers executing software code. Dr. Rubin testifies that added features of the substitute claims, including a request that contains a device identity generated at a given device at least in part by sampling physical parameters (Ex. 1031 ¶¶ 21–24) and communicating license data and device identity together (*id.* ¶¶ 25–26) were well-known and conventional, citing examples in his testimony. Patent Owner provides no response to Petitioner’s allegations and provides no reasons for us to second guess the District Court’s finding on the aspects of the substitute claims present in the original independent claims.

Upon consideration of the complete record, including the District Court decision and Dr. Rubin’s testimony, we find that the additional

elements of the substitute claims beyond the abstract idea of a time-adjustable license are recited as no more than generic computer modules and code, are well-understood, routine, and conventional, and do not transform the nature of the claims into patent-eligible applications of the abstract idea.

Accordingly, we conclude that substitute claims 26–28 recite patent ineligible subject matter under § 101.

*B. Petitioner Has Not Shown that Substitute Claims 26–28 Would Have Been Obvious*

Petitioner contends that claims 26–28 would have been obvious over DeMello and Hu. Opp. to Mot. to Amend 13–20. As explained below, we disagree.

*1. Scope and Content of the Prior Art—Overview of Hu*

Hu describes a system and method for moving a software license from one computer to another. Ex. 1026, Abstract. When a user installs licensed software on a computer and runs it, as part of an initialization process, software on the computer asks the user to enter account authentication information, such as a user ID and password. *Id.* at 6:20–26. The software then sends the authentication information to a server along with “a computer\_id (computer identification information) which is information that uniquely identifies the computer on which the software is run,” for example, “the MAC address of the Ethernet card,” or “a basket of hardware identifiers such as motherboard and hard drive serial numbers as the computer\_id.” *Id.* at 6:33–39. “After receiving the account authentication information and the computer\_id, the server authenticates the user by his account

authentication information, and makes a policy decision whether to enable or disable the software based on that computer\_id and the user's acquired license agreement." *Id.* at 6:55–59.

2. *Differences Between Claims 26–28 and the Prior Art, and Reasons to Modify*

Petitioner relies on the arguments and evidence for original claims 1, 22, and 25 for the aspects of claims 26–28 that overlap, and concentrates its motion to amend arguments on the differences. Opp. to Mot. to Amend 12.

Claim 26 recites a request comprising both “license data associated with the digital product; and a device identity *generated at the given device* at least in part by sampling physical parameters of the given device.” This differs from claim 1 in that claim 1 does not recite that license data and device identity are received together and does not specify precisely where the device identity is generated. Patent Owner distinguishes claim 26 from DeMello on the basis that DeMello does not teach a request that includes both a Passport ID and a hardware ID. Mot. to Amend 16. Patent Owner also argues that DeMello's machine ID, which is generated by the server receiving the hardware ID from a device being activated, is not generated at the given device. *Id.* at 17–18.

Petitioner cites Hu as teaching a system that transmits license information together with device identifying information in a single request. Opp. to Mot. to Amend. 13–14 (citing Ex. 1026, 6:31–39). Hu describes that “[u]pon receiving the account authentication information, the software sends it to the server, together with a computer\_id.” Ex. 1026, 6:31–35. Petitioner also argues that Hu's computer id is generated at the computer

seeking to be activated, rather than the server. Opp. to Mot. to Amend 14 (citing Ex. 1026, 6:31–39). Hu’s computer id is described as sent to the server (Ex. 1026, 6:31–35), implying that it is first generated at the computer. Dr. Rubin testifies that a skilled artisan “would have recognized that combining that information into a consolidated request for authorization, as disclosed by Hu, rather than sending the license and device identifying information separately would have streamlined and simplified the authentication procedure in the DeMello system.” Ex. 1031 ¶ 43.

Claim 26 also recites “in response to the device identity not currently being on the record, temporarily adjust the allowed copy count from its current number to a different number by setting the allowed copy count to a first upper limit for a first time period.” Here, claim 26 expressly recites changing a copy count from a current number to a different number, in contrast to claim 1 which, we explain above, is broad enough to encompass initially setting the copy count. In that regard, claim 26 is similar to claim 9, which, we also explain above, Petitioner has not proved to be anticipated by or obvious over DeMello.

Regarding this limitation of claim 26, Petitioner relies exclusively on DeMello. Opp. to Mot. to Amend 17–18 (citing Ex. 1003, 23:4–10).

DeMello describes:

The limit on activations may also allow for additional activations as time passes—e.g., one additional activation for each 90 day period after the first 90 days, up to a limit of 10 total activations. It will be appreciated that these limits are merely exemplary, and any limit on activations may be used without departing from the spirit and scope of the invention.

Ex. 1003, 23:4–10. Here, DeMello’s general description does not specify when activation limits are set. Similar to claim 9, claim 26 recites adjusting



the allowed copy count “in response to the device identity not currently being on the record.” Patent Owner argues that

[i]ncreasing the activation limit according to a predetermined, fixed schedule is distinguishable from conditionally and temporarily adjusting the allowed copy count from its current number to a different number *in response to a determination of whether a device identity is on a record*, which is an event that may randomly, if ever, occur.

Mot. to Amend 14. We agree with Patent Owner that Petitioner’s citation to DeMello does not show increasing an activation limit from one value to another in response to a determination that a device identity is not on record.

Relying on Dr. Rubin’s testimony, Petitioner attempts to argue that DeMello changes its device limit in response to a request for access from a device:

if 95 days had passed since the first user device was activated, and the user requested access from another device that was not on record, the DeMello activation servers would respond by changing the device limit from five to six (five devices for the first 90 days, plus one additional device because the request arrived in the second 90-day period).

Opp. to Mot. to Amend 17 (citing Ex. 1031 ¶ 56). Dr. Rubin repeats this argument in his testimony, nearly verbatim, but does not explain the basis for it. Ex. 1031 ¶ 56. Dr. Rubin further testifies that “whenever a requesting device is not in the record, the limit to be applied at that time must be determined, applied, and enforced, exactly as described in the ’960 Patent.” *Id.* ¶ 57. Dr. Rubin does not cite to any basis in DeMello to draw that conclusion and we find none.

In Section II.B.4 above we find that DeMello does not teach setting an allowed copy count from a first upper limit to a second upper limit “in

response to the device identity not being on the record.” For the same reasons, DeMello does not teach “in response to the device identity not currently being on the record, temporarily adjust the allowed copy count from its current number to a different number by setting the allowed copy count to a first upper limit for a first time period,” as recited in substitute claim 26 (and similarly recited in claims 27 and 28). We have considered the additional evidence Petitioner cites to in responding to the Motion to Amend, including Dr. Rubin’s testimony, and find it unpersuasive.

Based on the complete record, we conclude, on a preponderance of the evidence, that claims 26–28 would not have been obvious over DeMello and Hu.

*C. The Substitute Claims Do Not Enlarge Claim Scope*

Petitioner argues that “substitute claims 26–28 remove claim language from the ‘verify’ limitations of original claims 1, 22, and 25, respectively, that required verifying license validity *based in at least in part on a device identity generated by sampling physical parameters of the device*” and, as amended, “would cover verifying license data *in any manner*, with no requirement that verification be based on a device identity or any other factor.” Opp. to Mot. to Amend 22. Petitioner argues that “the substitute claims separate the license verification and record check into distinct steps, such that license verification occurs separate and apart from use of the device identity during the recited record check” and that, “[u]nlike the original claims, the substitute claims would require using the device identity *only* during the record check, which would occur ‘in response to’ (i.e., after) completing license data verification.” *Id.* at 23. Petitioner concludes that

the amendments enlarge the scope of the claims “in at least one respect because license verification in the substitute claims need not be based in part on a device identity generated by sampling physical parameters of the device.” *Id.* at 23–24.

We are not persuaded by Petitioner’s argument. Patent Owner correctly observes that the Petition treated the original verifying limitations as a test that encompasses determining whether a device identity is on a record. Mot. to Amend Reply 1. As explained in Section II.A.1 above, we agree with Petitioner in that regard. As Patent Owner argues, the substitute claims maintain this test (e.g., “determine whether the device identity is currently on a record,” as recited in claim 26) and add “an additional and explicit requirement” of verifying that the license data is valid. Mot. to Amend Reply 1–2. Thus, the substitute claims do not enlarge claim scope in the manner alleged by Petitioner.

*D. The Substitute Claims Are Not Indefinite*

The original independent claims recited verifying that a license data associated with the digital product is valid “based at least in part on a device identity generated by sampling physical parameters of the given device,” while the “verify[ing]” limitations of the substitute claims do not recite the device identity. Rather, the device identity is evaluated in a separate determination of whether the device identity is on record.

Petitioner argues that the amended “verify[ing]” limitations “reflect an undefined operation devoid of boundaries or structure, leaving the public with no guidance regarding what must be verified or how verification must take place to satisfy the substitute claims.” Opp. to Mot. to Amend 24.

According to Petitioner, the substitute claims lack the “guidance or specificity regarding license data verification.” *Id.* at 25. Patent Owner responds that Petitioner’s expert provides substantial testimony applying the claim language without expressing any difficulty. Mot. to Amend Reply 14 (citing Ex. 1031 ¶ 51; *Sonix Tech. Co., Ltd. v. Publications Int’l, Ltd.*, 844 F.3d 1370, 1380 (Fed. Cir. 2017) (“The parties’ experts also had no difficulty in applying ‘visually negligible.’ Dr. Ashok and Dr. Engels repeatedly applied the term to the references and the accused products. Although Appellees again argue that this does not establish an objective standard, continued application by the experts in this case further supports the conclusion that a skilled artisan did understand the term with reasonable certainty.”)).

Petitioner’s argument is conclusory and lacks meaningful evidentiary support and is, therefore, unpersuasive. We do not find the claim language to be ambiguous or vague and Petitioner does not provide a cogent explanation as to why it believes the language is indefinite. A preponderance of the evidence does not show that claims 26–28 are indefinite.

*E. Conclusion—Motion to Amend*

Petitioner has shown by a preponderance of the evidence that substitute claims 26–28 are directed to non-statutory subject matter under 35 U.S.C. § 101. Accordingly, we deny Patent Owner’s Motion to Amend.

#### IV. CONCLUSION

Petitioner has proved by a preponderance of the evidence that claims 1–8, 18–22, and 25 are unpatentable, but not claims 9–17, 23, and 24.

We deny Patent Owner’s Motion to Amend to replace claims 1, 22, and 25 with substitute claims 26–28.

#### V. ORDER

For the reasons given, it is:

ORDERED, based on a preponderance of the evidence, that claims 1–8, 18–22, and 25 are unpatentable;

FURTHER ORDERED, based on a preponderance of the evidence, that claims 9–17, 23, and 24 are not unpatentable;

FURTHER ORDERED, Patent Owner’s Motion to Amend is denied as to substitute claims 26–28; and

FURTHER ORDERED, because this is a final written decision, the parties to this proceeding seeking judicial review of our Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2017-00948  
Patent 8,566,960 B2

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMAZON.COM, INC., AMAZON DIGITAL SERVICES, INC.,  
AMAZON FULFILLMENT SERVICES, INC., HULU, LLC,  
and NETFLIX, INC,  
Petitioner,

v.

UNILOC LUXEMBOURG S.A.,  
Patent Owner.

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Case IPR2017-00948  
Patent 8,566,960 B2

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Before DAVID C. MCKONE, BARBARA A. PARVIS, and  
MICHELLE N. WORMMEESTER, *Administrative Patent Judges*.

MCKONE, *Administrative Patent Judge*.

DECISION  
PATENT OWNER'S REQUEST FOR REHEARING  
37 C.F.R. § 42.71(d)

## I. INTRODUCTION

Amazon.com, Inc., Amazon Digital Services, Inc., Amazon Fulfillment Services, Inc., Hulu, LLC, And Netflix, Inc. (collectively “Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–25 of U.S. Patent No. 8,566,960 B2 (Ex. 1001, “the ’960 patent”). Pursuant to 35 U.S.C. § 314, in our Institution Decision (Paper 10), we instituted this proceeding as to claims 1–25. Inst. Dec. 34. Patent Owner<sup>1</sup> filed a Patent Owner’s Response (Paper 15, “PO Resp.”), and Petitioner filed a Reply to the Patent Owner’s Response (Paper 18, “Reply”).

Patent Owner also filed a Contingent Motion to Amend (Paper 17, “Mot. to Amend”), seeking to replace claims 1, 22, and 25 with substitute claims 26, 27, and 28 if claims 1, 22, and 25 were found unpatentable. Petitioner filed an Opposition to the Motion to Amend (Paper 19, “Opp. to Mot. to Amend”), and Patent Owner filed a Reply supporting its Motion to Amend (Paper 24, “Mot. to Amend Reply”). Because we found that claims 1, 22, and 25 are unpatentable, we considered, and ultimately denied, Patent Owner’s Motion to Amend, concluding that the proposed substitute claims are directed to non-statutory subject matter under 35 U.S.C. § 101. Paper 31, Final Written Decision (“FWD”) 53, 63, 70.

In a Request for Rehearing (Paper 33, “Req.”), Patent Owner contends that we misapprehended the law and improperly considered whether substitute claims 26–28 constitute statutory subject matter under § 101.

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<sup>1</sup> Patent Owner represents that Uniloc 2017 LLC is the owner of the ’960 patent, and that Uniloc USA, Inc. and Uniloc Licensing USA LLC are real parties-in-interest. Paper 6; Paper 32.



Req. 2–3. For the reasons explained below, we deny Patent Owner’s Request for Rehearing.

## II. BACKGROUND

In a related matter, a district court determined that independent claims 1, 22, and 25 are non-statutory subject matter under § 101. *See Uniloc USA, Inc. v. Amazon.com, Inc.*, 243 F. Supp. 3d 797, 811 (E.D. Tex. 2017) (“For the reasons listed above, the Court finds that all claims of the ’960 Patent are drawn to ineligible subject matter under 35 U.S.C. § 101.”). The Federal Circuit has affirmed the District Court’s decision. *See Uniloc USA, Inc. v. Amazon.com, Inc.*, 2017-2051 (Fed. Cir. Aug. 9, 2018) (Fed. Cir. R. 36 decision). Substitute claims 26, 27, and 28 propose amendments to claims 1, 22, and 25, respectively. Mot. to Amend, 1, App. A.

Petitioner opposed Patent Owner’s Motion to Amend, *inter alia*, on the ground that substitute claims 26–28 are non-statutory subject matter under § 101. Opp. to Mot. to Amend 1–11. Patent Owner did not respond substantively to this argument; rather, Patent Owner argued that Petitioner was not permitted to raise § 101 in opposition to a motion to amend in an *inter partes* review. Mot. to Amend Reply 12–13. We fully considered and rejected Patent Owner’s argument and found that a preponderance of the evidence showed that substitute claims 26–28 are non-statutory subject matter. FWD 57–63, 69.

## III. ANALYSIS

The burden of showing that the Decision should be modified is on Patent Owner, the party challenging the Decision. *See* 37 C.F.R. § 42.71(d).

In addition, “[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply.” *Id.*

Patent Owner argues that, by overruling the Board’s practice of placing on the patent owner the burden of showing patentability of amended claims in *Aqua Products Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017) (en banc), the Federal Circuit also foreclosed review of proposed amended claims under § 101. Req. 3–4. Under Patent Owner’s theory, Board cases such as *Ariosa Diagnostics v. Isis Innovation Limited*, Case IPR2012-00022 (PTAB Sept. 2, 2014) (Paper 166), considered § 101 only as part of a patent owner’s burden to show patentability of the amended claims, and the Federal Circuit’s removal of that burden “overruled the very basis for *Ariosa Diagnostic*’s holding that a motion to amend must address patent eligibility under § 101.” Req. 3–4. However, as we explained in our Final Written Decision, *Aqua Products* makes clear that Patent Owner does not bear the burden of persuasion on issues of patentability in a motion to amend,<sup>2</sup> but does not foreclose an analysis of whether substitute claims comply with

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<sup>2</sup> To be clear, our Decision did not place the burden of showing patentability of substitute claims 26–28 on Patent Owner. FWD 59–63. The District Court determined that claims 1, 22, and 25 are non-statutory subject matter (which the Federal Circuit affirmed) and Petitioner introduced persuasive evidence and argument that the amendments proposed in substitute claims 26–28 did not address the statutory defect in claims 1, 22, and 25. *Id.* Patent Owner was silent as to whether the substitute claims recite statutory subject matter. *Id.* at 57 (citing Mot. to Amend Reply 12–13; Tr. 50:13–17). On the complete record, Petitioner proved by a preponderance of the evidence that substitute claims 26–28 recite non-statutory subject matter. *Id.* at 59, 62–63, 69.

§ 101. FWD 58–59. Although the panel in *Ariosa Diagnostic* noted that the burden to show patentability of amended claims required the patent owner to address § 101, the panel did not find that § 311(b) precludes us from considering the patentability of amended claims under other statutory provisions, such as § 101. Case IPR2012-00022, slip op. at 51–52.

By its terms, § 311(b) limits a petitioner to requesting cancellation of *existing* claims of a patent only under § 102 and § 103. 35 U.S.C. § 311(b) (“A petitioner in an inter partes review may request to cancel as unpatentable *1 or more claims of a patent* only on a ground that could be raised under section 102 or 103 . . . .” (emphasis added)). It does not, however, limit the grounds of unpatentability that can be raised in response to proposed substitute amended claims presented in a motion to amend. In contrast to § 311(b), the statutory provision providing a right to a motion to amend, 35 U.S.C. § 316(d), does not prevent us from considering unpatentability under sections other than § 102 and § 103 with respect to substitute claims.<sup>3</sup>

This distinction between claims of a patent and amended claims is further reflected in the statute. For example, the statute makes clear that amended claims are proposed claims until they are added following a final written decision and action of the Director. *See* 35 U.S.C. §§ 318(a)–(b). Specifically, § 318(a) (emphases added) directs us to “issue a final written

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<sup>3</sup> Section 316(d)(1) provides that “(1) *In general.*—During an inter partes review instituted under this chapter, the patent owner may file 1 motion to amend the patent in 1 or more of the following ways: (A) Cancel any challenged patent claim. (B) For each challenged claim, propose a reasonable number of substitute claims.”

decision with respect to the patentability of *any patent claim challenged by the petitioner and any new claim added under section 316(d).*”

Section 318(b) (emphases added) reiterates this distinction, providing that, if we issue a final written decision, “the Director shall issue and publish a certificate canceling *any claim of the patent finally determined to be unpatentable*, confirming *any claim of the patent determined to be patentable*, and incorporating in the patent by operation of the certificate *any new or amended claim* determined to be patentable.”

*Aqua Products* says nothing to the contrary. Instead, the lead opinion in *Aqua Products* recognizes that substitute claims sought to be added to a patent are not claims of that patent. *See Aqua Prods.*, 872 F.3d at 1304 (“The ‘request’ made by a motion to amend is—in the PTO’s own words—for ‘entry’ into the IPR, not for entry of an amended claim into the patent. Once entered into the proceeding, the amended claims are to be assessed for patentability alongside the original instituted claims.”). Although not binding on this point, the *Aqua Products* lead opinion recognizes this distinction, in the statute, between the claims challenged by a petitioner and substitute claims introduced by a patent owner:

For example, §§ 316(a)(9) and 316(d) distinguish a “challenged claim” from “substitute claims.” Similarly, § 314(a) only applies to “claims challenged in the petition.” In § 318(a), Congress distinguished between “any patent claim challenged by the petitioner” and “any new claim added under section 316(d).” And in § 318(b), Congress explained the procedure for issuing a certificate confirming the patentability of claims “and incorporating in the patent . . . any new or amended claim determined to be patentable.” In § 318(c), Congress provided for intervening rights with respect to “proposed amended or

new claim[s] determined to be patentable” and incorporated into the patent following an IPR.

*Aqua Prods.*, 872 F.3d at 1306. As the lead opinion notes, “Congress is presumed to have acted intentionally when it made the distinction between challenged and amended claims in multiple parts of the AIA statutory scheme . . . .” *Id.* at 1306–07 (citing *Bates v. United States*, 522 U.S. 23, 29–30 (1997)).

This understanding is consistent with the Board’s practice of relying on provisions other than § 102 and § 103 to evaluate amended claims for unpatentability. *See, e.g., Apple Inc. v. Valencell, Inc.*, Case No. IPR2017-00315, 2018 WL 2552323, at \*18 (PTAB May 31, 2018) (“[W]e agree with Petitioner that the proposed substitute claims do not pass muster under 35 U.S.C. § 112 because they are indefinite.”); *Cook Grp. Inc. v. Bos. Sci. Scimed, Inc.*, Case No. IPR2017-00440, 2018 WL 6828874, at \*34 (PTAB Dec. 28, 2018) (“[W]e determine, based on the final record before us, that Petitioner has not shown, by a preponderance of the evidence, that proposed substitute claims 21, 30, and 38 are unpatentable for failing to comply with the requirements of 35 U.S.C. § 112, ¶¶ 1, 2.”); *Intel Corp., Cavium, LLC v. Alacritech, Inc.*, Case No. IPR2017-01409, 2018 WL 5992621, at \*10 (PTAB Nov. 14, 2018) (“[W]e are not persuaded by Petitioner that substitute claims 61–78 are indefinite under 35 U.S.C. § 112, second paragraph.”).

Patent Owner does not point us to authority that § 311(b) precludes Petitioner from raising, or us from considering, other grounds of unpatentability, including § 101, as to substitute claims not yet part of a patent, in the context of a motion to amend. Patent Owner’s only authority for its contention that we may only consider § 102 and § 103 as to substitute

claims is the *Secure Access* case. Req. 2–3 (citing *Secure Access, LLC v. PNC Bank Nat’l Ass’n*, 848 F.3d 1370, 1379 (Fed. Cir. 2017), cert. granted, judgment vacated sub nom. *PNC Bank Nat. Ass’n v. Secure Access, LLC*, 138 S. Ct. 1982 (2018)). In *Secure Access*, the Federal Circuit explained:

Congress intended that the CBM program was to be more limited in scope than that. Its restriction to “covered business method” patents, and its temporary nature (eight years), make clear that it is a program established for a defined set of patents, not for virtually every patent. Moreover, in the AIA, the same statute that established the CBM program, Congress carefully set out limits on the *inter partes* review (“IPR”) program for review of patents after issuance. Persons sued for infringement had no more than one year to petition for IPR, and were restricted to presenting only certain §§ 102 and 103 grounds of unpatentability, thus excluding grounds based on, for example, § 101 or § 112. It is not sensible to read AIA § 18(d)(1) as obliterating these important limits for review of essentially any patent, subject only to the “technological invention” exception.

848 F.3d 1370 at 1379. *Secure Access*, however, only considered eligibility of a patent for covered business method patent review and with respect to claims as issued in the patent under consideration. Its statements regarding *inter partes* reviews were included as statutory background with regard to issued claims to illustrate why the threshold eligibility requirements should not be reduced to a technological invention test in a covered business method patent review. We do not read those statements as defining the scope of an *inter partes* review with respect to proposed substitute claims, which was not at issue in *Secure Access*. In the instant case, Petitioner did not request cancellation of previously issued patent claims based on § 101 in the Petition. Rather, consistent with § 311(b) and the language of *Secure*

*Access* cited by Patent Owner, Petitioner presented in the Petition only grounds based on § 102 and § 103. Petitioner did not raise § 101 until Patent Owner proposed substitute claims not yet added to the '960 patent and asserted that argument only against the substitute claims. Opp. to Mot. to Amend 1–11.

Finally, Patent Owner asserts that we relied improperly on *Western Digital Corp. v. SPEX Technologies., Inc.*, Case IPR2018-00082 (PTAB Apr. 25, 2018) (Paper 13) (informative). Req. 3. Patent Owner argues that *Western Digital* “did not hold that a motion to amend must address § 101 eligibility” and that “[i]t does not even hold that it is permissible for a Board to consider § 101 eligibility.” *Id.* at 4. According to Patent Owner, “[t]hat a patent owner may seek narrowing amendments to make the claims more robust against a potential § 101 challenge outside an IPR proceeding does not mean that the Board may consider such a § 101 challenge in the IPR in which those amendments are entered.” *Id.* at 4–5. We did not, however, cite *Western Digital* as holding that a motion to amend must address § 101 eligibility. Rather, by recognizing that § 101 issues can be introduced and corrected through a motion to amend, *Western Digital* reinforces that *Aqua Products* did not divest us of the power to consider a § 101 challenge to proposed amended claims.

According to the lead opinion in *Aqua Products*, “the Board must consider the entirety of the record before it when assessing the patentability of amended claims under § 318(a) and must justify any conclusions of unpatentability with respect to amended claims based on that record.” 872 F.3d at 1296; *accord id.* at 1309 (“When read in conjunction with the directive of § 318, we believe that the Board must assess the patentability of

all claims in the proceeding, including amended claims that have been entered into the proceeding after satisfying the requirements outlined in § 316(d), and must do so through the lens of § 316(e).”). Here, the record<sup>4</sup> indicates that the existing claims of the ’960 patent have been determined to be non-statutory subject matter by a district court and the Federal Circuit. When we considered the record in its entirety, we determined that Petitioner proved, by a preponderance of the evidence, that the substitute claims are not patentable. Patent Owner has not argued persuasively, either in the Motion to Amend Reply or the Request for Rehearing, that any authority precludes Petitioner from arguing, or us from considering, whether a substitute claim in a motion to amend constitutes statutory subject matter under § 101. Accordingly, Patent Owner does not show that we misapprehended the law.

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<sup>4</sup> This evidence was introduced into the record by Petitioner. Paper 19, 1–2. Nevertheless, as Petitioner pointed out (*id.* at 2), Patent Owner had a duty of candor, under 37 C.F.R. § 42.11(a), to introduce this evidence. *See also* Memorandum of Chief Administrative Patent Judge, Guidance on Motions to Amend in view of *Aqua Products*, 2 (Nov. 21, 2017) (“[U]nder 37 C.F.R. § 42.11, all parties have a duty of candor, which includes a patent owner’s duty to disclose to the Board information that the patent owner is aware of that is material to the patentability of substitute claims, if such information is not already of record in the case.”); 37 C.F.R. § 42.8(b)(2) (“Each of the following notices must be filed: . . . (2) *Related matters*. Identify any other judicial or administrative matter that would affect, or be affected by, a decision in the proceeding.”). Thus, the adverse decisions should have been part of the record regardless of Petitioner’s choice to introduce them.



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#### IV. CONCLUSION

Patent Owner has not shown that we misapprehended the law. Accordingly, we decline to change our Decision.

#### V. ORDER

For the reasons given:

Patent Owner's Request for Rehearing is *denied*.

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