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Paper 19
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner,

v.

UNILOC 2017 LLC,
Patent Owner.

IPR2019-01252
Patent 7,024,696 B1

Before ROBERT J. WEINSCHENK, JOHN D. HAMANN, and JULIET MITCHELL DIRBA, *Administrative Patent Judges*.

WEINSCHENK, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background and Summary

Microsoft Corporation ("Petitioner") filed a Petition (Paper 2, "Pet.") requesting an *inter partes* review of claims 1, 3, 4, 9, 15, 20, 24, 25, 27, 30, 31, 36, and 37 ("the challenged claims") of U.S. Patent No. 7,024,696 B1 (Ex. 1001, "the '696 patent"). Uniloc 2017 LLC ("Patent Owner") filed a Preliminary Response (Paper 6, "Prelim. Resp.") to the Petition. We instituted an *inter partes* review of the challenged claims on December 20, 2019. Paper 7 ("Dec. on Inst."), 23. After institution, Patent Owner filed a Response (Paper 9, "PO Resp.") to the Petition, Petitioner filed a Reply (Paper 10, "Pet. Reply") to the Response, and Patent Owner filed a Sur-reply (Paper 11, "PO Sur-reply") to the Reply. We held an oral hearing on September 17, 2020, and a transcript of the hearing is included in the record. Paper 18 ("Tr.").

For the reasons set forth below, Petitioner has shown by a preponderance of the evidence that claims 1, 3, 4, 9, 15, 20, 24, 25, 27, 30, 31, 36, and 37 of the '696 patent are unpatentable.

B. Real Parties in Interest

The parties identify themselves as the real parties in interest. Pet. 67; Paper 3, 1.

C. Related Matters

The parties indicate that the '696 patent is the subject of the following district court case: *Uniloc 2017 LLC v. Microsoft Corp.*, No. 8:18-cv-02054 (C.D. Cal.). Pet. 67; Paper 3, 2. Petitioner indicates that the '696 patent previously was the subject of several other district court cases, as well as IPR2017-00301. Pet. 67–69. In addition, U.S. Patent No. 8,613,110 B2

(Ex. 1004, "the '110 patent"), which claims priority to the '696 patent, is the subject of IPR2019-01251.

D. The '696 Patent

The '696 patent relates to "preventing piracy of a given software application over a communications network." Ex. 1001, 2:3–7. According to the '696 patent, when a user installs a software application and attempts to access it, the software informs the user that online activation is required. *Id.* at 8:8–13. To activate the software, the user connects to a remote service system that requests user data from the user. *Id.* at 8:14–19. The user data may include an identification code, "which is a program code sequence comprised of alphanumeric characters, that would serve to identify each individual software application." *Id.* at 3:53–4:1. The remote service system uses the requested user data to determine whether the user is a pirator. *Id.* at 8:33–35. For example, "[m]ultiple online activation attempts of the same software . . . , regardless if such attempts are by distinct or the same users, would naturally indicate that the software . . . was pirated." *Id.* at 4:65–5:1. If the remote service system determines that the user is not a pirator, the remote service system transmits service data to the user (*id.* at 8:35–39), which may include an activation code that will activate the software application for the user (*id.* at 5:15–18, 5:29–32). If, however, the remote service system determines that the user is a pirator, the remote service system may blacklist the specific software, as referenced by its identification code, thereby prohibiting it "from receiving any future activation codes." *Id.* at 5:1–9.

E. Illustrative Claim

Of the challenged claims, claims 1, 15, 24, 30, and 36 are independent. Claim 1 is reproduced below.

> 1. A method of preventing piracy of a given software application comprising the steps of:
>
> assigning a unique identification code to each authentic copy of such software application;
>
> installing the software application in a data storage element on a user's computer;
>
> configuring the software application to require service data to activate at least part of its functionality;
>
> requiring the user to communicate user data over a communications network to a remote service provider, the user data being derived, at least in part, from the unique identification code;
>
> examining received user data to derive the unique identification code associated with the copy of the software application installed by said user
>
> counting the number of times an attempt has been made to obtain said service data in order to activate at least part of the functionality of said software application assigned to such unique identification code; and
>
> selectively transmitting service data to the user's computer when said remote service provider determines that the number of times an attempt has been made to obtain said service data in order to activate at least part of the functionality of said software application assigned to such unique identification code is fewer than a predetermined threshold, said user's computer being connected to said communications network and designated to storably receive said service data.

Ex. 1001, 9:2–29.

F. Evidence

Petitioner submits the following evidence:

Evidence	Exhibit No.
Declaration of Dr. Jennifer Golbeck ("Golbeck Declaration")	1003
Schoch, US 6,460,140 B1, issued Oct. 1, 2002 ("Schoch")	1005
Wyman, US 5,260,999, issued Nov. 9, 1993 ("Wyman")	1006
Clark, US 6,343,280 B2, issued Jan. 29, 2002 ("Clark")	1007
Capps, US 6,711,682 B1, issued Mar. 23, 2004 ("Capps")	1008
Rebuttal Declaration of Dr. Jennifer Golbeck ("Golbeck Rebuttal Declaration")	1034

G. Asserted Grounds

Petitioner asserts that the challenged claims are unpatentable on the following grounds:

Claims Challenged	35 U.S.C. §	References
1, 4, 9, 15, 20, 24, 27, 30, 36	103[1]	Schoch, Wyman
3, 25, 31, 37	103	Schoch, Wyman, Capps
1, 4, 9, 15, 20, 24, 27, 30, 36	103	Schoch, Wyman, Clark
3, 25, 31, 37	103	Schoch, Wyman, Clark, Capps

II. ANALYSIS

A. Legal Standards

A claim is unpatentable as obvious 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 the

[1] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Because the '696 patent was filed before the effective date of the relevant amendment, the pre-AIA version of § 103 applies.

subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved 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 ordinary skill in the art; and 4) any objective indicia of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art would have had "at least a Bachelor's of Science Degree in Computer Science, Computer Engineering, Electrical Engineering, or a related discipline in the field of digital rights management, and at least 2 years of experience in the field of digital rights management." Ex. 1003 ¶ 34. Petitioner also asserts that "[a]dditional education related to digital rights management, or additional work experience in this field, may compensate for a defici[ency] in the other." *Id.*

Patent Owner responds that "[t]he Petition refers to the accompanying Declaration of Petitioner's Expert, without stating a level of ordinary skill in the art in the Petition." PO Resp. 15 (citation omitted). Patent Owner's argument is not persuasive. The Petition identifies paragraph 34 of the Golbeck Declaration as "describing the level of ordinary skill in the relevant field of the '696 patent." Pet. 3. Paragraph 34 of the Golbeck Declaration states that a person of ordinary skill in the art would have had "at least a Bachelor's of Science Degree in Computer Science, Computer Engineering, Electrical Engineering, or a related discipline in the field of digital rights management, and at least 2 years of experience in the field of digital rights

management." Ex. 1003 ¶ 34. Thus, the Petition identifies with sufficient particularity the level of ordinary skill in the art applied in the Petition.

Patent Owner responds that Petitioner's description of the level of ordinary skill in the art "is inappropriate" because Petitioner's use of the phrase "at least" means that its description "has no upper bounds." PO Resp. 15–16. Patent Owner's argument is not persuasive. Petitioner's description is flexible in that "[a]dditional education related to digital rights management, or additional work experience in this field, may compensate for a defici[ency] in the other." Ex. 1003 ¶ 34. Petitioner's declarant, Dr. Golbeck, explains that the phrase "at least" is used to reflect that flexibility, not to encompass "an individual with excessive educational or work experience." Ex. 1034 ¶ 11.

Moreover, Dr. Golbeck confirms that her patentability analysis is from "the perspective of a [person of ordinary skill in the art ("POSITA")] having the baseline education and work experience," and, thus, the phrase "at least" did not impact her analysis. *Id.* ¶ 12. Similarly, at the oral hearing, Petitioner stated that deleting the phrase "at least" from its description of the level of ordinary skill in the art would not impact its analysis or its declarant's analysis. Tr. 19:11–25. And Patent Owner acknowledged at the oral hearing that deleting the phrase "at least" from Petitioner's description would "address[] [Patent Owner's] concern." *Id.* at 39:9–26. Thus, to avoid any ambiguity, as discussed below, we delete the phrase "at least" from Petitioner's description.

Patent Owner responds that Petitioner's description of the level of ordinary skill in the art "points not to the more general field of computer software, but to the highly specialized and particular field of '***digital rights***

management,' without an appropriate basis on the record." PO Resp. 16. Specifically, Patent Owner contends that although Petitioner's declarant, Dr. Golbeck, "has addressed digital rights management, her experience has not been exclusively in the field of digital rights management." *Id.* (citing Ex. 1003 ¶¶ 9–10). Thus, according to Patent Owner, Dr. Golbeck's "experience demonstrates that those in the field in fact were involved in a wide variety of domains such as web programming and social networks, and not exclusively in the field of digital rights management." *Id.* at 17.

Patent Owner's argument is not persuasive. First, to the extent Patent Owner contends that Petitioner's description of the level of ordinary skill in the art requires experience *exclusively* in the field of digital rights management, we disagree. Petitioner's description requires two years of experience in the field of digital rights management, but does not preclude experience in other fields as well. Ex. 1003 ¶ 34. Second, Petitioner's description is supported by the evidence of record. Specifically, the '696 patent and the prior art provide solutions to problems involving software licensing and piracy (Ex. 1001, 1:8–16; Ex. 1005, 1:5–9; Ex. 1006, 1:23–26; Ex. 1007, 1:6–11), which "fall squarely within the field of digital rights management" (Ex. 1034 ¶ 13).

Patent Owner responds that Petitioner's declarant, Dr. Golbeck, "does not indicate that [s]he was informed as to the legal standard for determining the level of ordinary skill in the art," and "did not conduct any review of the type of problems, the prior art solutions, the rapidity of development in the industry, or the sophistication of the technology." PO Resp. 17–18. Patent Owner's argument is not persuasive. Dr. Golbeck explains that Petitioner's description of the level of ordinary skill in the art is "[b]ased on [her]

knowledge and experience in the field and [her] review of the '696 patent and file history." Ex. 1003 ¶ 34. And, as discussed above, Petitioner's description is consistent with the problems and solutions discussed in the '696 patent and the prior art. Ex. 1001, 1:8–16; Ex. 1005, 1:5–9; Ex. 1006, 1:23–26; Ex. 1007, 1:6–11; Ex. 1034 ¶ 13.

Finally, Patent Owner proposes its own description of the level of ordinary skill in the art. PO Resp. 18. Specifically, Patent Owner asserts that a person of ordinary skill in the art would have had "a Bachelor's of Science Degree in Computer Science, Computer Engineering, [or] Electrical Engineering, and 2 years of experience in the field of Computer Science, Computer Engineering or Electrical Engineering." *Id.* We disagree. First, Patent Owner does not identify specific evidence to support its description. *See id.* Second, as discussed above, the '696 patent and the prior art indicate that a person of ordinary skill in the art would have had experience in the field of digital rights management, not just general experience in computer science, computer engineering, or electrical engineering. Ex. 1001, 1:8–16; Ex. 1005, 1:5–9; Ex. 1006, 1:23–26; Ex. 1007, 1:6–11; Ex. 1034 ¶ 13.

For the foregoing reasons, we adopt Petitioner's description of the level of ordinary skill in the art, which is supported by the testimony of Petitioner's declarant, Dr. Golbeck, and is consistent with the '696 patent and the prior art. As noted above, to avoid any ambiguity, we delete the phrase "at least" from Petitioner's description. Therefore, we determine that a person of ordinary skill in the art would have had a Bachelor's of Science Degree in Computer Science, Computer Engineering, Electrical Engineering, or a related discipline in the field of digital rights management, and two years of experience in the field of digital rights management.

We note, though, that we do not find any instance in which the differences between the parties' respective descriptions of the level of ordinary skill in the art impacts our findings or conclusions in this case. *See* Sections II.D–II.G. Patent Owner argues generally that Petitioner's asserted grounds of unpatentability "are all based on a level of ordinary skill in the art that is higher and more specific than is warranted based on the record." PO Resp. 20. But Patent Owner does not identify any specific dispute that is impacted by the differences between the parties' respective descriptions. *See id.* at 20–21; Sections II.D–II.G.

C. Claim Construction

In an *inter partes* review proceeding, a claim of a patent is construed using the same standard used in federal district court, including construing the claim in accordance with the ordinary and customary meaning of the claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340, 51,340, 51,358 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018) (now codified at 37 C.F.R. § 42.100(b) (2019)). Petitioner proposes construing the term "attempt" to include "all attempts regardless of whether an attempt is successful or unsuccessful." Pet. 6–7. Patent Owner proposes construing the term "attempt" according to "its ordinary and customary meaning as understood by one of ordinary skill in the art, and not, as proposed by Petitioner." PO Resp. 20.

At the oral hearing, the parties agreed that the term "attempt" does not require an express construction to resolve the parties' disputes in this case.

Tr. 18:20–19:10, 38:19–39:8. We agree and determine that no claim terms require an express construction to resolve the parties' disputes regarding the asserted grounds of unpatentability. *See* Sections II.D–II.G.

D. Ground 1A – Obviousness of Claims 1, 4, 9, 15, 20, 24, 27, 30, and 36 over Schoch and Wyman

Petitioner argues that claims 1, 4, 9, 15, 20, 24, 27, 30, and 36 would have been obvious over Schoch and Wyman. Pet. 2, 10. For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that claims 1, 4, 9, 15, 20, 24, 27, 30, and 36 would have been obvious over Schoch and Wyman.

1. Overview of Schoch and Wyman

Schoch relates to "controlling the distribution of software under a license agreement." Ex. 1005, 2:11–13. Schoch teaches that a licensed copy of software has a unique validation number. *Id.* at 2:53–62, 3:50–55. To activate the software, a user submits the unique validation number and a password to a software library. *Id.* at 3:64–67. The software library generates a registration key that includes the unique validation number, the password, and a system identification number for the user's computer. *Id.* at 4:1–2, 4:18–21. The user then submits the registration key to a remote license registration database. *Id.* at 4:3–7. After the license registration database verifies the registration key, it generates a license key that includes the system identification number from the registration key. *Id.* at 4:7–11. The license registration database transmits the license key to the user's computer, and the user's computer stores the license key. *Id.* at 4:11–12. The user's computer can fully activate the licensed copy of the software by verifying the stored license key. *Id.* at 4:12–15. Each licensed copy of the software has a maximum number of license keys. *Id.* at 3:50–55.

Wyman relates to a software license management system. Ex. 1006, 6:43–45. Wyman teaches a consumptive software license that provides a user with a maximum number of license units for the software. *Id.* at 15:42–45. In order to account for the user's consumption of those units, Wyman teaches that an appropriate number of license units is deducted from the maximum number of license units immediately upon receipt of a license request. *Id.* at 15:45–59, 17:20–35.

2. Claim 1

Claim 1 recites "[a] method of preventing piracy of a given software application."[2] Ex. 1001, 9:2–3. Schoch teaches a method for preventing a user from giving away free copies of a software application. Pet. 24; Ex. 1005, 1:5–9. Patent Owner does not dispute that the Schoch and Wyman combination teaches the preamble of claim 1.

Claim 1 recites "assigning a unique identification code to each authentic copy of such software application." Ex. 1001, 9:4–5. Schoch teaches that each licensed copy of the software application has a unique validation number. Pet. 24–26; Ex. 1005, 2:53–62, 3:50–55. Patent Owner does not dispute that the Schoch and Wyman combination teaches this limitation of claim 1.

Claim 1 recites "installing the software application in a data storage element on a user's computer." Ex. 1001, 9:6–7. Schoch teaches installing the software application on the user's computer. Pet. 26; Ex. 1005, 2:63–65.

[2] For purposes of this Decision, we need not decide whether the preamble of claim 1 is limiting because we determine that the Schoch and Wyman combination teaches a method of preventing piracy of a given software application.

Patent Owner does not dispute that the Schoch and Wyman combination teaches this limitation of claim 1.

Claim 1 recites "configuring the software application to require service data to activate at least part of its functionality." Ex. 1001, 9:8–9. Schoch teaches that the user must obtain a license key to activate a licensed copy of the software application. Pet. 26–28; Ex. 1005, 3:61–4:15. Patent Owner does not dispute that the Schoch and Wyman combination teaches this limitation of claim 1.

Claim 1 recites "requiring the user to communicate user data over a communications network to a remote service provider, the user data being derived, at least in part, from the unique identification code." Ex. 1001, 9:10–13. Schoch teaches that to activate a licensed copy of the software application, the user submits a registration key over the Internet to a remote license registration database. Pet. 28–30; Ex. 1005, 3:61–4:7, Fig. 2. The registration key includes the unique validation number, a password, and a system identification number. Pet. 30–33; Ex. 1005, 3:64–4:2. Patent Owner does not dispute that the Schoch and Wyman combination teaches this limitation of claim 1.

Claim 1 recites "examining received user data to derive the unique identification code associated with the copy of the software application installed by said user." Ex. 1001, 9:14–16. Schoch teaches that after the user submits the unique validation number as part of the registration key, the license registration database verifies the registration key. Pet. 33–34; Ex. 1005, 4:5–11. A person of ordinary skill in the art would understand that verifying the registry key involves examining the registry key to derive the unique validation number. Pet. 34–35; Ex. 1003 ¶ 100. Patent Owner

does not dispute that the Schoch and Wyman combination teaches this limitation of claim 1.

Claim 1 recites "counting the number of times an attempt has been made to obtain said service data in order to activate at least part of the functionality of said software application assigned to such unique identification code." Ex. 1001, 9:17–20. Schoch teaches that the user submits the validation number for a licensed copy of the software application to the license registration database in order to obtain a license key that activates the software application. Pet. 28–30; Ex. 1005, 3:61–4:15. Schoch also teaches that each licensed copy of the software application (and thus each validation number) has a maximum number of license keys. Pet. 35–36; Ex. 1005, 3:50–55.

Wyman teaches a consumptive software license that provides a user with a maximum number of license units for the software. Pet. 36–37; Ex. 1006, 15:42–45. Wyman also teaches that an appropriate number of license units is deducted from the maximum number of license units immediately upon receipt of a license request.[3] Pet. 37; Ex. 1006, 15:45–59, 17:20–35. Because Wyman teaches counting a license request immediately upon receipt, Wyman teaches counting every activation attempt regardless of whether it is successful or unsuccessful. Pet. 37–38; Ex. 1003 ¶ 105; Ex. 1006, 17:20–35. As discussed in more detail below, it would have been obvious to one of ordinary skill in the art to combine the cited teachings of Wyman with Schoch so that Schoch's license registration database counts

[3] Although Wyman starts with the maximum number of license units and counts down to zero, it would have been obvious to start at zero and count up to the maximum number of license units. Pet. 23; Ex. 1003 ¶ 85.

the number of activation attempts for a validation number associated with a copy of a software application until the count reaches the maximum number of license keys for that validation number. Pet. 23–24, 36–37; Ex. 1003 ¶¶ 85, 104. Patent Owner does not dispute that the Schoch and Wyman combination teaches this limitation of claim 1.

Claim 1 recites "selectively transmitting service data to the user's computer when said remote service provider determines that the number of times an attempt has been made to obtain said service data in order to activate at least part of the functionality of said software application assigned to such unique identification code is fewer than a predetermined threshold." Ex. 1001, 9:21–27. As discussed above, in the Schoch and Wyman combination, Schoch's license registration database counts the number of activation attempts for a validation number associated with a copy of a software application until the count reaches the maximum number of license keys for that validation number. Pet. 23–24, 36–37; Ex. 1003 ¶¶ 85, 104. Further, a person of ordinary skill in the art would understand that Schoch's license registration database only transmits a license key to the user's computer when the count of the number of activation attempts for a validation number is less than the maximum number of license keys for that validation number. Pet. 40–42; Ex. 1003 ¶ 107; Ex. 1005, 3:50–55, 3:61–4:15.

Patent Owner responds with several arguments regarding this limitation of claim 1. PO Resp. 28–39; PO Sur-reply i–v. In general, Patent Owner contends that Schoch teaches that a license can activate a copy of the software on only one computer, but the license provides that computer with an unlimited number of license keys. PO Resp. 28–39; PO Sur-reply i–v.

Thus, according to Patent Owner, Schoch teaches limiting the number of *computers* on which a licensed copy of the software is installed, not the number of *activations*. PO Resp. 30–31; PO Sur-reply ii. We disagree. Schoch teaches that a license can activate a copy of the software on more than one computer (Ex. 1005, 3:61–67), but the license provides a maximum number of license keys (*id.* at 3:50–55). Further, because a user must obtain a license key for each activation of a copy of the software, Schoch's maximum number of license keys limits the number of activations for that copy. Ex. 1003 ¶ 103; Ex. 1005, 3:61–4:15; Ex. 1034 ¶ 26. We address each of Patent Owner's individual arguments below.

First, Patent Owner responds that Schoch does not teach that the license registration database only transmits a license key to the user's computer when the number of activation attempts is less than a predetermined threshold. PO Resp. 29. Patent Owner contends that "Schoch simply states that the license registration database validates the registration number, stores the user password, and creates the license key," but "provides no explanation of the steps taken in the verification process." *Id.* (citing Ex. 1005, 3:2, 4:7–8, 4:66–5:1). Patent Owner also contends that Petitioner "seeks to leverage this enormous gap in Schoch's disclosure by arguing that Schoch has an objective of limiting the number of authorized activations per licensed copy of a software [application]." *Id.* at 30 (citing Pet. 18). According to Patent Owner, "[t]his is a wholly conclusory allegation." *Id.* (citing Ex. 1003 ¶ 80).

Patent Owner's argument is not persuasive. Schoch teaches that each licensed copy of the software has a maximum number of license keys. Ex. 1005, 3:50–55, 4:41–43. For example, Schoch states that "*[e]ach*

license has two numbers," namely, 1) a "validation number" that "consists of a unique serial number (for this product) and a random number"; and 2) a "vendor's license number" that "consists of the validation number plus the [product identification number], [vendor identification number], *maximum number of license keys*, and options." *Id.* at 3:50–55 (emphasis added). Thus, Schoch limits the number of license keys available for a copy of the software (and its validation number) to a maximum number, i.e., a predetermined threshold. *Id.*; Ex. 1003 ¶ 103. Further, as discussed above, the evidence of record indicates that a person of ordinary skill in the art would understand that Schoch's license registration database only transmits a license key to the user's computer when the count for a validation number is less than the maximum number of license keys for that validation number. Ex. 1003 ¶ 107; Ex. 1005, 3:50–55, 3:61–4:15.

Second, Patent Owner responds that Schoch teaches allowing a licensor to determine the maximum number of computers on which a copy of the software can be installed, not the maximum number of activations.[4] PO Resp. 30–31 (citing Ex. 1005, 2:14–16, 2:39–42, 2:44–48); PO Sur-reply ii–iii. Patent Owner cites to a portion of Schoch that states the following:

> In the preferred embodiment the use of the licensed software is restricted to one computer; however, the licensor may choose to provide the licensee with *additional license(s)* for back-up purposes, and/or to also utilize the software on a specific number of additional computers—such as a portable computer or on multiple computers in homes, offices and other settings. Once the software has been loaded on the *maximum number of computers* allowed by the licensor, and until the licensee

[4] Patent Owner cites column 2, lines 14–16 of Schoch. PO Resp. 30 (citing Ex. 1005, 2:14–16). We address that portion of Schoch below in connection with Patent Owner's argument about Schoch's system identification number.

> obtains additional license(s), the software may be authorized to be utilized on additional computers in a demonstration mode.

Ex. 1005, 2:38–48 (emphasis added).

Patent Owner's argument is not persuasive. Patent Owner relies on one portion of Schoch that describes one embodiment.[5] PO Resp. 30–31; Ex. 1005, 2:38–48. Other portions of Schoch teach that a licensed copy of the software has a maximum number of license keys, and a user must obtain one of those license keys to activate the software. Ex. 1005, 3:50–55, 4:7–15. Thus, by limiting the number of license keys for a copy of the software, Schoch limits the number of activations for that copy. Ex. 1003 ¶ 103; Ex. 1034 ¶ 26.

Further, the portions of Schoch that teach limiting the number of activations for a licensed copy of the software are consistent with those that mention determining a maximum number of computers. Pet. Reply 12; Ex. 1034 ¶ 26. For example, even if a user chooses to use each license key to activate a copy of the software on a different computer, the number of computers on which the user could activate the software is still limited by the maximum number of license keys for that copy. Ex. 1034 ¶ 26. In other words, Schoch's maximum number of license keys limits the number of activations for a licensed copy of the software and, as a result, also determines the maximum number of computers for that copy. *Id.*

Third, Patent Owner responds that each license in Schoch provides for unlimited activations on the same computer. PO Resp. 31–33; PO Sur-reply

[5] At the oral hearing, Patent Owner acknowledged that the cited portion of Schoch is in the summary section "before the terms are fully defined." Tr. 36:15–37:2.

iii–iv. Patent Owner contends that Schoch teaches a "system identification number [that] is provided from hardware in the user's computer" and "is part of the registration key submitted to a license registration database." PO Resp. 31 (citing Ex. 1005, 4:1–7, 4:18–21). Patent Owner also contends that the system identification number "***does not change frequently***." *Id.* (quoting Ex. 1005, 4:25–28). According to Patent Owner, "a system identification number that does not change frequently permits a user to request and obtain a new license key for the same computer, such as after a system failure requiring a new installation." *Id.* at 31–32. Thus, Patent Owner concludes that "Schoch's guidance to avoid use of a number that changes frequently as the basis for the system identification number clearly contemplates multiple requests for license keys to permit reinstallations on the same computer system." *Id.* at 32.

Patent Owner's argument is not persuasive. Schoch teaches that a licensed copy of the software has a maximum number of license keys. Ex. 1005, 3:50–55. Schoch does not state that this limit has an exception for license keys requested by the same computer (e.g., after a system failure). *See id.* at 3:48–4:15. Schoch also does not indicate that it uses a computer's system identification number to create such an exception. *See id.* at 4:1–28. Rather, Schoch teaches that the license registration database receives a system identification number from a user's computer and then inserts the system identification number into a license key that is returned to the user's computer. *Id.* at 4:1–15. By aligning the license key with the system identification number for the user's computer, Schoch prevents the user from using the same license key to activate the software on another computer (i.e.,

without requesting another license key).[6] *Id.* at 2:14–17, 4:7–15; Ex. 1034 ¶¶ 31–32. In other words, Schoch uses the system identification number to enforce its limit on the number of license keys, not to provide an exception to that limit. Ex. 1034 ¶¶ 31–32.

Fourth, Patent Owner responds that each license in Schoch can activate a copy of the software on only one computer. PO Resp. 34–35 (citing Ex. 1005, 2:39–44). Patent Owner's argument is not persuasive. Schoch teaches that each license can activate a copy of the software on more than one computer. Ex. 1005, 3:61–4:15; Ex. 1034 ¶ 24. For example, Schoch states the following:

> At the time the end user acquires the software from the retailer or other source, the end user receives the validation number accompanying that software. To register the software and "unlock" it for use on his *computer(s)*, the user submits the validation number, together with a password chosen by the user to the software library through the registration option interface.

Ex. 1005, 3:61–67 (emphasis added). In other words, Schoch teaches that the unique validation number for one licensed copy of the software can activate the software on multiple computers. *Id.*; Ex. 1034 ¶ 24. Patent Owner does not address this particular teaching of Schoch. *See* PO Resp. 34–35.

[6] Patent Owner argues that Petitioner's declarant, Dr. Golbeck, provides contradictory statements about the system identification number in her initial and rebuttal declarations. PO Sur-reply iv (citing Ex. 1003 ¶ 86; Ex. 1034 ¶ 34). We disagree. In both declarations, Dr. Golbeck explains that Schoch does not use the system identification number to determine whether to issue a license key, but, rather, uses the system identification number to align a license key with a user's computer. Ex. 1003 ¶ 86; Ex. 1034 ¶¶ 31–32.

Fifth, Patent Owner responds that Schoch's maximum number of license keys is an overall limit on the number of license keys for the software product "as a whole," not for an individual copy of the software. *Id.* at 35–36. Patent Owner contends that "Schoch describes the components of the vendor's license number as consisting of 'the validation number plus the PID, VID, maximum number of license keys, and options.'" *Id*. at 36 (quoting Ex. 1005, 3:53–55). Patent Owner also contends that "[t]he PID is a product identification number that describes the product" and "the VID is a vendor identification number," both of which "are created by the service provider." *Id.* (citing Ex. 1005, 3:22–25). Thus, according to Patent Owner, "by its proximity with the PID and VID, the maximum number of license keys . . . [is] an overall limit on [the] number of license keys for a product or for a vendor, as opposed to for an individual licensee." *Id.*

Patent Owner's argument is not persuasive. Patent Owner's argument is that because some parameters in the vendor's license number are vendor specific (and not license specific), then all the parameters in the vendor's license number must be vendor specific. *Id.* We disagree. Schoch teaches that a "vendor's license number consists of the *validation number* plus the PID, VID, maximum number of license keys, and options." Ex. 1005, 3:53–55 (emphasis added). Schoch also teaches that there is "a *unique validation number* for *each copy* of the software to be separately licensed." *Id.* at 2:53–58 (emphasis added). In other words, Schoch teaches that the vendor's license number includes a validation number that is unique to a specific licensed copy of the software. *Id.* at 2:53–58, 3:53–55. As a result, Schoch's teachings do not support Patent Owner's argument that the

maximum number of license keys must be a vendor specific parameter simply because it is included in the vendor's license number.

Further, Petitioner's declarant, Dr. Golbeck, explains that a person of ordinary skill in the art would not interpret Schoch as teaching that the maximum number of license keys is an overall limit for the software product as a whole. Pet. Reply 16–17; Ex. 1034 ¶ 37. Specifically, Dr. Golbeck explains that interpreting the maximum number of license keys as an overall limit would "lead to an unusual scenario in which the software vendor sought to purposely depress use of its software products overall (across all licensees)," and there is "no evidence for such a peculiar scheme in Schoch's disclosure." Ex. 1034 ¶ 37.

Patent Owner argues in the Sur-reply that Petitioner's Reply "conced[es] that Schoch's scheme is admittedly ***computer specific***, such that each license is tied to only one specific computer and will not operate on another." PO Sur-reply i–ii. We disagree. As discussed above, a license has a unique validation number that may be used to activate the software on multiple computers. Ex. 1005, 3:61–67. Thus, a license is not computer specific. *Id.*; Ex. 1034 ¶ 29. However, a license also has a maximum number of license keys. Ex. 1005, 3:50–55. As explained above, a license key is computer specific. *Id.* at 2:14–17, 4:7–15; Ex. 1034 ¶¶ 31–32. But because a user must obtain a new license key for each activation, whether on the same computer (e.g., after a system failure) or on an additional computer, Schoch's maximum number of license keys limits the number of activations for a copy of the software. Ex. 1005, 3:61–4:15; Ex. 1034 ¶ 26.

Patent Owner also argues in the Sur-reply that "limiting a number of ***allowed*** activations does not disclose a limit based, instead, on a number of

activation ***attempts***." PO Sur-reply v; *see also id.* at viii ("a proposed combination that allegedly considers the 'number of activations,' as opposed to the claimed number of ***activation attempts***" (citation omitted)). However, Patent Owner's Response and Petitioner's Reply consistently focus on an alleged distinction between activations and computers, not between activations and activation attempts. *See, e.g.*, PO Resp. 30–31 ("the number of ***computers*** on which the software is installed, not the number of ***activations***"), 31 ("subsequent activations on the same computer"), 35 ("single activation for each license"); Pet. Reply 10–19. Thus, Patent Owner's argument in the Sur-reply regarding an alleged distinction between activations and activation attempts is not proper because it does not respond to an argument in the Reply, but rather, proceeds in a new direction. *See* Consolidated Trial Practice Guide 73–74 (Nov. 2019) ("TPG"), *available at* https://www.uspto.gov/TrialPracticeGuideConsolidated; *see also* Paper 8, 7 ("Patent Owner is cautioned that any arguments for patentability not raised in the response may be deemed waived.").

Moreover, even if it had been timely, Patent Owner's argument would not have been persuasive. Schoch teaches that a user submits the validation number for a licensed copy of the software to the license registration database in order to obtain a license key that activates the software. Ex. 1005, 3:61–4:15. Schoch also teaches that each licensed copy of the software (and thus each validation number) has a maximum number of license keys. *Id.* at 3:50–55. Wyman teaches counting a license request immediately upon receipt, and, thus, teaches counting every activation attempt regardless of whether it is successful or unsuccessful. Ex. 1003 ¶ 105; Ex. 1006, 17:20–35. The evidence of record indicates that it would

have been obvious to one of ordinary skill in the art to combine the cited teachings of Wyman with Schoch so that Schoch's license registration database updates a count of the number of activation attempts (whether successful or not) for a validation number associated with a copy of software until the count reaches the maximum number of license keys for that validation number. Ex. 1003 ¶¶ 85, 104–105.

Claim 1 recites "said user's computer being connected to said communications network and designated to storably receive said service data." Ex. 1001, 9:27–29. Schoch teaches that the user's computer connects to the remote license registration database over the Internet and stores the received license key. Pet. 42–43; Ex. 1005, 4:3–12. Patent Owner does not dispute that the Schoch and Wyman combination teaches this limitation of claim 1.

3. Claims 15, 24, 30, and 36

Independent claims 15, 24, 30, and 36 recite limitations similar to those discussed above for claim 1. Ex. 1001, 10:38–59, 11:44–12:4, 12:37–65, 13:27–14:17. Petitioner relies on the same arguments and evidence discussed above for claim 1 to show that claims 15, 24, 30, and 36 would have been obvious. Pet. 46–52. Other than the arguments discussed above for claim 1, Patent Owner does not separately dispute that the Schoch and Wyman combination teaches the limitations of claims 15, 24, 30, and 36. *See* PO Resp. 39–40.

4. Claim 4

Claim 4 depends from claim 1, and recites "wherein said user data includes product information relating to said software application installed on the data storage element of the user's computer." Ex. 1001, 9:37–40.

Schoch teaches that to activate a licensed copy of the software application, a user submits a registration key that includes a unique validation number. Pet. 28–33; Ex. 1005, 3:64–4:2. Schoch also teaches that the unique validation number includes information identifying the product. Pet. 44; Ex. 1005, 6:13–17. Other than the arguments discussed above for claim 1, Patent Owner does not separately dispute that the Schoch and Wyman combination teaches the limitation of claim 4. *See* PO Resp. 41–42.

5. Claims 9 and 20

Claim 9 depends from claim 1, and recites "wherein the step of selectively transmitting said service data is an uploading event in which said service data is automatically transferred from said remote service provider and storably received by the user's computer system." Ex. 1001, 9:59–64. Claim 20 depends from claim 15, and recites "wherein said service data is transferred by said remote service computer system without human intervention and received by said user computer system." *Id.* at 11:21–24. Schoch teaches that the license registration database transmits a license key to the user's computer, and the user's computer stores the received license key. Pet. 45, 47; Ex. 1005, 4:7–15, 5:1–4. Schoch also teaches the license registration process is fully automated. Pet. 45, 47; Ex. 1005, 2:27–30, Fig. 3. Other than the arguments discussed above for claim 1, Patent Owner does not separately dispute that the Schoch and Wyman combination teaches the limitations of claims 9 and 20. *See* PO Resp. 41–42.

6. Claim 27

Claim 27 depends from claim 24, and recites "wherein said received service data is stored within the data storage element of the user's computer." Ex. 1001, 12:14–16. Schoch teaches that the user's computer

stores the received license key in its system registry. Pet. 43, 49; Ex. 1005, 4:7–15, 5:1–4. Other than the arguments discussed above for claim 1, Patent Owner does not separately dispute that the Schoch and Wyman combination teaches the limitation of claim 27. *See* PO Resp. 41–42.

7. Reasons for Combining Schoch and Wyman

Petitioner presents evidence that a person of ordinary skill in the art would have had reason to combine the cited teachings of Schoch and Wyman. Pet. 17–24 (citing Ex. 1003 ¶¶ 79–87). Specifically, Schoch and Wyman relate to the same field of endeavor as the '696 patent, namely, digital rights management. Pet. 17–20; Ex. 1001, 1:8–16; Ex. 1003 ¶ 34; Ex. 1005, 1:5–9; Ex. 1006, 1:23–26; Ex. 1034 ¶ 13. Schoch and Wyman also are reasonably pertinent to a particular problem with which the inventors of '696 patent were involved, namely, limiting the use of licensed software. Pet. 19; Ex. 1001, 1:26–28, 2:3–7; Ex. 1003 ¶ 80; Ex. 1005, 1:5–9; Ex. 1006, 1:23–26.

It would have been obvious to combine the cited teachings of Wyman with Schoch so that Schoch's license registration database counts the number of activation attempts for a validation number associated with a copy of a software application until the count reaches the maximum number of license keys for that validation number. Pet. 23–24, 36–37; Ex. 1003 ¶¶ 85, 104. Doing so would have been obvious because it would have involved the mere application of Wyman's known technique to Schoch's system in a manner that would yield predictable results. Pet. 18–19; Ex. 1003 ¶ 79. Further, combining the cited teachings of Schoch and Wyman would have improved Schoch by simplifying the administration of its software licenses. Pet. 21–22; Ex. 1003 ¶¶ 82, 84.

Patent Owner responds with several arguments regarding the reasons for combining Schoch and Wyman. PO Resp. 21–27, 34–35, 37–38; PO Sur-reply vi–vii. In general, Patent Owner contends that "Schoch and Wyman, while both having teachings relating to, at an extremely high level, restricting use of software, in fact address different problems and employ entirely different techniques." PO Resp. 21–22. Thus, Patent Owner concludes that Petitioner fails "to consider how a POSITA would understand Wyman and Schoch ***as a whole***." *Id.* at 24.

"The Supreme Court's decision in *KSR* . . . directs us to construe the scope of analogous art broadly." *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010). As discussed above, the evidence of record indicates that Schoch and Wyman relate to the same field of endeavor as the '696 patent, namely, digital rights management, and also are reasonably pertinent to a particular problem with which the inventors of '696 patent were involved, namely, limiting the use of licensed software. Pet. 17–20; Ex. 1001, 1:8–16, 1:26–28, 2:3–7; Ex. 1003 ¶¶ 34, 80; Ex. 1005, 1:5–9; Ex. 1006, 1:23–26; Ex. 1034 ¶ 13. Although Patent Owner identifies several alleged differences between Schoch and Wyman, Patent Owner does not explain specifically why Schoch or Wyman are not analogous art with respect to the '696 patent.[7] *See* PO Resp. 21–27, 34–35, 37–38; PO Sur-reply vi–vii.

We address each of Patent Owner's arguments regarding the alleged differences between Schoch and Wyman in detail below. For the reasons discussed below, none of the alleged differences demonstrate that the

[7] At the oral hearing, Patent Owner acknowledged that it does not dispute that Schoch and Wyman are analogous art. Tr. 28:13–29:5.

teachings of Schoch and Wyman relied on by Petitioner are incompatible or that a person of ordinary skill in the art would have been deterred from the proposed combination.

First, Patent Owner responds that "Schoch teaches a system to deter the making of unauthorized copies of standalone software products, which may be distributed, for example, on floppy disks or CD-ROM's." PO Resp. 23 (citing Ex. 1005, 1:5–9, 1:14, 1:54, 2:20–24, 2:37–44, 4:18–25, 5:12); *see* PO Sur-reply vi. Patent Owner contends that, in contrast, "the Wyman reference does not relate to preventing unauthorized copying of standalone licensed software products on individual computer systems, but is intended primarily for software use[d] in networks, and not on standalone computer systems." PO Resp. 23–24 (citing Ex. 1006, 2:3–6, 2:8–15); *see* PO Sur-reply vi. Patent Owner also contends that Wyman's license includes variables that relate specifically to a network environment. PO Resp. 26, 37–38 (citing Ex. 1006, 12:2–59, Fig. 2).

Patent Owner's argument is not persuasive. Wyman does not teach that its license management system is limited to just networked (or distributed) computing systems. Pet. Reply 3–4. Rather, Wyman states the following:

> For example, the license management system should allow for simultaneous use of a wide variety of different licensing alternatives, instead of being rigidly structured to permit only one or only a few. . . . For example, a software product may be licensed *to a single individual for use on a single CPU, or to an organization for use by anyone on a network*, or for use by any users at terminals in a cluster, or only for calls from another specific licensed product, or any of a large number of other alternatives.

Ex. 1006, 1:52–64 (emphasis added). Wyman also teaches that "[a]lthough shown in FIG. 1 as operating on a distributed system, in the simplest case the license management facility of the invention may be operated on a single CPU." *Id.* at 10:58–61. Thus, Wyman's teachings are applicable to standalone software products on individual computer systems, not just networked (or distributed) computing systems. Ex. 1034 ¶¶ 16–17.

Second, Patent Owner responds that "Schoch is not concerned with individual features of software packages." PO Resp. 25. Patent Owner contends that, in contrast, Wyman "is concerned with the trend that software products were increasingly fragmented into specific functions," and "indicates that it would be advantageous to distribute the entire combination as one package, then allow the customer to license features separately." *Id.* at 24 (citing Ex. 1006, 2:35–40, 2:42–52).

Patent Owner's argument is not persuasive. Wyman does not teach that its license management system is limited to just individual features of software packages. Pet. Reply 4–5. Rather, Wyman states the following:

> The terms "program" and "licensed product" are used in reference to the element 17, but it is understood that the products being administered may be segments of programs, or functions or features called by another program, or even merely data (such as printer fonts), as well as *complete stand-alone applications programs*.

Ex. 1006, 9:54–60 (emphasis added). Thus, Wyman's teachings are applicable to complete software products, not just individual features. Ex. 1034 ¶ 18.

Third, Patent Owner responds that "Schoch is not concerned with interrelationships of multiple different software products of a licensor used in the same system." PO Resp. 25. Patent Owner contends that, in contrast,

"Wyman explains that an approach called 'transitive licensing' means that the right to use one product or feature implies a right to use one or more other products or licenses." *Id.* (citing Ex. 1006, 2:68–3:10, 3:18–48). Patent Owner also contends that Wyman's license includes variables that relate specifically to the use of multiple products in combination. PO Resp. 26, 37–38 (citing Ex. 1006, 12:2–59, Fig. 2).

Patent Owner's argument is not persuasive. Wyman does not teach that its license management system is limited to just transitive licensing. Pet. Reply 6. Specifically, Wyman states that "transitive licensing is an important feature *of one embodiment*." Ex. 1006, 8:4–5 (emphasis added). Thus, Wyman's teachings are applicable to other types of licensing, not just transitive licensing. Ex. 1034 ¶ 19.

Fourth, Patent Owner responds that Schoch "provide[s] for perpetual licenses on individual computers." PO Resp. 26; *see id.* at 34–35; PO Sur-reply vi. Patent Owner contends that, in contrast, "Wyman requires the license to be validated each time the software is started, as opposed to a single instance for each licensed computer." PO Resp. 26 (citing Ex. 1006, 6:49–61, 7:8–15); *see* PO Sur-reply vi.

Patent Owner's argument is not persuasive. As discussed above, Petitioner proposes combining Wyman's teaching of updating a count of the number of license requests for a copy of a software application with Schoch so that Schoch's license registration database updates a count of the number of activation attempts for a validation number until the count reaches the maximum number of license keys for that validation number. Pet. 23–24, 36–37; Ex. 1003 ¶¶ 85, 104. Although Wyman's count pertains to the number of requests to run the software and Schoch's count pertains to the

number of requests to activate the software, the administrative task of updating the count would be "highly similar" in both contexts. Pet. 19–20; Ex. 1003 ¶ 80. Thus, the difference between Schoch and Wyman would not have deterred a person of ordinary skill in the art from the proposed combination. Ex. 1003 ¶ 80.

Patent Owner does not specifically argue in the Response or Sur-reply that Schoch or Wyman teaches away from the claimed invention. *See* PO Resp. 21–27, 34–35, 37–38; PO Sur-reply vi–vii. But, at the oral hearing, Patent Owner argued that "when you look at the entirety of Wyman, it teaches away from combining with Schoch." Tr. 29:7–17. Patent Owner's argument is not timely because it was presented for the first time at the oral hearing. *See* PO Resp. 21–27, 34–35, 37–38; PO Sur-reply vi–vii; Tr. 29:7–17; TPG, 85–86 ("During an oral hearing, a party . . . may only present arguments relied upon in the papers previously submitted."). Moreover, Patent Owner's argument is not persuasive. Although Patent Owner identifies several alleged differences between Schoch and Wyman, Patent Owner does not identify any portion of Schoch or Wyman that criticizes, discredits, or otherwise discourages investigation into the claimed invention. *See* PO Resp. 21–27, 34–35, 37–38; PO Sur-reply vi–vii; *Meiresonne v. Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017).

At the oral hearing, Patent Owner also argued that Petitioner proposes "that Wyman []as a whole should be combined with Schoch," but does not show that doing so would have been obvious. Tr. 26:18–28:8. Patent Owner's argument is not timely because it was presented for the first time at

the oral hearing.[8] *See* PO Resp. 21–27, 34–35, 37–38; PO Sur-reply vi–vii; Tr. 26:18–28:8; TPG, 85–86. Moreover, Patent Owner's argument is not persuasive. Petitioner asserts that because "Schoch leaves the details of the service provider's regulation of software usage . . . to the discretion of a POSITA," a person of ordinary skill in the art would have considered Wyman's "teachings regarding the administration of licenses with a usage limit" to provide those details. Pet. 18. But Petitioner does not propose combining every such detail from Wyman into Schoch. *See id.* at 17–24. Rather, as discussed above, Petitioner proposes combining Wyman's teaching of updating a count of the number of license requests for a copy of a software application with Schoch so that Schoch's license registration database updates a count of the number of activation attempts for a validation number until the count reaches the maximum number of license keys for that validation number. Pet. 23–24, 36–37; Ex. 1003 ¶¶ 85, 104.

8. Summary

For the foregoing reasons, Petitioner has shown by a preponderance of the evidence that claims 1, 4, 9, 15, 20, 24, 27, 30, and 36 would have been obvious over Schoch and Wyman.

[8] Patent Owner argues in the Response that Petitioner fails to consider the teachings of Schoch and Wyman "as a whole" (PO Resp. 24), but does not argue that Petitioner proposes combining Wyman as a whole with Schoch (*see id.* at 21–27, 34–35, 37–38). Rather, Patent Owner acknowledges in the Response that Petitioner proposes combining "selected features" of Wyman with Schoch. *Id.* at 26–27.

E. Ground 1B – Obviousness of Claims 3, 25, 31, and 37 over Schoch, Wyman, and Capps

Petitioner argues that claims 3, 25, 31, and 37 would have been obvious over Schoch, Wyman, and Capps. Pet. 2, 52. For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that claims 3, 25, 31, and 37 would have been obvious over Schoch, Wyman, and Capps.

1. Claim 3

Claim 3 depends from claim 1, and recites "wherein said user data includes identifying data that identifies the user." Ex. 1001, 9:34–36. Capps teaches a registration process for an online service in which a user submits a valid user identification. Pet. 58; Ex. 1008, 6:39–41. As discussed in more detail below, it would have been obvious to combine the cited teachings of Capps with Schoch and Wyman so that Schoch's registration key includes a user identification. Pet. 55–56; Ex. 1003 ¶ 147. Other than the arguments discussed above for claim 1, Patent Owner does not separately dispute that the Schoch, Wyman, and Capps combination teaches the limitation of claim 3. *See* PO Resp. 41–42.

2. Claims 25, 31, and 37

Claim 25 depends from claim 24, and recites "archiving user data received from users over the communications network in a data storage element of the remote service system." Ex. 1001, 12:5–8. Claim 31 depends from claim 30, and recites "archiving user data received from users." *Id.* at 12:66–67. Claim 37 depends from claim 36, and recites "archiving user data received from users." *Id.* at 14:18–19. Capps teaches a user registry that maintains a list of user identifications. Pet. 59; Ex. 1008, 7:5–8, 8:63–9:1. As discussed in more detail below, it would have been

obvious to combine the cited teachings of Capps with Schoch and Wyman so that Schoch's license registration database includes a user registry that stores the user identifications received from users. Pet. 55–56; Ex. 1003 ¶ 147. Other than the arguments discussed above for claim 1, Patent Owner does not separately dispute that the Schoch, Wyman, and Capps combination teaches the limitation of claims 25, 31, and 37. *See* PO Resp. 41–42.

3. Reasons for Combining Schoch, Wyman, and Capps

Petitioner presents evidence that a person of ordinary skill in the art would have had reason to combine the cited teachings of Capps with Schoch and Wyman. Pet. 54–58 (citing Ex. 1003 ¶¶ 146–152). Specifically, Capps relates to the same field of endeavor as the '696 patent, namely, digital rights management. Pet. 57–58; Ex. 1003 ¶ 152; Ex. 1001, 1:8–16; Ex. 1008, 2:3–7. It would have been obvious to combine the cited teachings of Capps with Schoch and Wyman so that Schoch's registration key includes a user identification and Schoch's license registration database includes a user registry that stores the user identifications received from users. Pet. 55–56; Ex. 1003 ¶ 147. Doing so would have been obvious because it would 1) allow a software vendor to collect additional useful information; and 2) would have been the mere application of Capps's known techniques to the Schoch and Wyman combination in a manner that would yield predictable results. Pet. 56–58; Ex. 1003 ¶¶ 149, 152. Other than the arguments discussed above for the Schoch and Wyman combination, Patent Owner does not separately dispute that it would have been obvious to combine the cited teachings of Schoch, Wyman, and Capps.

4. Summary

For the foregoing reasons, Petitioner has shown by a preponderance of the evidence that claims 3, 25, 31, and 37 would have been obvious over Schoch, Wyman, and Capps.

F. Ground 1C – Obviousness of Claims 1, 4, 9, 15, 20, 24, 27, 30, and 36 over Schoch, Wyman, and Clark

Petitioner argues that claims 1, 4, 9, 15, 20, 24, 27, 30, and 36 would have been obvious over Schoch, Wyman, and Clark. Pet. 2, 60. For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that claims 1, 4, 9, 15, 20, 24, 27, 30, and 36 would have been obvious over Schoch, Wyman, and Clark.

1. Claim 1

Claim 1 recites, *inter alia*, "counting the number of times an attempt has been made to obtain said service data in order to activate at least part of the functionality of said software application assigned to such unique identification code." Ex. 1001, 9:17–20. Except for this "counting" limitation, Petitioner relies on the same arguments and evidence discussed above for the Schoch and Wyman combination. Pet. 64. As discussed above, Schoch teaches that to activate a licensed copy of a software application, a user submits a registration key that includes a unique validation number, a password, and a system identification number. *Id.* at 28–33; Ex. 1005, 3:61–4:7. Petitioner argues that "to the extent there is any question as to the role of the 'password' in verifying an activation request in the Schoch-Wyman system . . . , Clark demonstrates that a system which does not rely on transmission of a password from client to server would still have been obvious." Pet. 63.

Specifically, Clark teaches that a user key is encrypted with a password, and a user must enter the password to decrypt the key *before* it is transmitted to a license server. Pet. 61, 63–64; Ex. 1007, 26:26–56, 28:60–29:21, Fig. 13. As discussed in more detail below, it would have been obvious to combine the cited teachings of Clark with Schoch and Wyman so that a user enters a password to decrypt Schoch's validation number before it is included in the registration key and transmitted to the license registration database. Pet. 64; Ex. 1003 ¶ 162. Thus, in the Schoch, Wyman, and Clark combination, the registration key does not include a password. Pet. 64; Ex. 1003 ¶ 162. Other than the arguments discussed above for the Schoch and Wyman combination, Patent Owner does not separately dispute that the Schoch, Wyman, and Clark combination teaches the limitations of claim 1.

2. Reasons for Combining Schoch, Wyman, and Clark

Petitioner presents evidence that a person of ordinary skill in the art would have had reason to combine the cited teachings of Clark with Schoch and Wyman. Pet. 64–66 (citing Ex. 1003 ¶¶ 162–167). Specifically, Clark relates to the same field of endeavor as the '696 patent, namely, digital rights management. *Id.* at 66; Ex. 1001, 1:8–16; Ex. 1003 ¶ 167; Ex. 1007, 1:6–11, 28:60–29:21. It would have been obvious to combine the cited teachings of Clark with Schoch and Wyman so that a user enters a password to decrypt Schoch's validation number before it is included in the registration key and transmitted to the license registration database. Pet. 64; Ex. 1003 ¶ 162. Doing so would have been obvious because it would 1) allow the validation number to be stored in an encrypted form at the user's device; and 2) simplify the administration tasks performed by the license registration database. Pet. 65; Ex. 1003 ¶¶ 164, 166. Other than the arguments

discussed above for the Schoch and Wyman combination, Patent Owner does not separately dispute that it would have been obvious to combine the cited teachings of Schoch, Wyman, and Clark.

3. Summary

For the foregoing reasons, Petitioner has shown by a preponderance of the evidence that claims 1, 4, 9, 15, 20, 24, 27, 30, and 36 would have been obvious over Schoch, Wyman, and Clark.

G. Ground 1D – Obviousness of Claims 3, 25, 31, and 37 over Schoch, Wyman, Clark, and Capps

Petitioner argues that claims 3, 25, 31, and 37 would have been obvious over Schoch, Wyman, Clark, and Capps. Pet. 2, 66. Petitioner relies on the same arguments and evidence discussed above for the Schoch, Wyman, and Capps combination and the Schoch, Wyman, and Clark combination to show that claims 3, 25, 31, and 37 would have been obvious. *Id.* at 66–67. Other than the arguments discussed above, Patent Owner does not separately dispute that claims 3, 25, 31, and 37 would have been obvious over Schoch, Wyman, Clark, and Capps. Thus, for the same reasons discussed above, Petitioner has shown by a preponderance of the evidence that claims 3, 25, 31, and 37 would have been obvious over Schoch, Wyman, Clark, and Capps. *See* Sections II.D–II.F.

H. Constitutionality

Patent Owner argues that Administrative Patent Judges ("APJs") "are principal officers under the Appointments Clause of the Constitution . . . , but undisputedly are not appointed through the constitutionally-mandated mechanism of appointment for principal officers." PO Resp. 42. Patent Owner also argues that the Federal Circuit's decision in *Arthrex, Inc. v. Smith & Nephew, Inc.*, 941 F.3d 1320 (Fed. Cir. 2019), *cert. granted sub*

nom. United States v. Arthrex, Inc., 2020 WL 6037206 (Oct. 13, 2020), "impermissibly re-writes the statutes governing APJs," and that "the ability to remove APJs at will is insufficient to render APJs inferior officers." PO Resp. 42, 45. We decline to consider Patent Owner's constitutional challenge as the Federal Circuit addressed this issue in *Arthrex*, 941 F.3d at 1325.

III. CONCLUSION[9]

Petitioner has shown by a preponderance of the evidence that claims 1, 3, 4, 9, 15, 20, 24, 25, 27, 30, 31, 36, and 37 of the '696 patent are unpatentable.

In summary:

Claims	35 U.S.C. §	References/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1, 4, 9, 15, 20, 24, 27, 30, 36	103	Schoch, Wyman	1, 4, 9, 15, 20, 24, 27, 30, 36	
3, 25, 31, 37	103	Schoch, Wyman, Capps	3, 25, 31, 37	
1, 4, 9, 15, 20, 24, 27,	103	Schoch, Wyman, Clark	1, 4, 9, 15, 20, 24, 27, 30, 36	

[9] Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

Claims	35 U.S.C. §	References/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
30, 36				
3, 25, 31, 37	103	Schoch, Wyman, Clark, Capps	3, 25, 31, 37	
Overall Outcome			1, 3, 4, 9, 15, 20, 24, 25, 27, 30, 31, 36, 37	

IV. ORDER

It is hereby

ORDERED that claims 1, 3, 4, 9, 15, 20, 24, 25, 27, 30, 31, 36, and 37 of the '696 patent are shown unpatentable; *and*

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

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