

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC. and FORTINET, INC.,
Petitioner,

v.

INFOEXPRESS INC.,
Patent Owner.

IPR2024-00675
Patent 7,523,484 B2

Before CHRISTOPHER M. KAISER, JOHN A. HUDALLA, and
AARON W. MOORE, *Administrative Patent Judges*.

KAISER, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. § 42.4

I. INTRODUCTION

A. Background and Summary

Cisco Systems, Inc. and Fortinet, Inc. (collectively, “Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–6, 11–13, 15–19, and 23–25 (“the challenged claims”) of U.S. Patent No. 7,523,484 B2 (Ex. 1501, “the ’484 patent”). Petitioner also filed an Explanation Regarding the Necessity for Multiple Petitions, in which Petitioner explained why it filed two petitions—in this case and in IPR2024-00679—challenging the ’484 patent. Paper 4. InfoExpress Inc. (“Patent Owner”) filed a Preliminary Response (Paper 8, “Prelim. Resp.”). With our authorization, Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 12, “Prelim. Reply”), and Patent Owner filed a Preliminary Sur-Reply (Paper 13, “Prelim. Sur-Reply”).

We have authority, acting on the designation of the Director, to determine whether to institute an *inter partes* review under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). *Inter partes* review may not be instituted unless “the information presented in the petition filed under [35 U.S.C.] section 311 and any response filed under [35 U.S.C.] section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a) (2018). “When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.108(a) (2023).

For the reasons set forth below, upon considering the briefing and the evidence of record, we determine that the information presented in the Petition establishes a reasonable likelihood that Petitioner will prevail with

respect to at least one of the challenged claims, and we institute *inter partes* review on all of the challenged claims based on all of the grounds identified in the Petition.

B. Real Parties-in-Interest

Petitioner identifies Cisco Systems, Inc. and Fortinet, Inc. as the real parties-in-interest. Pet. 1. Patent Owner identifies InfoExpress Inc. as the real party in interest. Paper 6, 2.

C. Related Matters

The parties identify the following related court proceedings: *InfoExpress Inc. v. Cisco Systems, Inc.*, Case No. 4:23-cv-02698-YGR (N.D. Cal.), and *InfoExpress Inc. v. Fortinet, Inc.*, Case No. 4:23-cv-04389-YGR (N.D. Cal.). Pet. 1; Paper 6, 2. In addition, the parties note that the '484 patent is also being challenged concurrently in IPR2024-00679. Paper 4; Paper 6, 2.

D. The '484 Patent

The '484 patent is titled “Systems and Methods of Controlling Network Access” and issued on April 21, 2009. Ex. 1501, codes (45), (54). It is directed to “[a] new approach to network security.” *Id.* at code (57).

The '484 patent describes “[s]everal approaches to controlling external access to computing networks” that serve the goals of “limiting access to authorized users and assuring that computing devices employed by these users do not include malicious computing code.” *Id.* at 1:22–26. “A first level of access control is achieved by requiring authentication of a user.” *Id.* at 1:31–32. “A greater level of access control may be achieved by including a gatekeeper between the secure network and the access device.”

Id. at 1:53–55. Figure 1 of the '484 patent depicts such a gatekeeper and is reproduced below.

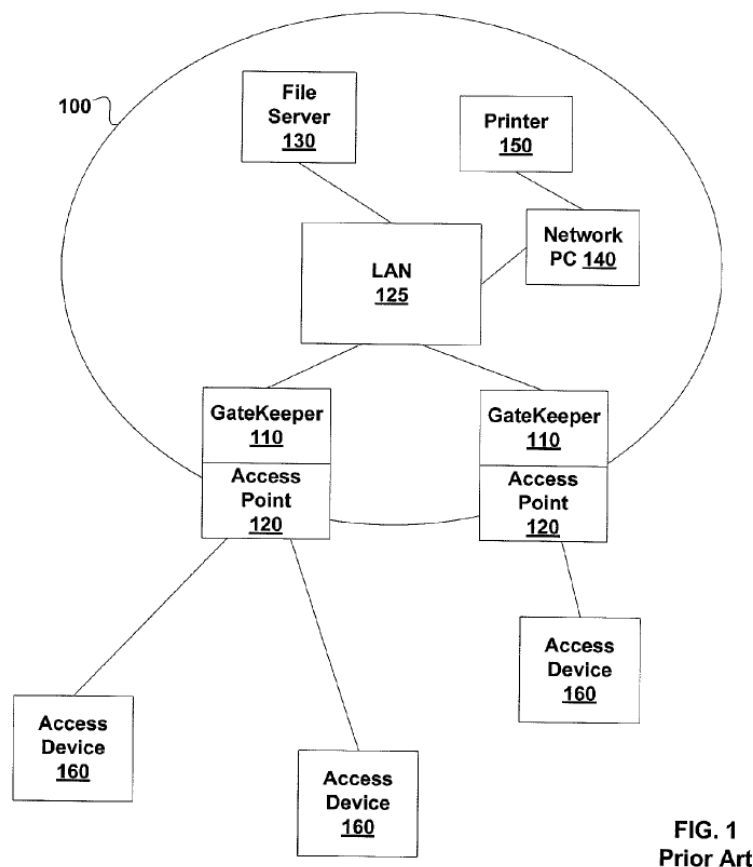


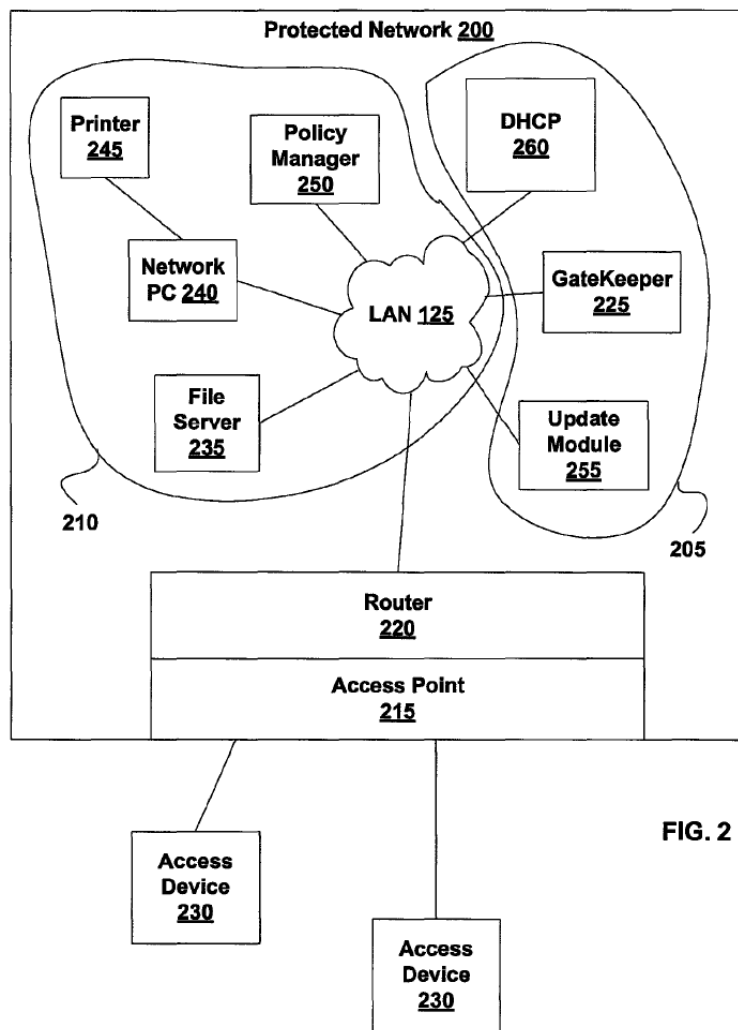
FIG. 1
Prior Art

Id. at Fig. 1. In Figure 1, access devices 160 communicate with access points 120, each of which connects with LAN 125 within secure network 100 through gatekeeper 110. *Id.* at 1:57–2:13. “A disadvantage of the use of GateKeeper 110, as practiced in the prior art, is that all communications between Access Device 160 and LAN 125 pass through GateKeeper 110,” which “can be a significant burden.” *Id.* at 2:26–31.

The '484 patent seeks to remove this disadvantage using “a protected network physically or logically divided into a restricted subset and one or more less-restricted subsets.” *Id.* at 2:48–50. “Requests from an access device for access to the less-restricted subset are first passed to the restricted subset,” and the gatekeeper is “then used to apply security policies to the

access device and if [the] security policies are satisfied, the access device is granted access to a less-restricted subset of the protected network.” *Id.* at 2:52–56. “To grant access, the gatekeeper sends commands to the access point in order to reconfigure a communication port to which the access device is connected.” *Id.* at 3:20–22. “The reconfiguration typically includes reassigning the communication port from the restricted VLAN to the less-restricted VLAN.” *Id.* at 3:22–25.

Figure 2 of the ’484 patent depicts “a protected network, according to various embodiments of the invention.” *Id.* at 4:66–67. That figure is reproduced below.



Id. at Fig. 2. “Protected Network 200 is either physically or logically divided into a Restricted Subset 205 and a Less-Restricted Subset 210.” *Id.* at 5:52–54. Access devices 230 can connect to the protected network “through an Access Point 215 . . . and an optional Router 220.” *Id.* at 5:55–57. “[T]his access is under the control of a GateKeeper 225,” which is located within restricted subset 205 and which “is configured to enforce a security policy against” the access device. *Id.* at 5:57–60, Fig. 2.

E. Illustrative Claim

Petitioner challenges claims 1–6, 11–13, 15–19, and 23–25 of the ’484 patent. Claim 1 is independent and illustrative; it is reproduced below.

1. A network gatekeeper comprising:
 - at least one security policy including requirements that must be satisfied before an access device is granted access to a less-restricted subset of a protected network;
 - a policy auditor configured to audit the access device using the at least one security policy, in response to a request to access the less-restricted subset of the protected network, the request being sent from the access device to the gatekeeper via a communication device; and
 - an access control configured to reconfigure the communication device such that data sent from the access device is received by the less-restricted subset of the protected network rather than merely a restricted subset of the protected network, if the audit results in a determination that the access device meets the requirements of the at least one security policy, the restricted subset of the protected network including the gatekeeper.

Ex. 1501, 16:2–19.

F. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability (Pet. 3, 13–80):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–5, 11, 12, 16–19, 23–25	103	Krantz ¹
1–6, 11–13, 15–19, 23–25	103	Krantz, Herrmann ²

In support of its unpatentability arguments, Petitioner relies on the declaration of Henry Houh, Ph.D. (Ex. 1503).

II. ANALYSIS

A. Legal Standards

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under 35 U.S.C. § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) if in evidence, “secondary considerations” of non-obviousness, such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the U.S. Court of Appeals for the Federal Circuit has repeatedly emphasized that “it is error to reach a conclusion of obviousness until all those factors are considered,” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016). Because Patent Owner does not address objective

¹ US 2004/0111520 A1, published June 10, 2004 (Ex. 1505).

² US 2004/0107360 A1, published June 3, 2004 (Ex. 1506).

evidence of non-obviousness, we focus solely on the first three *Graham* factors.

B. Level of Ordinary Skill in the Art

The level of ordinary skill in the pertinent art at the time of the invention is a factor in how we construe patent claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). It is also one of the factors we consider when determining whether a patent claim is obvious over the prior art. *See Graham*, 383 U.S. at 17–18.

Factors pertinent to a determination of the level of ordinary skill in the art include “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696–697 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). “Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case.” *Id.*

Petitioner contends that one of ordinary skill in the art “would have had a bachelor’s degree in computer science, computer engineering, or an equivalent, and two years of relevant experience in networking and network security, and related fields.” Pet. 4. Petitioner also asserts that “[l]ack of professional experience can be remedied by additional education, and vice versa.” *Id.* Patent Owner argues that a person of ordinary skill in the art “would have had a bachelor’s degree in computer science, computer engineering, or electrical engineering and at least three years of experience

in networking operating systems and cybersecurity.” Prelim. Resp. 1. Alternatively, Patent Owner argues that a person of ordinary skill in the art would have had “a master’s degree in one of the foregoing and at least two years of experience in the aforementioned fields.” *Id.* On the present record, neither party explains why the outcome of this case would be affected by the adoption of any of the proffered definitions of a person of ordinary skill in the art.

For purposes of this Decision, we adopt Petitioner’s assessment of the level of ordinary skill in the art, as, on the present record, it appears consistent with the ’484 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. Claim Construction

We apply the same claim construction standard used in the federal courts—in other words, the claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), which is articulated in *Phillips*. *See* 37 C.F.R. § 42.100(b). Under the *Phillips* standard, the “words of a claim ‘are generally given their ordinary and customary meaning,’” which “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips*, 415 F.3d at 1312–13.

Petitioner argues that “a [person of ordinary skill in the art] would find the challenged claims unpatentable under any interpretation consistent with their plain and ordinary meaning in the context of the [’484 patent],” so we “need not expressly construe the claim terms.” Pet. 6–7.

Patent Owner argues to the contrary that we should construe the phrase “reconfigure the communication device” as “rearrange[] the communication device, such as the ports of an access point itself.” Prelim. Resp. 5–8. Patent Owner cites a statement in the specification of the ’484 patent that “[t]he reconfiguration typically includes reassigning the communication port from the restricted VLAN to the less-restricted VLAN.” *Id.* at 6–7 (quoting Ex. 1501, 3:20–25). Based on this statement, Patent Owner argues that “reconfigur[ing] the communication device” includes the type of change in connections between inlet and outlet ports of the access point depicted in Figures 3A and 3B of the ’484 patent. *Id.* at 7–8. Thus, Patent Owner concludes that the ordinary meaning of “an access control configured to reconfigure the communication device such that data sent from the access device is received by the less-restricted subset of the protected network” . . . is a network component that rearranges the communication device, such as the ports of an access point itself.” *Id.* at 8.

Based on the present record, we agree with Patent Owner that the recited “reconfigur[ing] the communication device” at least encompasses changing the association between the input port and output port of the access point. This is supported by the specification of the ’484 patent, which states: “Access Control 320 is configured to send commands to Switch Logic 317 in order to reconfigure members of Ports 305A-305G. This reconfiguration includes modifying the association of members of Ports 305A-305G with different members of VLANs 310A-310D.” Ex. 1501, 9:21–25; *see also id.* at 8:16–21 (similar disclosure with respect to “configuring and reconfiguring”).

Notwithstanding, based on the present record, we do not agree with Patent Owner that “reconfigur[ing] the communication device” is limited to changing the connection between the input port and the output port of the access point. Instead, the ’484 patent makes clear that reconfiguration is merely “typically,” not necessarily, of this type. Ex. 1501, 3:20–25. For this reason, we need not and do not adopt Patent Owner’s proposed construction at this juncture.

Based on the present record, we need not expressly construe any other claim terms.³ *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Asserted Obviousness over Krantz and Herrmann

Petitioner argues that claims 1–6, 11–13, 15–19, and 23–25 would have been obvious over the combination of Krantz and Herrmann. Pet. 65–79; Prelim. Reply 1–7. Patent Owner disagrees. Prelim. Resp. 27–43; Prelim. Sur-Reply 1–7. Based on the current record, we are persuaded that

³ If either party intends to further argue claim construction at trial, including the alleged plain and ordinary meaning of a particular term, they should do so in a clearly designated section of their briefing so as to expressly identify such arguments. *See, e.g.*, 37 C.F.R. § 42.104(b)(3) (content of petition); *see also* Patent Trial and Appeal Board Consolidated Trial Practice Guide, 84 Fed. Reg. 64,280, at 46, 48–45 (Nov. 2019) (available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>). Claim construction arguments should not be relegated to patentability arguments on the facts.

Petitioner has established a reasonable likelihood of prevailing on this asserted obviousness ground with respect to at least claim 1.

1. *Overview of Krantz*

Krantz is a U.S. patent application titled “Increasing the Level of Automation when Provisioning a Computer System to Access a Network.” Ex. 1505, code (54). Krantz “relates to configuring computer systems to appropriately communicate on a network, and more specifically, to automatically providing a computer system with appropriate information such that the computer system can be provisioned to communicate on a network.” *Id.* ¶ 2. Figure 2 of Krantz is reproduced below.

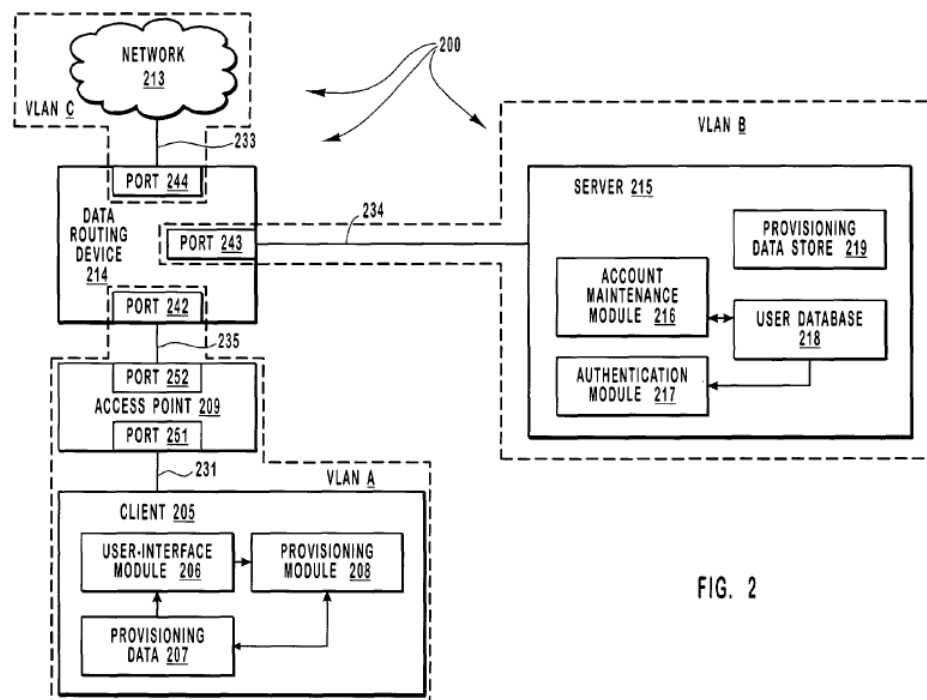


FIG. 2

Id. at Fig. 2. Figure 2 “illustrates an example of a network architecture that can facilitate increasing the level of automation when provisioning a client.” *Id.* ¶ 28. In Figure 2, “[d]ata can be transferred between access po[in]t 209 and client 205 through port 251. Likewise, data can be transferred between access point 209 and data routing device 214 through port 252.” *Id.* ¶ 63.

“Data routing device 214 can be configured to transfer both tagged data frames and untagged data frames between the VLANs depicted in FIG. 2.”

Id. ¶ 60.

2. *Overview of Herrmann*

Herrmann is a U.S. patent application titled “System and Methodology for Policy Enforcement.” Ex. 1506, code (54). Herrmann “relates generally to information processing and, more particularly, to systems and methods for policy enforcement on computer systems connected to one or more networks.” *Id.* ¶ 3. According to Herrmann, “if a client device connected to a network . . . is infected with a virus or worm, it may infect other machines on the same network,” making it important to “ensur[e] that devices connected to the network are running current anti-virus programs.” *Id.* ¶ 12. To do so, Herrmann teaches a system in which a client device attempts to access a network and information is collected “from the client device” so that the system can “determin[e] whether to authenticate the client device for access to the network based, at least in part, upon the collected information.” *Id.*, code (57).

3. *Prior-Art Status of Krantz and Herrmann*

Patent Owner argues that neither reference asserted by Petitioner qualifies as prior art to the ’484 patent “because the InfoExpress inventors conceived of the invention [of the ’484 patent] before the effective dates [of Krantz and Herrmann] and exercised reasonably continuous diligence in reducing the claimed inventions to practice.” Prelim. Resp. 30–43; *see* Prelim. Sur-Reply 1–7. Petitioner disagrees that the present record sufficiently shows that the inventors of the ’484 patent conceived of the invention before the effective date of Krantz or Herrmann and that the

inventors exercised reasonably continuous diligence in reducing that invention to practice. Prelim. Reply 1–7. In particular, Petitioner raises questions with respect to the independence of Patent Owner’s evidence from the inventor testimony that evidence is intended to corroborate, as well as with respect to whether the evidence offered by Patent Owner sufficiently shows conception, reduction to practice, and reasonably continuous diligence. *Id.*

We do not think the present record shows that Patent Owner has antedated both Krantz and Herrmann sufficiently to warrant denying institution of *inter partes* review on that basis. First, Patent Owner’s arguments rely on the testimony of inventor Stacey C. Lum, who has not yet been subject to cross-examination. Prelim. Resp. 32–43 (citing Ex. 2003). Second, Petitioner identifies several issues where further development of the record may be helpful. For example, Patent Owner’s asserted date of conception is associated with the date of an engineering specification included in the record as Exhibit 2011. *See* Prelim. Resp. 33 (citing Ex. 2003 ¶ 12; Ex. 2011; Ex. 2012). We agree with Petitioner (*see* Prelim. Reply 4–5) that it is unclear, based on the present record, whether Exhibit 2011 corroborates the testimony supporting Patent Owner’s conception date given that the present record does not establish the author of Exhibit 2011. *See* Ex. 2003 ¶ 22 (inventor Stacey C. Lum testifying only that “InfoExpress personnel drafted EX2011”). These and other issues relating to the prior-art status of Krantz and Herrmann are, in our view, best left for trial after full development of the record.

4. *Analysis of Claim 1*

- a) *Disputed Limitation: “Access Control Configured to Reconfigure the Communication Device Such That Data Sent*

from the Access Device is Received by the Less-Restricted Subset of the Protected Network Rather than Merely a Restricted Subset of the Protected Network”

Claim 1 recites “an access control configured to reconfigure the communication device such that data sent from the access device is received by the less-restricted subset of the protected network rather than merely a restricted subset of the protected network.” Ex. 1501, 16:11–15. Petitioner contends that Krantz teaches or suggests this limitation in three ways, each of which we address below. Pet. 41–55.

(1) Petitioner’s First Mapping

Petitioner argues first that the mere fact that data reaching port 251 of Krantz’s access point initially is directed to VLAN B and later is directed to VLAN C shows that port 251 is reconfigured to accomplish the change in destination. Pet. 42–46. On the present record, we disagree.

As discussed above, at this time, we do not determine the precise meaning of “reconfigur[ing] the communication device,” but we note that reconfiguring the communication device appears, on the present record, to require some change to the communication device itself, as opposed to merely change somewhere else within the system. In its first mapping, Petitioner does not identify a change to Krantz’s access point 209, which Petitioner identifies as the communication device. *Id.* In Krantz, data reaching access point 209 is ultimately directed to one of two destinations, but only after transiting port 252, logical communication link 235, port 242, and data routing device 214. Ex. 1505, Fig. 2. The mere fact that data is sent to one destination after previously having been sent to another does not demonstrate that there has been any change made to access point 209, rather than merely a change at one of the other stages along the way.

(2) Petitioner's Second Mapping

Petitioner next argues that Krantz's disclosure of the configuration of access point 209 "as a VLAN aware device [that] can insert Tag Headers into data frames received from client 205 . . . that are to be transferred to VLAN B and/or VLAN C" is a disclosure of reconfiguring the communication device. Pet. 46–50 (quoting Ex. 1505 ¶ 64). In particular, Petitioner argues that when Krantz's access point switches from inserting Tag Headers that enable access only to VLAN B to inserting Tag Headers that enable access to VLAN C, communication port 251 of access point 209 is reconfigured. *Id.* This is because, according to Petitioner, port 251 does the actual insertion of Tag Headers within access point 209. *Id.* at 47–48 (citing Ex. 1503 ¶¶ 124–125; Ex. 1505 ¶ 107).

Patent Owner argues that Krantz's insertion of Tag Headers into data from client 205 does not constitute reconfiguring access point 209 because it does not involve any change to access point 209. Prelim. Resp. 19–21.

On the present record, we find Petitioner's contentions regarding the "reconfigure the communication device" limitation sufficient for institution. Petitioner shows sufficiently, based on the present record, that Krantz teaches or suggests a change within the range of possible meanings of reconfiguration by shifting from inserting Tag Headers that enable access to VLAN B to inserting Tag Headers that enable access to VLAN C. Ex. 1505 ¶ 52. Further, Dr. Houh's testimony supports Petitioner's argument that the insertion of Tag Headers is accomplished by access point 209. Ex. 1503 ¶ 125 (citing Ex. 1505 ¶ 107). On the present record, this testimony appears not to be contradicted by other evidence.

Accordingly, on the present record, Petitioner has shown sufficiently that Krantz teaches or suggests the “reconfigure the communication device” limitation of claim 1.

(3) Petitioner’s Third Mapping

Finally, Petitioner argues that Krantz teaches or suggests the “reconfigure the communication device” limitation because it discloses “combin[ing] the functionality of the Data Routing Device and Access Point of Krantz in the same device.” Pet. 50–55. We need not reach this argument to determine whether to institute review, because, as discussed above, we determine that, based on Petitioner’s second mapping, Petitioner has shown sufficiently that Krantz teaches or suggests the “reconfigure the communication device” limitation of claim 1.

b) Disputed Limitation: “Policy Auditor Configured to Audit the Access Device Using the at Least One Security Policy”

Claim 1 recites “a policy auditor configured to audit the access device using the at least one security policy.” Ex. 1501, 16:6–7. For this limitation, Petitioner cites Herrmann’s teaching of requiring updated antivirus software by “using security rules and checking system data [‘audit data’] for connecting devices to ascertain compliance.” Pet. 65–67 (emphasis omitted) (citing Ex. 1506 ¶¶ 12, 68, 71). Petitioner also cites Krantz’s teaching of server 215 (i.e., the “gatekeeper”) authenticating a user when authentication module 217 favorably compares received credentials with entries in user database 218. *Id.* at 35 (citing Ex. 1505 ¶¶ 76). Petitioner contends it would have been obvious to apply Herrmann’s teachings on checking antivirus software status to the gatekeeper of Krantz. *Id.* at 66–67. In particular, Petitioner notes that “checking for antivirus software based on a security policy would merely be an additional item for server 215 (“gatekeeper”) and

its components (e.g., authentication module 217) to check in the authentication process already disclosed by Krantz” and that a person of ordinary skill in the art would have been “motivated to modify the system of Krantz to include the additional ‘*security policy*’ requiring a specific virus protection program (‘*including requirements that must be satisfied*’) because Krantz is specifically focused on network authentication and security.” *Id.*

Patent Owner disputes that the Krantz–Herrmann combination teaches the “audit[ing] the access device” limitation of claim 1. Prelim. Resp. 28–30. Patent Owner argues that “Krantz . . . is limited to authentication and includes nothing about device auditing” and that Petitioner “conflate[s] authentication and auditing.” *Id.* at 28–29. In contrast, Patent Owner argues that the ’484 patent “explains auditing relates to evaluating data about the device’s software and/or hardware that is necessary to comply with a security policy.” *Id.* at 23–24 (citing Ex. 1501, 11:45–47). Patent Owner also argues that auditing is different from authentication, which “merely confirms identity.” *Id.* at 24 (citing Ex. 1501, 1:31–37).

On the present record, we do not agree with Patent Owner’s argument. We are persuaded preliminarily that Krantz’s authentication module, as modified by Herrmann’s disclosures on checking for approved antivirus programs, teaches the “audit[ing] the access device” limitation. *See, e.g.*, Ex. 1503 ¶¶ 88–89; Ex. 1506 ¶¶ 12, 68, 71. Krantz’s authentication module also checks for credentials, which sufficiently teaches a requirement pertaining to “authentication.” *See, e.g.*, Ex. 1505 ¶¶ 13, 32, 72, 74, 76, 78, 91, 99. We also are persuaded preliminarily that it would have been obvious to apply Herrmann’s teachings on checking antivirus status to Krantz’s

server 215 (i.e., the “gatekeeper”), which determines whether to allow access to a network. *See, e.g.*, Ex. 1503 ¶ 90; Ex. 1505 ¶¶ 74, 76.

c) Rationale for Combining Krantz and Herrmann

Petitioner contends that “[i]t would have been obvious to include Herrmann’s techniques related to enforcing security policies (including checking for anti-virus protection at the client) and obtaining system data from an access device in the system of Krantz.” Pet. 13. Petitioner also contends that an ordinarily skilled artisan “would [have] recognize[d] that checking for anti-virus software as part of a security policy would merely be an additional item for server 215 to check in the process already disclosed by Krantz.” *Id.* at 13.

Petitioner proposes modifying Krantz’s authentication module, which checks user credentials against a database, so that it also would check for approved antivirus programs according to Herrmann’s teachings. Pet. 15. Petitioner contends that “[i]nformation regarding approved antivirus software and connected devices could be stored in the User Database or an additional Database could be added.” *Id.* (citing Ex. 1503 ¶ 54). Petitioner argues that an ordinarily skilled artisan “would have had a reasonable expectation of success in implementing these techniques into a combined Krantz/Herrmann system as doing so would involve minimal changes to the existing Krantz system.” *Id.* at 19 (citing Ex. 1503 ¶ 64).

Petitioner further contends that an ordinarily skilled artisan “would . . . have been motivated to apply Herrmann’s technique of checking connecting computer systems for antivirus software as it would not only provide added security but increase automation when connecting to a network.” *Id.* at 18–19 (citing Ex. 1506 ¶ 68). According to Petitioner,

“added security and increased automation” “are two stated goals of Krantz.” *Id.* (citing Ex. 1505 ¶¶ 14, 19). Therefore, Petitioner contends that an ordinarily skilled artisan “would have recognized that Herrmann’s disclosure of a policy server checking that a computer device complies with . . . an antivirus security policy, would be complimentary to the system of Krantz, which seeks an automated process for providing network security.” *Id.* at 19.

Patent Owner disputes that an ordinarily skilled artisan would have been motivated to combine Herrmann with Krantz. Prelim. Resp. 29–30. Patent Owner criticizes Petitioner’s assertion that Krantz’s focus on “authentication and security” would have provided motivation for the combination. *Id.* Patent Owner argues that Krantz “is limited to authentication and includes nothing about auditing.” *Id.* at 29 (citing Ex. 2001 ¶¶ 57–59). Given the alleged absence of any teaching on security policy compliance in Krantz, Patent Owner characterizes Petitioner’s stated rationale as being based on impermissible hindsight. *Id.* at 29–30 (citing *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1068 (Fed. Cir. 2018)).

Based on the present record, we find Petitioner’s rationale sufficient for institution. Petitioner points to Krantz’s alleged goals of security and automation. Pet. 19. Petitioner (*id.*) and Dr. Houh (Ex. 1503 ¶ 64) both cite paragraph 19 of Krantz, which states that “[i]f credentials do not authorize full access . . . the server can respond by sending a notification . . . includ[ing] conditions (e.g., signup, renewal etc.) a user must satisfy to become authorized for [] full access to resources.” Ex. 1505 ¶ 19. We are persuaded preliminarily that an ordinarily skilled artisan considering

Krantz's teachings of such conditions for full access would have had reason to apply Herrmann's technique for checking a client's antivirus security policy in the manner suggested by Petitioner. *See, e.g.*, Ex. 1503 ¶ 64; Ex. 1506 ¶ 68. Krantz's express teaching of conditions for a client to fully access a network (Ex. 1505 ¶ 19) also undermines Patent Owner's argument about impermissible hindsight and Patent Owner's suggestion that Krantz is limited to user authentication. Finally, we are persuaded that Petitioner has shown sufficiently, for purposes of instituting review, that an ordinarily skilled artisan would have expected success in making the combination because it would only require software modifications to Krantz's system. *See, e.g.*, Ex. 1503 ¶ 64.

d) Undisputed Limitations of Claim 1

Claim 1 also recites

1. A network gatekeeper comprising:

at least one security policy including requirements that must be satisfied before an access device is granted access to a less-restricted subset of a protected network;

. . . , in response to a request to access the less-restricted subset of the protected network, the request being sent from the access device to the gatekeeper via a communication device; and

. . . , if the audit results in a determination that the access device meets the requirements of the at least one security policy, the restricted subset of the protected network including the gatekeeper.

Ex. 1501, 16:2–19. Petitioner argues that these limitations would have been obvious over the combination of Krantz and Herrmann. *See* Pet. 19–31, 55–56, 65–67.

After reviewing Petitioner's arguments and information regarding the limitations identified immediately above, including the Houh Declaration, which are not addressed by Patent Owner at this stage (*see* Prelim. Resp.; Prelim. Sur-Reply), we are persuaded that Petitioner sufficiently demonstrates, for purposes of this Decision, that the preamble of claim 1 and the undisputed limitations would have been obvious to a person having ordinary skill in the art in light of the combination of Krantz and Herrmann.

e) Conclusion Regarding Claim 1

Based on the current record, we determine that there is a reasonable likelihood that Petitioner will prevail in demonstrating that claim 1 is unpatentable as obvious in view of Krantz and Herrmann. Accordingly, we institute *inter partes* review with respect to all grounds asserted in the Petition.

5. Claims 2–6, 11–13, 15–19, and 23–25

Because Petitioner demonstrates a reasonable likelihood of success in proving that at least one claim of the '484 patent is unpatentable, we institute on all grounds and all claims raised in the Petition. *See* 37 C.F.R. § 42.108(a). Therefore, at this stage of the proceeding, it is not necessary for us to provide an assessment of every challenge raised by Petitioner, especially, as in this case, when Patent Owner does not separately argue those claims. Those challenges, in our view, are best left for trial after full development of the record.

E. Asserted Obviousness over Krantz

Petitioner argues that claims 1–5, 11, 12, 16–19, and 23–25 would have been obvious over Krantz. Pet. 19–65; Prelim. Reply 1–7. Patent Owner disagrees. Prelim. Resp. 16–27, 30–43; Prelim. Sur-Reply 1–7.

Because Petitioner meets the threshold for institution by demonstrating a reasonable likelihood that at least claim 1 is unpatentable as having been obvious over the combination of Krantz and Herrmann, we need not decide whether Petitioner's other challenge demonstrates the same. That challenge, in our view, is best left for trial after full development of the record.

III. PARALLEL PETITIONS

As noted above, Petitioner challenges the '484 patent both in this proceeding and in IPR2024-00679. Petitioner argues that we should institute review in both proceedings because "the analysis of all 33 challenged claims . . . of the 484 Patent could not reasonably fit within the word limit for a single petition." Paper 4, 2. Petitioner notes further that "addressing different sets of *independent* claims in each petition was most efficient given the differences between independent claim 1 (Petition 1 - IPR2024-00675) and independent claims 28, 41, 56, and 57 (Petition 2 - IPR2024-00679)." *Id.* Patent Owner does not argue that we should deny institution either in this proceeding or in IPR2024-00679 due to Petitioner's having filed parallel petitions challenging the '484 patent. Prelim. Resp. 1–44. Given Patent Owner's acquiescence and Petitioner's arguments, we do not exercise our discretion to deny institution due to the parallel petitions.

IV. CONCLUSION

For the reasons set forth above, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing with respect to at least one challenged claim of the '484 patent, and we institute *inter partes* review on all challenged claims and on all grounds presented.

Our factual findings, conclusions of law, and determinations at this stage of the proceeding are preliminary, and based on the evidentiary record developed thus far. This is not a final decision as to the patentability of claims for which *inter partes* review is instituted. Our final decision will be based on the record as fully developed during trial.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1–6, 11–13, 15–19, and 23–25 of the '484 patent on the grounds asserted in the Petition; and

FURTHER ORDERED that, 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, which shall commence on the entry date of this decision.

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Patent 7,523,484 B2

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