

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TREND MICRO INC.,
Petitioner,

v.

CUPP COMPUTING AS,
Patent Owner.

IPR2021-01236
Patent 10,951,632 B2

Before THOMAS L. GIANNETTI, GARTH D. BAER, and
SHARON FENICK, *Administrative Patent Judges*.

GIANNETTI, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

Trend Micro Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1, 9, 16, and 24 (the “challenged claims”) of U.S. Patent No. 10,951,632 B2 (Ex. 1001, the “’632 patent”). Paper 1 (“Pet.”). CUPP Computing AS (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”).

The Board has authority to determine whether to institute an *inter partes* review. See 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Under 35 U.S.C. § 314(a), we may not authorize an *inter partes* review unless the information in the petition and the preliminary response “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.”

For the reasons stated below, we determine that Petitioner has established a reasonable likelihood that it would prevail with respect to at least one challenged claim. We therefore institute *inter partes* review as to all of the challenged claims of the ’632 patent and all of the asserted grounds of unpatentability stated in the Petition.

B. Related Proceedings:

The parties identify the following district court proceeding concerning the ’632 patent: *CUPP Cybersecurity LLC v. Trend Micro, Inc., et al.*, No. 3:20-cv-03206 (N.D. Tex.). Pet. 1–2; Paper 7.

A related patent, U.S. Patent No. 9,843,595 (the “’595 patent”),¹ was before the Board in IPR2019-00765 (the “’765 IPR”). A Final Written Decision in the ’765 IPR, finding all challenged claims of the ’595 patent unpatentable, was entered on August 25, 2020. Ex. 1003.

In addition, Petitioner has filed a second petition challenging the same claims of the ’632 patent as this Petition. PGR2021-00100, Paper 1. Petitioner has also filed two additional petitions challenging the same claims of the ’632 patent as these petitions, plus two additional claims. IPR2021-01237, PGR2021-00101. These petition will be further discussed *infra*.

C. Real Party-in-Interest

The Petition identifies Trend Micro as the real party-in-interest. Pet. 1. Patent Owner in its Preliminary Response does not comment on or contest this identification. Patent Owner identifies CUPP Computing AS the real party-in-interest. Paper 7, 1.

D. The ’632 Patent

The ’632 patent describes a system and method for providing data and device security between external and host devices. Ex. 1001, 1:30–33. According to the patent, mobile devices are more vulnerable to attacks by malicious code when traveling outside an enterprise network. *Id.* at 1:61–65. The patent thus describes “a small piece of hardware [a ‘mobile security system’] that connects to a mobile device and filters out attacks and malicious code.” *Id.* at 5:45–47. The patent explains that “[u]sing the mobile security system, a mobile device can be protected by greater security

¹ The ’632 patent is a continuation (through a chain of continuations) of the ’595 patent (Ex. 1004), and shares a common specification with the ’595 patent.

and possibly by the same level of security offered by its associated corporation/enterprise.” *Id.* at 5:49–52.

This system is illustrated in Figure 3 of the ’632 patent, which follows:

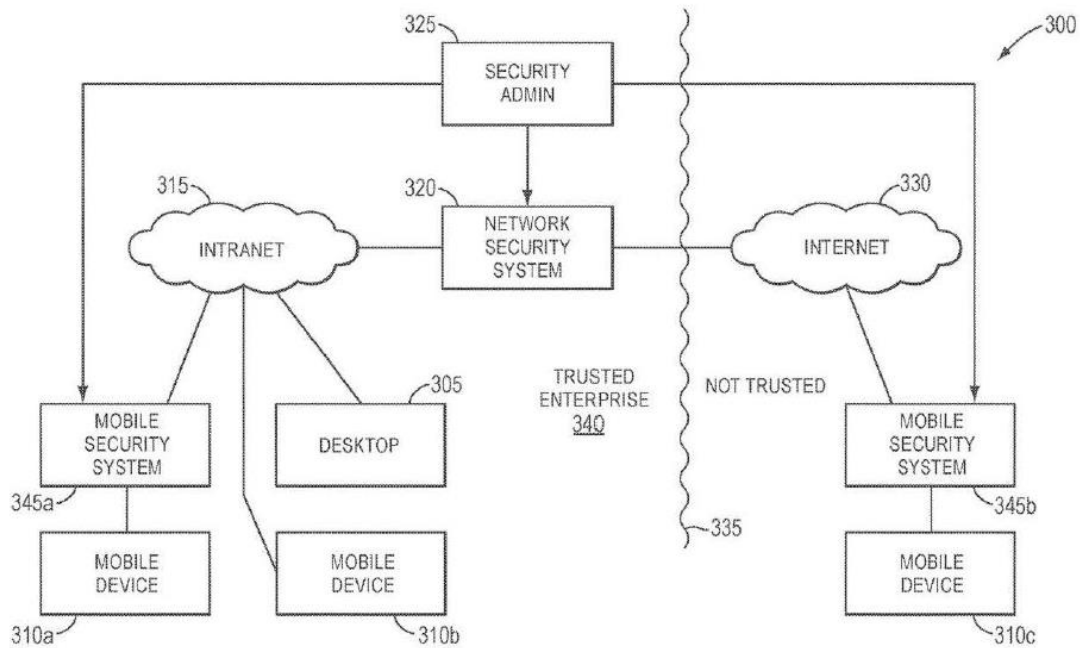


FIG. 3

Figure 3 of the ’632 patent is a block diagram of a network system. Ex. 1001, 5:53–54. Network system 300 includes desktop 305, first mobile device 310a, and second mobile device 310b. *Id.* at 5:54–56. First mobile device 310a is within trusted enterprise network 340 and is coupled to the enterprise’s intranet 315 via mobile security system 345a. *Id.* at 5:56–59. Figure 3 further shows mobile device 310c that has travelled outside trusted enterprise network 340 and is coupled to untrusted internet 330 via mobile security system 345b. *Id.* at 6:3–5. This mobile device may be in use by an employee of trusted enterprise network 340 who is currently on travel. *Id.* at

6:6–7. Security administrator 325 manages mobile security systems 345a and 345b and network security system 320 to assure that they include the most current security protection. *Id.* at 6:7–11.

The '632 patent also describes a wake module configured to wake a mobile device from a power management mode. *Id.* at Fig. 18, 21:63–64. According to the patent, a power management mode “is a mode wherein the mobile device conserves power, usually after a predetermined period of inactivity (e.g., no input from a mouse and keyboard).” *Id.* at 21:64–67. During power management mode, the mobile device may reduce or eliminate power to one or more mobile device components such as a display and/or hard drive. *Id.* at 21:67–22:3.

E. Illustrative Claims

Claims 1 and 16 are independent. Claims 1 is representative of the challenged claims. Claim 1 recites²:

[1.0] A security system, comprising:

[1.1] security system memory;

[1.2.a] a communication interface configured to communicate with a mobile device and configured to communicate over a network with a security administrator device,

[1.2.b] the mobile device including a mobile device processor and including a security agent configured to cooperate with the security system,

[1.2.c] the security administrator device having a security administrator processor different than the mobile device processor, the mobile device being remote from the security administrator device,

[1.2.d] the mobile device being a first computer system, the security system being a second computer system, the security

² Paragraph numbering provided by Petitioner has been added.

administrator device being a third computer system, the first computer system, the second computer system and the third computer system being separate computer systems; and

[1.3] a security system processor being different than the mobile device processor and different than the security administrator processor, the security system processor being configured to:

[1.4.a] store in the security system memory at least a portion of wake code, the wake code being configured to detect a wake event and to send a wake signal to the mobile device in response to detecting the wake event,

[1.4.b] the security agent of the mobile device being configured to receive the wake signal, the security agent of the mobile device being configured to wake at least a portion of the mobile device from a power management mode in response to receiving the wake signal, the security agent of the mobile device being configured to perform security services after the at least a portion of the mobile device has been woken;

[1.5] detect a particular wake event;

[1.6] prepare a particular wake signal in response to detecting the particular wake event; and

[1.7.a] send the particular wake signal to the mobile device in response to detecting the particular wake event,

[1.7.b] the security agent of the mobile device being configured to wake the at least a portion of the mobile device in response to receiving the particular wake signal and being configured to perform particular security services after the at least a portion of the mobile device has been woken.

Ex. 1001, 31:15–58.

F. References and Other Evidence

The Petition relies on the following references:

U.S. Patent App. Pub. No. 2008/0120423 (Ex. 1007, “Hall”).

U.S. Patent App. Pub. No. 2006/0101277 (Ex. 1008, “Meenan”).

U.S. Patent App. Pub. No. 2010/0218012 (Ex. 1009, “Joseph”).

In addition, Petitioner submits the Declaration of Dr. Markus Jakobsson (Ex. 1020, “Jakobsson Decl.”). At this stage, Patent Owner has not submitted an expert declaration.

G. Asserted Grounds of Unpatentability

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

Claims Challenged	Basis (35 U.S.C.)³	Reference
1, 9, 16, 24	§ 103(a)	Hall
9, 24	§ 103(a)	Hall, Meenan
1, 16	§ 103(a)	Joseph
9, 24	§ 103(a)	Joseph, Meenan

Pet. 4.

II. PRELIMINARY MATTERS

A. Level of Ordinary Skill

Petitioner contends “[a] person of ordinary skill in the art at the time of the alleged invention of the ’632 patent (*i.e.*, August 4, 2008) . . . would

³ Because the earliest application from which the ’632 patent issued was filed before March 16, 2013, the pre-AIA (“America Invents Act”) version of §103 applies. Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011).

have had a bachelor's degree in computer science, electrical engineering, or a comparable field of study, plus at least two years of professional experience with computer security systems, or the equivalent.” Pet. 12 (citing Jakobsson Decl. ¶ 60).

At this stage, Patent Owner does not provide a description of the person of ordinary skill.

Petitioner's description is consistent with the prior art and patent specification before us and is supported by credible expert testimony. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (prior art itself may reflect an appropriate level of skill). For the purpose of our decision, we adopt Petitioner's description.

B. Claim Construction

In an *inter partes* review, the claims of a patent shall be construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b), including construing the claims in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005). Under that standard, and absent any special definitions, we give claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms must be set forth with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We construe claim terms only as relevant to the parties' contentions and only to the extent necessary to resolve the issues in dispute. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999); *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

1. power management mode (all challenged claims)

This term has been construed in the '765 IPR and in district court litigation involving the '595 patent as "a mode where the mobile device conserves power." Pet. 12; Prelim. Resp. 26. There is no dispute over this construction. *See* Ex. 1006, 2. The construction is supported by the '632 patent specification. *See* Ex. 1001, 21:62–64 ("A power management mode is a mode wherein the mobile device conserves power."). We agree with this construction and we adopt it for this decision. *See* Ex. 1003, 8.

2. security administrator device (all challenged claims)

Petitioner contends "the plain and ordinary meaning of this term includes a device that performs security administration." Pet. 13 (citing Jakobsson Decl. ¶ 65). Petitioner asserts that "[t]his is consistent with the '632 patent's disclosure that the security administrator device 325 may perform various security administration tasks." *Id.*

Patent Owner responds that "[t]he plain and ordinary meaning of the term in light of the '632 Patent Specification is a device that manages security of a security system." Prelim. Resp. 27. Patent Owner continues, "the specification describes that the security administration device 'manages the mobile security system 345(a), the mobile security system 345(b), and the network security system 320.'" *Id.* (citing Ex. 1001, 6:8–10).

At this stage we are more persuaded by Petitioner's construction. Petitioner's construction is consistent with the term's plain language as well as the specification and is supported by expert testimony. *See* Jakobsson Decl. ¶ 65 ("The plain and ordinary meaning of this term includes a device that performs security administration. This is consistent with the '632 patent's disclosure that the security administrator device 325 may perform various security administration tasks.") *See, e.g.,* Ex. 1001, 24:55–57 (describing security administrator 325 as an "administrator device").

C. Description of the Principal Prior Art References

1. Joseph

Joseph is a published patent application titled "Methods and Systems for Providing a Wireless Security Service and/or a Wireless Technical Support Service for Personal Computers." Ex. 1009, (54). Petitioner contends that Joseph's effective date as prior art is at least as early as May 26, 2008. Pet. 45. Petitioner contends that this date is before the earliest possible effective filing date for the '632 patent, thus qualifying Joseph as prior art under pre-AIA 35 U.S.C. § 102(e). *Id.* At this stage, Patent Owner does not challenge Joseph's availability as prior art.

Joseph is directed to "enhancing security of personal computers and facilitating recovery of stolen, lost or otherwise missing personal computers." *Id.* ¶ 7. Joseph discloses providing the laptop computer with an "integrated" security diagnostics unit ("SDU"). *Id.* ¶ 60.

The SDU provides wireless security service or wireless technical support services to the laptop computer. *Id.* The SDU communicates with a network entity referred to as a "security/technical support entity" at a remote location by sending and receiving messages via a wireless network. *Id.* ¶ 61.

The SDU is shown as element 14 in Figure 3 of Joseph, reproduced here:

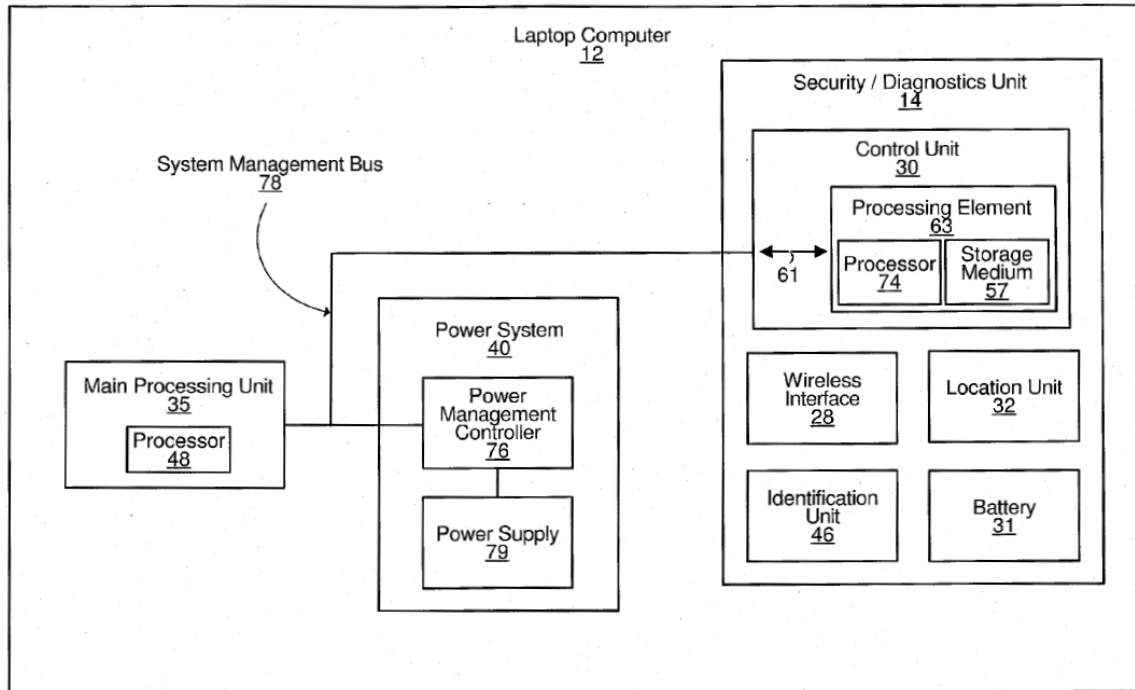


FIG. 3

Figure 3 of Joseph is a block diagram showing personal computer 12 including SDU 14. *Id.* ¶¶ 39, 79. SDU 14 is connected to power management system 40 of the personal computer through system management bus 78. *Id.* SDU 14 includes control unit 30, which contains hardware and software for implementing interface 61 and processing element 63. *Id.* ¶ 73. The processing element comprises one or more processors 74 for performing processing operations to implement the functionality of the control unit. *Id.* ¶ 74. These processors may be general purpose computers that execute code to implement the functionality of control unit 30. *Id.* As shown in Figure 3, these processors are different

from processor 48 that is part of main processing unit 35 of the laptop computer. *Id.* ¶ 54.

Figure 14 of Joseph is reproduced here:

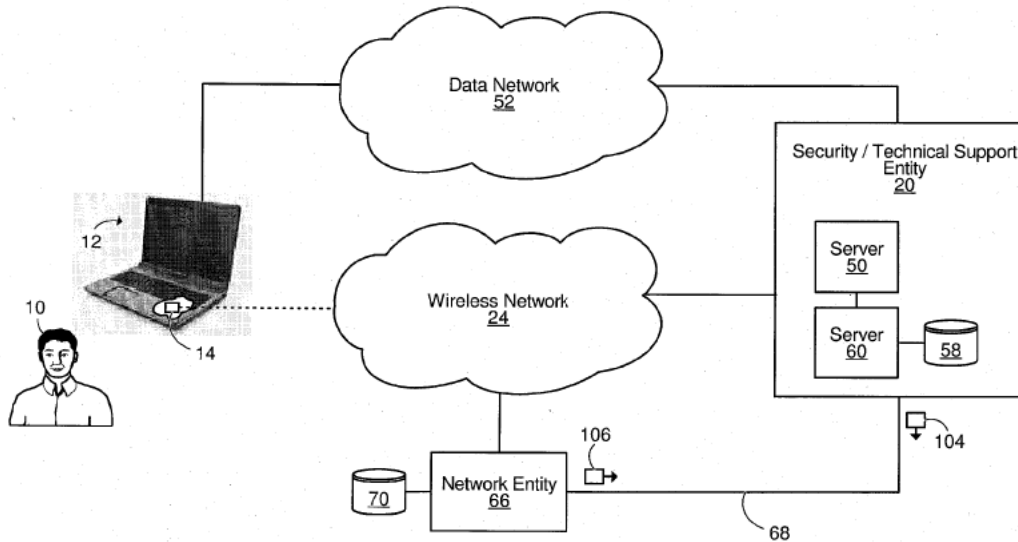


FIG. 14

Figure 14 shows a process by which a user may register for and activate the wireless security service or the wireless technical support service. Ex. 1009, ¶ 200. Security/technical support entity 20 includes server 50 connected to data network 52 (e.g., the Internet). *Id.* ¶ 201. User 10 uses laptop computer 12 to interact with the network site implemented by server 50 to register for the wireless security service and the wireless technical support service. *Id.* ¶ 202.

The network site implemented by server 50 prompts user 10 to enter registration information. *Id.* ¶ 205. Server 60 causes transmission of message 104 to network entity 66 operated by the wireless network provider. *Id.* ¶ 207. Message 104 is a request to obtain from the wireless network provider “activation information,” to be subsequently transmitted to SDU 14

via wireless network 24 in order to activate the SDU on the personal computer. *Id.* ¶ 208.

Having obtained the activation information, network entity 66 sends message 106 conveying the activation information to server 60 via communication link 68. *Id.* ¶ 212. Server 60 passes this information to server 50. *Id.* ¶ 213. Upon completion of the registration phase, the network site implemented by the server 50 informs the user that registration is completed and instructs the user to proceed to the activation phase. *Id.* ¶ 215.

An objective of the activation phase is to activate SDU 14, i.e., to cause the SDU to be granted access to wireless network 24 by the wireless network provider such that the SDU can communicate with security/technical support entity 20 via wireless network 24. *Id.* ¶ 217. During the activation process, server 60 transmits a message to SDU 14 via wireless network 24. *Id.* ¶ 229. Prior to transmission of this message, the SDU is in sleep mode. *Id.* This message conveys a command to put the sleeping SDU in wake mode. *Id.*

In response to receiving this message, SDU 14 puts itself in wake mode. *Id.* ¶ 230. SDU 14 also sends a message to server 60 via wireless network 24 to acknowledge receipt of the “wake up” message and confirm that it is in wake mode. *Id.* Upon receiving this message, the server 60 determines that the SDU has received the message 148 and placed itself in wake mode. *Id.* ¶ 231. The server proceeds to transmit a message to the

SDU via the wireless network 24 that conveys a command to put the SDU in sleep mode. *Id.*

In response to receiving this message, the SDU puts itself back in sleep mode. *Id.* ¶ 232. SDU also sends a message to server 60 via the wireless network 24 to acknowledge receipt of the message and confirm that it is in sleep mode. *Id.*

Upon receiving this message, the server determines that the SDU has received the message and placed itself in sleep mode. *Id.* ¶ 233. The server concludes that the SDU is operating correctly and that the wireless security service and the wireless technical support service have been activated. *Id.*

2. *Hall*

Hall is a published patent application titled “System and Method of Actively Establishing and Maintaining Network Communications for One or More Applications.” Ex. 1007, (54). Petitioner contends that Hall’s effective date as prior art is at least as early as May 22, 2008. Pet. 14. Petitioner contends that this date is before the earliest possible effective filing date for the ’632 patent, thus qualifying Hall as prior art under pre-AIA 35 U.S.C. §§ 102(a) and (e). *Id.* At this stage, Patent Owner does not challenge Hall’s availability as prior art.

Figure 1 of Hall follows:

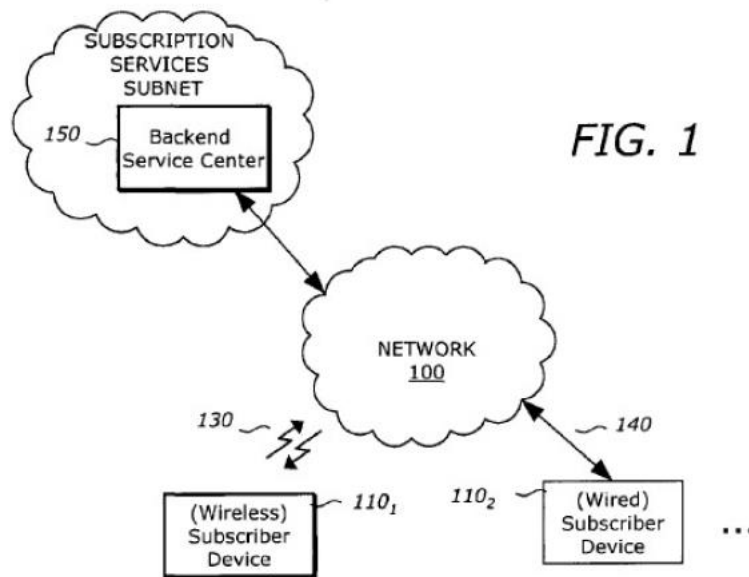


Figure 1 illustrates a network with subscribers 110₁ and 110₂ implemented with backend service center 150. Ex. 1007 ¶ 7. As shown in Figure 1, subscriber device 110₁ is in communication with backend service center 150, which includes a collection of one or more databases and/or network servers. *Id.* ¶ 33.

Each subscriber device is provided with a communication module (referred to as “MySync module”), which is a series of instructions that run as a Windows Service. *Id.* ¶ 37. The MySync module communicates with the backend service center and performs various services on the laptop, including security services. *Id.* ¶¶ 42–45. For example, the backend service center may send a wake up signal to the laptop and instruct the laptop to perform security services if the laptop has been reported stolen. *Id.*, Fig. 12, ¶¶ 100–104.

III. PATENT OWNER’S REQUEST FOR DENIAL UNDER 35 U.S.C. § 325(d)

Patent Owner argues that institution should be denied under 35 U.S.C. § 325(d) “because the Petition relies on the same art or substantially similar art that was previously presented to the Patent Office.” Prelim. Resp. 20.

In evaluating arguments under § 325(d), we use a two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of the first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). We must also consider the non-exclusive factors set forth in *Becton, Dickinson and Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential in relevant part), which “provide useful insight into how to apply the framework” under § 325(d). *Advanced Bionics*, Paper 6 at 9. Those non-exclusive factors include:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;

- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson, Paper 8 at 17–18. “If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office.”

Advanced Bionics, Paper 6 at 10.

For the reasons given below, we are not persuaded to exercise our discretion to deny the Petition based on § 325(d).

A. § 325(d) Analysis

Patent Owner contends “[t]he first prong of *Advanced Bionics* is satisfied here” because “[t]he Patent Office considered *Joseph* as well as the ’595 [patent] FWD.” Prelim. Resp. 21 (citing Ex. 1002, 39, 49, 191, 262).⁴ Patent Owner points to an information disclosure statement (IDS) citing *Joseph*, bearing the Examiner’s initials. *Id.* at 21–22. Further, Patent Owner points to a later IDS, submitted three months after being notified of allowance of the claims by the Examiner, citing the ’765 IPR Final Written Decision and bearing the Examiner’s initials. *Id.* Patent Owner contends that these demonstrate that “*Joseph*, and arguments from the related IPR proceeding concerning *Joseph*, were previously considered by the Office, the first prong of *Advanced Bionics* is satisfied.” *Id.* at 22.

⁴ Unless otherwise stated, citations to exhibits use the page numbers assigned by the parties, and not the original page numbers.

Anticipating Patent Owner’s argument, Petitioner asserts that “[a]lthough Patent Owner cited the Joseph reference in an IDS (buried among over 220 other references) in the ’632 patent file history, the examiner made no rejection based on Joseph.” Pet. 70 (citation omitted). Petitioner continues, “[i]n fact, the examiner made no substantive claim rejection whatsoever, even after being provided with the Board’s Institution Decision and Final Written Decision from IPR2019-00765 (regarding the ’595 patent).” *Id.* Petitioner further asserts that “although Patent Owner provided the ’632 patent examiner with the Final Written Decision from the ’595 patent IPR, Patent Owner did so only after the examiner had issued four different notices of allowance for the ’632 patent claims.” *Id.* (citing Ex. 1002, 149–151, 121–122, 88–89, 76–77, 48–49). Petitioner remarks that in response to this citation, “the examiner merely cited his comments from the first notice of allowance.” *Id.* (citing Ex. 1002, 13–18). Finally, Petitioner argues that “[r]egardless of what Patent Owner disclosed to the examiner, the examiner clearly erred in issuing the ’632 patent claims over Joseph.” *Id.*

We agree with Patent Owner (and Petitioner does not dispute) that Joseph was cited to the examiner of the ’632 patent in an IDS. Pet. 70; Prelim. Resp. 21. Because Joseph was cited to the examiner, and in view of Patent Owner’s argument that it was “considered,” we now turn to the second part of the *Advanced Bionics* framework and evaluate *Becton*, *Dickinson* factors (c), (e), and (f), to determine whether the Petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Advanced Bionics*, Paper 6 at 7–11.

As stated above, under factor (c) we consider “the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection.” We agree with Petitioner that this factor favors not exercising our discretion to deny the Petition. Pet. 70. There is no dispute that the examiner did not apply Joseph in rejecting any claims of the ’632 patent or discuss Joseph in the examiner’s comments or reasons for allowance. Under factor (c), this strongly favors not exercising our discretion to deny the Petition.

Nor are we persuaded to deny institution because our Final Written Decision in the ’765 IPR, involving the ’595 patent and citing Joseph, was cited to the Examiner in an IDS. The IDS citing the Final Written Decision for the ’765 IPR was submitted by the applicant (without any discussion or explanation) *after* the examiner had allowed the application for the ’632 patent, and was neither discussed nor cited by the examiner in the subsequent reasons for allowance. There is nothing in the prosecution history to suggest that the Board’s reasoning was ever applied by the examiner, and the record is silent on the extent to which the ’765 IPR Final Written Decision was evaluated by the examiner.

Factor (e) asks “whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art.” Petitioner’s argument is that “the examiner clearly erred in issuing the ’632 patent claims over Joseph.” Pet. 70. We agree. Our own analysis of the challenged claims of the ’632 patent in light of Joseph persuades us that the examiner erred in not appreciating the significance of that reference. Specifically, despite the citations of Joseph and the ’765 Final Written Decision, the

examiner's reasons for allowance⁵ adopts the reasoning of the examiner of the '595 patent, recites several claim elements, and concludes that "[t]he closest prior art still fails to teach" those elements. Ex. 1002, 154–155 (quoting claim elements 1.4a, 1.4.b, 1.5, 1.6, 1.7.a, and 1.7.b, *supra*). This conclusion by the examiner is erroneous, as is demonstrated by our findings to the contrary in the '765 IPR based on Joseph, and our analysis of Joseph *infra*.

Becton, Dickinson factor (f) considers "the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments." Patent Owner emphasizes that Petitioner's positions in this case concerning Joseph are "inconsistent" with the positions Petitioner took in earlier '765 IPR in which it relied on Joseph to challenge the '595 patent. See Prelim. Resp. 40–43. We see no reason, however, to fault Petitioner for reading two different sets of claims differently on the same prior art reference, as long as the language of those claims and the disclosure of the reference support those readings. For the reasons identified in the '765 IPR and as explained below, that is the case here. Thus, we conclude that *Becton, Dickinson* factor (f) does not favor exercising our discretion to deny the Petition.

In sum, we are persuaded of material error by the examiner in overlooking the significance of Joseph. Based on our consideration of the

⁵ The examiner's final notice of allowance refers back to the prior notice of allowability dated December 27, 2019, for "full" reasons of allowance. Ex. 1002, 17.

record in light of the *Becton, Dickinson* factors, we decline to exercise our discretion to deny institution under section 325(d).⁶

IV. PATENT OWNER’S REQUEST FOR DENIAL UNDER
35 U.S.C. § 314(a)

A. *Denial Based on Multiple Petitions*

Petitioner filed two IPRs and two PGRs challenging the ’632 patent. In this case and in PGR2021-00100, Petitioner challenges claims 1, 9, 16, and 24. In IPR2021-01237 and PGR2021-00101, Petitioner challenges claims 1, 7, 9, 16, 22, and 24. Patent Owner contends that the Board should exercise its discretion under 35 U.S.C. § 314(a) to deny the Petition “because two PGR and two IPR petitions are not necessary nor proper.” Prelim. Resp. 10.

For its part, Petitioner maintains that there are “material differences” between the two IPR petitions that warrant granting both. Paper 13, 1–4. For example, Petitioner points out that the two IPR petitions “use different prior art references . . . that present different material issues.” *Id.* at 2. Also, “the various prior art references disclose certain claim limitations in materially different ways.” *Id.* Petitioner asserts also that it could not have adequately addressed the principal references (Joseph, Hall, and Gordon⁷) in one petition. *Id.* at 5. As to the two PGRs, which Petitioner admits are “substantively duplicative of the IPR petitions” (Paper 13, 2), the Petition explains that they were filed “out of an abundance of caution,” in case the Board were to decide that the ’632 patent is an “AIA patent.” *Id.* at 1–2.

⁶ Because of our conclusion regarding Joseph, we determine that § 325(d) is not sufficiently applicable, and we, therefore, do not address Patent Owner’s argument that Hall is “substantially the same art.” Prelim. Resp. 22.

⁷ U.S. Patent No. 7,818,803 B2.

Concurrently with this Decision, the Board is issuing decisions in PGR2021-00100 and PRG2021-00101, denying the petitions in those cases because the '632 patent is a pre-AIA patent and thus not eligible for post-grant review. As to the two remaining IPRs, we find Petitioner's approach—using two different petitions to present substantively distinct challenges—is not unreasonable. In particular, in this case two petitions are enough for Petitioner to clearly lay out three substantively distinct challenges based on three different primary prior-art references, while not overly burdening the Board. We therefore decline to exercise our discretion to deny institution.

B. Denial Based on Fintiv

In addition to its argument for discretionary denial based on multiple petitions, Patent Owner contends the Board should deny the Petition under § 314(a) “given the advanced state of the parallel district court litigation,” referring to the parallel district court action in the Northern District of Texas. Prelim. Resp. 13. For the reasons that follow, we decline to exercise our discretion to deny the Petition on that basis.

The Board's precedential decision in *Apple Inc. v. Fintiv Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), identifies a non-exclusive list of factors parties may consider addressing where there is a related, parallel district court action to determine whether such action provides any basis for discretionary denial. *Fintiv*, Paper 11 at 5–16. Those factors include:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;

3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Id. at 5–6.

In evaluating the factors, we take a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.

Id. at 6.

1. Factors 1 and 2

As Patent Owner acknowledges, the projected trial date of November 7, 2022, in the Northern District of Texas litigation involving the '632 patent is approximately two months before the statutory deadline for the final written decision. Prelim. Resp. 15. A stay of the Texas litigation not been requested by either party. However, Petitioner asserts that after institution the district court “likely will enter a stay.” Pet. 71 (citing Ex. 1011). We do not speculate about the likelihood of a stay, but we find that given the close proximity of the projected trial date to the final written decision due date, and the uncertainties of projected trial dates in general, on balance these factors at most weigh only slightly in favor of exercising our discretion to deny the Petition.

2. Factors 3 and 4

Patent Owner argues that “[t]he parallel litigation proceeding is already at an advanced state and has seen significant investment by the parties and the court.” Prelim. Resp. 16. Patent Owner advises us that the

Northern District of Texas case involving the '632 patent has been consolidated with an earlier-filed case. *Id.* at 17. In that earlier case there have been “numerous” discovery requests and responses and invalidity and infringement contentions have been served. *Id.* Finally, Patent Owner advises us that the district court has issued claim construction orders. Paper 15, 1.

Other than citing the claim construction orders by the district court and service of preliminary discovery requests and responses, Patent Owner does not support its contention that “the parallel litigation proceeding is already at an advanced state.” Prelim. Resp. 16. Moreover, Petitioner has been reasonably diligent, filing the Petition “less than three months after Patent Owner filed the amended complaint asserting the '632 patent.” Pet. 71. We conclude that this factor does not favor exercising our discretion to deny institution

Furthermore, citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18-19 (PTAB Dec. 1, 2020) (precedential in relevant part), Petitioner stipulates that “if the Board institutes IPR, Petitioner will not pursue in the district court litigation any ground of invalidity of the '632 patent that was raised or that could have been reasonably raised in an IPR.” Pet. 73–74. Patent Owner criticizes this as stipulation as “not sufficient when weighed against the other factors.” Prelim. Resp. 19. Patent Owner tries to distinguish *Sotera* on the basis that in *Sotera*, there was “a relatively little investment in the parallel proceeding and the district court trial was scheduled to begin around the time of the projected final written decision.” *Id.*

We do not agree with Patent Owner’s argument regarding these facts supposedly distinguishing *Sotera*. In *Sotera*, as here, “much other work remain[ed] in the parallel proceeding as it relates to invalidity.” *Sotera*, Paper 12 at 16. Specifically, here, as in *Sotera*, “fact discovery is ongoing, expert reports are not yet due, and substantive motion practice is yet to come.” *Id.* Thus, we conclude, as did the Board in *Sotera*, that “although the parties and the District Court have invested some effort in the parallel proceeding to date, further effort remains to be expended in this case before trial.” *Id.*

We are persuaded that the *Sotera* stipulation here is sufficient to mitigate any overlap in the proceedings and weighs strongly against the exercise of discretion. Overall, we conclude that these factors weigh in favor of not exercising our discretion to deny institution.

3. *Factor 5*

Neither party disputes that Petitioner and Patent Owner are parties to the district court proceeding. To the extent that the district court trial proceeds as scheduled, this factor favors exercising our discretion to deny institution

4. *Factor 6*

Patent Owner contends “Petitioner’s case lacks merit.” Prelim Resp. 20. We disagree. We have considered the merits of the Petition and determined that they more than meet the standards for institution of *inter partes* review. We have previously decided, in the ’765 IPR, that similar claims are unpatentable in light of Joseph. At this stage, we regard the changes Patent Owner has made in the claims we previously reviewed to be insufficient to avoid obviousness over Joseph. Thus, the merits of this case

appear to be strong and therefore in our analysis of *Fintiv* factors, we find that this factor weighs against exercising discretion to deny institution.

In addition, we note that we have instituted *inter partes* review in related case IPR2021-00813. We find this weighs against exercising our discretion to deny institution. *See Apple Inc. v. Seven Networks, LLC*, IPR2020-00235, Paper 10 at 17 (PTAB July 28, 2020).

5. *Summary and Conclusion*

We have considered the circumstances and facts before us in view of the *Fintiv* factors. For the reasons given, we are not persuaded to exercise our discretion to deny institution.

V. ANALYSIS OF THE CHALLENGED CLAIMS

The Petition challenges claims 1, 9, 16, and 24 of the '632 patent. Petitioner asserts unpatentability of the claims based on obviousness. Pet. 3–4.

A. *Obviousness*

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *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 skill in the art; and (4) so-called “secondary considerations,” including commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *Graham v. John Deere Co.*, 383 U.S. 1, 17–

18 (1966) (“the *Graham* factors”). Neither the Petition nor the Preliminary Response presents evidence on the fourth *Graham* factor. We therefore do not consider that factor in this decision.

B. Challenges Based on Joseph

Petitioner contends claims 1 and 16 would have been obvious over Joseph and claims 9 and 24 would have been obvious over Joseph and Meenan. Pet. 4.

1. Claim 1

Petitioner’s element-by-element analysis of claim 1 in relation to Joseph appears at pages 47–63 of the Petition. Petitioner supports its analysis with testimony from its expert, Dr. Jakobsson. Jakobsson Decl. ¶¶ 139–172. Petitioner asserts that each element of claim 1 is disclosed or suggested by Joseph. For the reasons that follow we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge.

a. Preamble [1.0]

The preamble of claim 1 recites a “security system.” Petitioner contends this element is found in Joseph’s security/technical support entity 20. Pet. 47 (citing Ex. 1009, Fig. 14, ¶ 61). Patent Owner responds with the overall argument that Petitioner’s position on Joseph is “inconsistent with positions taken in the ’595 IPR.” Prelim. Resp. 40–41.

Here and in connection with other claim limitations, we do not agree with Patent Owner’s “inconsistency” argument. As explained above, we see no reason to fault Petitioner for reading two different sets of claims differently on a prior art reference, so long as the language of the claims and the reference’s disclosures support those readings. Patent Owner does not

convince us that Petitioner is required to apply the same analysis to these claims as it did to the different claims of the '595 patent or that the analysis applied is inconsistent with Petitioner's prior positions.

Patent Owner challenges Petitioner's identification of security/technical support entity 20 as the claimed "security system." Prelim. Resp. 43–45. This argument will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches the preamble of claim 1.⁸

b. Claim element 1.1

Claim element 1.1 calls for a "security system memory." Petitioner contends this element is met by the memory "inherently and necessarily" present in server 50, server 60, and data base 58 in Joseph. Pet. 48–49 (citing Ex. 1009, Fig. 14). At this stage, Patent Owner does not challenge this particular assertion by Petitioner although, as we discuss *infra*, Patent Owner challenges Petitioner's identification of the security system in Joseph. This argument challenging Petitioner's identification of a security system in Joseph will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches element 1.1 of claim 1.

c. Claim element 1.2.a

This claim element calls for "a communication interface configured to communicate with a mobile device and configured to communicate over a

⁸ We do not express an opinion on whether the preambles of the '632 patent claims are limiting.

network with a security administrator device.” Petitioner identifies network entity 66 in Joseph as the claimed “security administrator device.” Pet. 49. According to Petitioner, “[t]he network entity 66 is a security administrator device because it is used for administrative tasks such as user registration and security service activation for Joseph’s security services.” *Id.* at 49–50 (citing Ex. 1009 ¶¶ 205–212, 222–227, Figs. 14, 15). *See also* discussion of registration and activation in Joseph, *supra*, Section II.C.1.

Patent Owner challenges Petitioner’s identification of network entity 66 as the claimed “security administrator device.” Prelim. Resp. 47–49. This argument will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

Further, Petitioner contends “security/technical support entity 20 (a security system) includes a network interface (a communication interface) to communicate with laptop 12 (a mobile device) and network entity 66 (a security administrator device) over a network.” Pet. 50 (citing Ex. 1009, Fig. 14). Petitioner reasons that in order to communicate over a network, security/technical support entity 20 “necessarily and inherently includes a network interface (a communication interface) to communicate with both laptop 12 and network entity 66.” *Id.* at 50–51 (citing Jakobsson Decl. ¶ 145).

As noted, Patent Owner challenges Petitioner’s identification of security/technical support entity 20 as the claimed “security system.” Prelim. Resp. 42. This argument will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches element 1.2.a of claim 1.

d. Claim element 1.2.b

This claim element calls for “the mobile device including a mobile device processor and including a security agent configured to cooperate with the security system.” Petitioner asserts Joseph discloses this element. Pet. 52. Referring to Figure 2 of Joseph, Petitioner asserts “[a]t least processor 48, power system 40, and SDU 14 together are the claimed “security agent.” *Id.* at 52.

Patent Owner challenges Petitioner’s identification of SDU 14 and processor 48 as the “security agent.” Prelim. Resp. 45–47. This argument challenging Petitioner’s identification of a security agent in Joseph will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches element 1.2.b of claim 1.

e. Claim element 1.2.c

This claim element calls for “the security administrator device having a security administrator processor different than the mobile device processor, the mobile device being remote from the security administrator device.” Petitioner refers back to its analysis of elements 1.2.a. Pet. 54. Petitioner contends “Joseph’s network entity 66 (security administrator device) necessarily and inherently includes a processor because network entity 66 performs a number of tasks, including receiving, processing, and sending messages for user registration and security service activation.” *Id.* (citing Ex. 1009 ¶¶ 211–216). Petitioner contends the processors of laptop 12 and network entity 66 are “different” and their devices “remote.” *Id.* at 54–55.

At this stage, Patent Owner does not challenge this particular assertion by Petitioner although, as discussed *supra*, Patent Owner does challenge Petitioner's identification of the security administrator device in Joseph. This argument challenging Petitioner's identification of a security administrator device in Joseph will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches element 1.2.c of claim 1.

f. Claim element 1.2.d

This claim element calls for “the mobile device being a first computer system, the security system being a second computer system, the security administrator device being a third computer system, the first computer system, the second computer system and the third computer system being separate computer systems.” Petitioner asserts that Joseph discloses this element because “Joseph's laptop 12 (mobile device), security/technical support entity 20 (security system), and network entity 66 (security administrator device) all are separate computer systems.” Pet. 55–56 (citing Ex. 1009, Fig. 14).

At this stage, Patent Owner does not challenge this particular assertion by Petitioner although, as discussed *supra*, Petitioner does challenge Petitioner's identification of the security system and security administrator device in Joseph. This argument challenging Petitioner's identification of a security system and security administrator device in Joseph will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches element 1.2.d of claim 1.

g. Claim elements 1.3 and 1.4.a

These claim elements call for “a security system processor being different than the mobile device processor and different than the security administrator processor, the security system processor being configured to store in the security system memory at least a portion of wake code, the wake code being configured to detect a wake event and to send a wake signal to the mobile device in response to detecting the wake event.”

Petitioner identifies server 50, server 60, and database 58 as having processors that, “individually and collectively,” are the claimed “security system processor.” Pet. 57. Petitioner asserts the processors of security/technical support entity 20 and network entity 66 are separate processors. *Id.* at 58.

Petitioner asserts that in Joseph, during security service activation, security/technical support entity 20 sends a wake up signal to SDU 14, initially in sleep mode, to put the SDU in wake mode. *Id.* (citing Ex. 1009 ¶¶ 229–230). See discussion in Section II.C.1, *supra*.

Petitioner asserts also that Joseph discloses the recited “wake code.” Because it sends wake signals to the laptop containing the SDU, the security/technical support entity “necessarily and inherently includes instructions stored in its memory to perform this functionality, and those instructions are wake code.” *Id.* at 59–60 (citing Jakobsson Decl. ¶ 160).

Patent Owner challenges Petitioner’s assertion that security/technical support entity includes “wake code” and performs the claimed functions of detecting a wake event and send a wake signal to the mobile device. Prelim. Resp. 43–45.

This argument will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches elements 1.3 and 1.4.a of claim 1.

h. Claim element 1.4.b

This claim element calls for “the security agent of the mobile device being configured to receive the wake signal, the security agent of the mobile device being configured to wake at least a portion of the mobile device from a power management mode in response to receiving the wake signal, the security agent of the mobile device being configured to perform security services after the at least a portion of the mobile device has been woken.”

Petitioner contends Joseph discloses this element in describing a laptop containing an SDU configured to receive messages (wake signals) because the laptop wakes up from a sleep mode to a wake mode. Pet. 60. Petitioner contends Joseph’s sleep mode is a “power management mode” because it is a low-power mode of operation. *Id.* (citing Ex. 1006 ¶158). Petitioner explains that when the SDU receives the wake signal, it wakes “at least portion” of the laptop (“namely itself”). *Id.* at 61 (citing Ex. 1009 ¶¶ 229–230). Petitioner contends that the SDU, once awakened, performs a variety of security services. *Id.* (citing Ex. 1009 ¶¶ 75, 134–135, 144; Jakobsson Decl. ¶ 164).

Patent Owner challenges Petitioner’s identification of the SDU as the security agent in Joseph. Prelim. Resp. 45–47. This argument will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches element 1.4.b of claim 1.

i. Claim elements 1.5, 1.6, 1.7.a, and 1.7.b

These claims elements call for the following:

[1.5] detect a particular wake event;

[1.6] prepare a particular wake signal in response to detecting the particular wake event; and

[1.7.a] send the particular wake signal to the mobile device in response to detecting the particular wake event,

[1.7.b] the security agent of the mobile device being configured to wake the at least a portion of the mobile device in response to receiving the particular wake signal and being configured to perform particular security services after the at least a portion of the mobile device has been woken.

Petitioner demonstrates that each of these limitations is disclosed by Joseph. Pet. 63–64; Jakobsson Decl. ¶¶ 167–172. Petitioner refers back to its analysis of claim element 1.4.a, *supra*, describing the receipt of a wake signal by the SDU and the subsequent waking of the SDU. Pet. 63.

Petitioner points out that the security system in Joseph (security/technical support entity 20) detects “particular” wake events distinguishable from other wake events. *Id.*

Petitioner explains that “[a]ny wake signal sent to laptop 12 is a particular wake signal because it is distinguishable from the other wake signals that security/technical support entity 20 may send.” *Id.* Moreover, “Joseph discloses performing a variety of security services, and each of these services is a particular service at least because it is distinguishable from the other specific services.” *Id.* at 64.

As discussed *supra*, Patent Owner challenges Petitioner's identification of the security agent in Joseph. Prelim. Resp. 41. This argument challenging Petitioner's identification of the security agent in Joseph will be discussed *infra*. For reasons discussed there, we do not agree with this argument.

We determine that for the reasons given, Petitioner demonstrates sufficiently that Joseph teaches elements 1.5, 1.6, 17.a.1, and 17.a.2 of claim 1.

j. Patent Owner's Response

Patent Owner's principal argument opposing Petitioner's analysis of claim 1 (and parallel independent claim 16) is that Petitioner utilizes Joseph's teachings differently in this Petition than it did in the '595 IPR. Prelim. Resp. 40–43. For the reasons previously stated, we do not agree with this argument. We disagree that this is problematic. We see nothing untoward in Petitioner presenting a different analysis here, including because the claims differ from those at issue in the '595 IPR.

More substantively, Patent Owner focuses its response on Petitioner's identification (i) of security/technical support entity 20 in Joseph as the claimed "security system," (ii) of SDU 14 and processor 48 in Joseph as the claimed "security agent," and (iii) of network security 66 in Joseph as the claimed "security administrator device." *Id.* at 42–43.

i. security system

Patent Owner contends that Joseph's technical support entity 20 "is *not* a security system that detects a wake event and sends a wake signal to laptop 12 in response." Prelim. Resp. 43. At this stage, we disagree. Petitioner demonstrates that during security service activation,

security/technical support entity 20 sends a wake up signal to SDU 14, initially in sleep mode, to put the SDU in wake mode. Pet. 58–59 (citing Ex. 1009 ¶¶ 229–230). During the activation process, server 60 transmits a message to SDU 14 via wireless network 24. Ex. 1009 ¶ 229. Prior to transmission of this message, the SDU is in sleep mode. *Id.* This message conveys a command to put the sleeping SDU 14 in wake mode. *Id.* In response to receiving this message, SDU 14 puts itself in wake mode. *Id.* ¶ 230.

Patent Owner contends “it is the SDU 14 not the security/technical support entity that sends the wake-up command to laptop 12.” Prelim. Resp. 44. We disagree. As discussed, during activation, it is the security/technical support entity 20 that sends a wake up signal to SDU 14, initially in sleep mode. Ex. 1009 ¶ 229.

At this stage, we determine that Petitioner has demonstrated sufficiently that Joseph’s security/technical support entity 20 meets the “security system” limitation.

ii. security agent

Patent Owner contends that “Petitioner improperly conflates the SDU 14 with the processor 48 to allege that these components collectively map to the claimed ‘security agent.’” Prelim. Resp. 46. As we understand it, Patent Owner’s argument suggests that it is impermissible to combine these elements because “the SDU . . . does not even utilize the processor 48 . . . to execute its program instructions of waking up the device.” *Id.*

We disagree with this argument. Petitioner demonstrates that the SDU and processors 48 work together to provide security services. Pet. 53. Petitioner’s analysis explains that SDU 14 “manages security services by

determining which services should be performed and when, and sending out the appropriate ‘control signal[s]’ to have processors 48 actually perform the services.” *Id.* (citing Ex. 1009 ¶¶ 75, 134–138, 144). Moreover, Patent Owner’s argument overlooks the fact that power system 40 is included in the security agent. *Id.* at 52. Power system 40 “controls whether the laptop computer 12 is powered on (activated) or powered off (deactivated).” Ex. 1009 ¶ 59.

At this stage, we determine that Petitioner has demonstrated sufficiently that Joseph discloses the “security agent” limitation.

iii. security administrator device

Patent Owner contends “Joseph’s network entity 66 does not manage the security engines and security policies and data of a security system, as required by the claim language.” Prelim. Resp. 48. Patent Owner explains further that “network entity 66 merely retrieves activation information that is intended for the SDU 14; it does not manage the security of a security system.” *Id.* at 49.

We do not agree with Patent Owner’s argument because it is based on a construction of “security administrator device” that we did not adopt. *See supra*, Section II.B.2. Instead, we adopted Petitioner’s construction, which is “the plain and ordinary meaning of [security administrator device] includes a device that performs security administration.” Pet. 13 (citing Jakobsson Decl. ¶ 65). Under this construction, Joseph’s network entity is a security administrator device because it performs user activation and user registration, which are administrative tasks. *Id.* at 49–50; *see* description in Section II.C.2, *supra*.

2. Claim 16

Claim 16 is directed to “[a] non-transitory computer readable medium in a security system,” but is otherwise similar to claim 1. Petitioner’s analysis of claim 16 relies on its analysis of claim 1. Pet. 64–66. Patent Owner does not address claim 16 separately, but combines its analysis of claim 16 with its analysis of claim 1. See Prelim. Resp. 43–49. For the reasons given for claim 1, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claim 16.

3. Summary – Claims 1 and 16

We have considered Petitioner’s analysis of claims 1 and 16 in relation to Joseph and the arguments presented in Patent Owner’s Preliminary Response. Prelim. Resp. 40–49. Taking into account the Petition and Patent Owner’s response, we are persuaded that at this stage that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to claims 1 and 16.

4. Claims 9 and 24

Claims 9 and 24 depend from claim 1 and claim 16, respectively, adding the limitation “wherein the performing the particular security services includes removing unauthorized data from the mobile device.” Petitioner provides an element-by-element analysis of these claims in light of Joseph and Meenan. Pet. 66–67; Jakobsson Decl. ¶¶ 179–184. Petitioner relies on Meenan for teaching the additional limitation of “performing a particular security service that includes removing unauthorized data from the mobile device.” Pet. 67.

Petitioner provides a rationale for combining the references. According to Petitioner, “[a person of ordinary skill] also could have

removed unauthorized programs after a Joseph laptop receives a wake signal, just as Joseph discloses performing other security services after receiving a wake signal.” *Id.* (citing Jakobsson Decl. ¶ 180).

Patent Owner’s response to this challenge presents no new arguments, referring back to its prior arguments addressing claims 1 and 16. Prelim. Resp. 49. For the reasons given by Petitioner, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claims 9 and 24.

B. Challenges Based on Hall

Petitioner contends claims 1, 9, 16, and 24 would have been obvious over Hall and claims 9 and 24 would have been obvious over Hall and Meenan. Pet. 4.

1. Claim 1

Petitioner’s element-by-element analysis of claim 1 in relation to Hall appears at pages 17–38 of the Petition. Petitioner supports its analysis with testimony from its expert, Dr. Jakobsson. Jakobsson Decl. ¶¶ 67–115. Petitioner asserts that each element of claim 1 is disclosed or suggested by Hall. For the reasons that follow, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge.

We focus our discussion on the claim elements that are challenged by Patent Owner.

a. security system processor (claim element 1.3)

Claim element 1.3 calls for “a security system processor being different than the mobile device processor and different than the security administrator processor, the security system processor.” Petitioner asserts that Hall meets this limitation. Pet. 27–28. Petitioner asserts Hall’s

backend service center is a security system. *Id.* at 17–18. Petitioner asserts the backend security system provides security, for example, by helping to “protect unauthorized sharing of stored data from or unauthorized usage of the subscriber service.” *Id.* (quoting Ex. 1007 ¶ 27). Petitioner explains that “[e]ach of the computers that makes up the backend service center 150 inherently and necessarily would have its own processor because a processor would be required for the computer to operate, especially as a database or network server.” *Id.* at 27 (citing Jakobsson Decl. ¶ 86; Ex. 1007 ¶ 33). Moreover, “[t]he processors of backend service center 150 (a security system) and the processor of the second subscriber device 110₂ (a security administrator device) are different processors because these two systems are separate from one another.” *Id.* at 27–28.

Patent Owner responds that “Hall’s architecture does not contemplate that the backend service center include a wake code configured to detect a wake event and send wake signals to the subscriber device 110₁ in response to detecting a wake event. Rather, Hall explains that its wireless messages are remote events, that the MySync module detects such events and sends commands to the subscriber device 110₁ in response.” Prelim. Resp. 32 (emphasis omitted).

We disagree. Petitioner demonstrates sufficiently that Hall’s backend server detects wake events and sends wake signals meeting the claim. Pet. 28–31. Petitioner explains that the backend service center sends wake signals to a mobile device (laptop 110₁) in response to detecting that the status of laptop 110₁ has been set to stolen. Pet. 28–29. “At least in the case where laptop 110₁ is in an S5 state (shutdown) the backend service center 150 necessarily and inherently will first have to send it the wake

signal described above in order for the laptop to carry out actions to be performed in the event that subscriber device 1101 is stolen, such as delete files.” *Id.* at 29 (citation and internal quotation marks omitted).

In addition, Petitioner demonstrates sufficiently that Hall discloses “wake code.” *Id.* Petitioner asserts that “the backend service center 150 (security system) performs a wake function that includes detecting wake events and sending wake signals to mobile devices. The backend service center 150 therefore necessarily and inherently includes instructions stored in its memory to perform this functionality and those instructions are wake code.” *Id.* at 29–30 (citing Jakobsson Decl. ¶ 93).

We conclude that Petitioner sufficiently demonstrates that Hall discloses the claimed security system and security system processor.

b. security administrator device (claim element 1.2.a)

Claim element 1.2.a calls for “a communication interface configured to communicate with a mobile device and configured to communicate over a network with a security administrator device.” Petitioner identifies the second subscriber device 110₂ in Hall as the claimed security administrator device: “The second subscriber device 110₂ is a security administrator device because it lets a user perform security-related administration of his or her devices, including indicating whether a device has been stolen and what corresponding actions to take with respect to the stolen device.” Pet. 18–19.

Patent Owner responds that Hall’s second subscriber device 110₂ is not a security administrator device because it “does not manage the security of a security system.” Prelim. Resp. 38 (emphasis omitted). Patent Owner continues that “[d]espite notifying the backend service center (which Petitioner alleges is the claimed ‘security system’), the second subscriber

device 110₂ does not manage the security of the of the backend service center given that the notification simply prompts the backend service center to send a message to the subscriber device 110₁.” *Id.* at 39.

We do not agree with Patent Owner’s argument because it is based on a construction of “security administrator device” that we did not adopt for this decision. *See supra*, Section II.B.2. We, instead, adopted Petitioner’s construction, which is “the plain and ordinary meaning of [security administrator device] includes a device that performs security administration.” Pet. 13 (citing Jakobsson Decl. ¶ 65). Hall discloses that a user can use subscriber device 110₂ to access a user interface and report the status of a subscriber device as “stolen.” *Id.* at 18–20; Ex. 1007 ¶¶ 64–66; Fig. 6D. Under our construction, Hall’s subscriber device 110₂ is a security administrator device because it performs administrative tasks, e.g., establishing an account, configuring an account, and setting status of a device to “stolen.” Pet. 18–19; *see* Ex. 1007, Figs. 6A–6D.

We conclude that Petitioner sufficiently demonstrates that Hall discloses the claimed security administrator device.

c. security agent (claim elements 1.2.b, 1.4.b)

Claim element 1.2.b calls for “the mobile device including a mobile device processor and including a security agent configured to cooperate with the security system.” Claim element 1.4.b recites “the security agent of the mobile device being configured to receive the wake signal, the security agent of the mobile device being configured to wake at least a portion of the mobile device from a power management mode in response to receiving the wake signal, the security agent of the mobile device being configured to perform security services after the at least a portion of the mobile device has

been woken.” Petitioner identifies the MySync module and the MyGuard application as the claimed security agent. Pet. 31.

Patent Owner responds that Hall does not disclose a security agent that performs the recited functions. Prelim. Resp. 34. Patent Owner argues that Petitioner “conflates” Hall’s MySync module and MyGuard module. *Id.* at 35. Patent Owner asserts that “[w]hile the MySync module detects a wake event, it is not configured to perform security services.” *Id.*

We disagree. Petitioner explains that “[t]he MySync module is a security agent because it provides security services, such as ‘services that are used by security-based applications to protect unauthorized access of stored data from or unauthorized usage of the subscriber device.’” Pet. 23 (quoting Ex. 1007 ¶ 27).

Petitioner explains further that the MySync module receives a wake signal from the backend service center. *Id.* at 32 (citing Ex. 1007 ¶ 102). In response to receiving the wake signal it wakes at least a portion of the laptop 110₁ from one of the power management modes. *Id.* (citing Ex. 1007 ¶ 34). Petitioner explains that the wake message is processed by the MySync module, which performs the awakening. *Id.* at 33 (citing Ex. 1007 ¶ 109). Further, Petitioner explains that “the MySync module and MyGuard application (together, a security agent) perform actions such as ‘Shutdown’ using the ‘remote desktop manager 285’ process.” *Id.* at 34 (citing Ex. 1007 ¶ 86, Fig. 2B).

Patent Owner’s “conflation” argument is unavailing. Figure 2B of Hall (Prelim. Resp. 36) and the accompanying text demonstrate that the MySync module and MyGuard application communicate with each other and work together. Ex. 2007 ¶ 45. Thus, XML messages received by

MySync module 240 are parsed and security-based instructions routed to MyGuard application 270₁ which includes a number of process directed to security. *Id.* In light of this close connection between the MySync module and the MyGuard application, we discern no sound reason they should not be considered together as a security agent.

We conclude that Petitioner sufficiently demonstrates that Hall discloses the claimed security agent.

2. Claim 16

Petitioner's analysis of claim 16 relies on its analysis of claim 1. Pet. 38–40. Patent Owner does not address claim 16 separately, but combines its analysis of claim 16 with its analysis of claim 1. *See* Prelim. Resp. 31–39. For the reasons given for claim 1, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claim 16.

3. Summary—Claims 1 and 16

We have considered Petitioner's analysis of claims 1 and 16 in relation to Hall and the arguments presented in Patent Owner's Preliminary Response. Prelim. Resp. 31–39. Taking into account the Petition and Patent Owner's response, we are persuaded that at this stage that Petitioner has sufficiently demonstrated a reasonable likelihood of prevailing on this challenge to claims 1 and 16 based on Hall.

4. Claims 9 and 24

Petitioner provides an element-by-element analysis of these dependent claims in light of Hall (Pet. 37–38, 40) and Hall and Meenan (*id.* at 42–45). *See also* Jakobsson Decl. ¶¶ 116, 121–133. Petitioner relies on

Meenan for teaching “performing a particular security service that includes removing unauthorized data from the mobile device.” Pet. 42–43.

Petitioner provides a rationale for combining the references. For example, according to Petitioner, “[a person of ordinary skill] also could have removed unauthorized programs [as described by Meenan] using Hall’s MySync module and MyGuard application (together, a security agent) because they already perform other security services.” *Id.* at 43.

Patent Owner’s response to this challenge presents no new arguments, referring back to its arguments addressing claims 1 and 16. Prelim. Resp. 40. For the reasons given by Petitioner, we determine that Petitioner has sufficiently demonstrated a reasonable likelihood of prevailing on this challenge.

VI. CONCLUSION

For the foregoing reasons, we have determined that there is a reasonable likelihood that the Petitioner would prevail with respect to at least one of the claims challenged in the Petition. We therefore institute trial as to all challenged claims on all grounds stated in the Petition. We decline also to exercise our discretion to deny institution under 35 U.S.C. § 314(a) or § 325(d).

VII. ORDER

Upon consideration of the record before us, it is:

ORDERED that *inter partes* review of claims 1, 9, 16, and 24 of the ’632 patent is instituted on all grounds in the Petition;

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; the trial will commence on the entry date of this decision

IPR2021-01236
Patent 10,951,632 B2

PETITIONER:

Robert Buergi
Michael Burns
DLA Piper LLR (US)
robert.buergi@dlapiper.com
michael.burns@dlapiper.com

PATENT OWNER:

James Hannah
Jeffrey Price
Jenna Fuller
KRAMER LEVIN NAFTALIS &
FRANKEL LLP
jhannah@kramerlevin.com
jprice@kramerlevin.com
jfuller@kramerlevin.com