

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VIVINT, INC.,
Petitioner,

v.

SB IP HOLDINGS LLC,
Patent Owner.

IPR2022-01364
Patent 8,144,184 B2

Before JAMESON LEE, KARL D. EASTHOM, and
JON M. JURGOVAN, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 314

I. INTRODUCTION

Vivint, Inc., Petitioner, filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of dependent claims 14 and 15 of U.S. Patent No. 8,144,184 B2 (Ex. 1001, the “’184 patent”), which depend from unchallenged claim 1, supported by the Declaration of Dr. Bertrand Hochwald (Ex. 1034). Pet. 4. SB IP Holdings LLC, Patent Owner, did not file a preliminary response.

After the Institution Decision (Paper 8, “Inst. Dec.”), Patent Owner filed a Response (Paper 11, “PO Resp.”) with a Declaration of Dr. Robert Akl (Ex. 2012). Petitioner filed a Reply (Paper 13, “Reply”), supported by the Reply Declaration of Bertrand Hochwald (Ex. 1051). The parties did not request an oral hearing and the Board held no hearing. Paper 15.

For the reasons set forth in this Final Written Decision pursuant to 35 U.S.C. § 318(a), we determine that Petitioner demonstrates by a preponderance of evidence that challenged claims 14 and 15 of the ’184 patent are unpatentable.

II. BACKGROUND

A. *Real Parties in Interest*

The parties identify themselves as real parties in interest. Pet. 1; Paper 3, 2. Petitioner also states that “Vivint, Inc. is an indirect subsidiary of Vivint Smart Home, Inc., which is merely a holding company.” Pet. 1.

B. *Related Matters*

The parties identify the following proceedings as related matters involving the ’184 patent: *SB IP Holdings LLC v. Vivint Smart Home, Inc.*, No. 4:21-cv-00912 (E.D. Tex.); *Vivint, Inc. v. SB IP Holdings, LLC.*, No. 8:22-cv-00034 (C.D. Cal.) (declaratory judgment action without

invalidity assertion, transferred July 27, 2022 to No. 4:21-cv-00912, Eastern E.D. Tex.). *See* Paper 3, 2–3; Pet. 1–2.

The parties identify IPR2022-00811 as challenging claims 1–13 and 16–20 of the ’184 patent. *See* Paper 3, 2; Pet. 2; *Vivint Smart Home, Inc. v. SB IP Holdings*, IPR2022-00811, Paper 16 at 44 (PTAB Nov. 3, 2023) (determining unpatentable all challenged claims, claims 1–13 and 16–21) (the “’811 IPR FWD” or generally the “’811 IPR”).

In addition to the ’811 IPR, the parties identify the following *inter partes* reviews as involving related patents challenged by Petitioner: IPR2022-00810, IPR2022-00812, IPR2022-00813, IPR2022-00814, IPR2022-01352, and IPR2022-01365. Paper 3, 2; Pet. 1–2.

C. The ’184 Patent

The ’184 patent relates to an “audio-video communication system” having a “wireless exterior module located proximate an entrance” that includes a “video camera” and “remote peripheral device[s]” for “viewing an image from the video camera.” Ex. 1001, code (57).

Figure 1 follows:

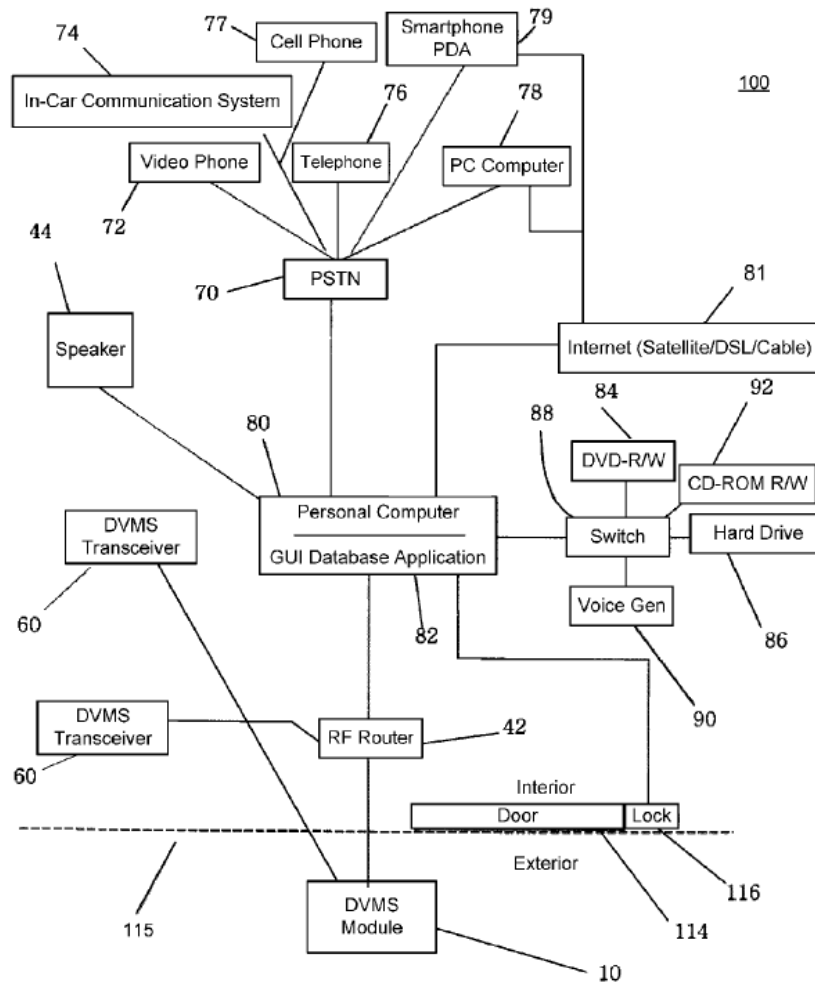


FIG. 1

Figure 1 above depicts a schematic diagram of system 100 with wireless module 10 (bottom) located proximate door 114 at the exterior side of a home or office, with personal computer 82 (middle) in the interior of the home or office, and peripheral devices (top), which include video phone 72, telephone 76, cell phone 77, and PC computer 78, etc., and which communicate with personal computer 82 via public switching telephone network (PSTN) connection 70 or broadband connection 81. Ex. 1001, 6:41–54, 7:13–17, 7:50–67, 8:61–9:3.

Figure 2 follows:

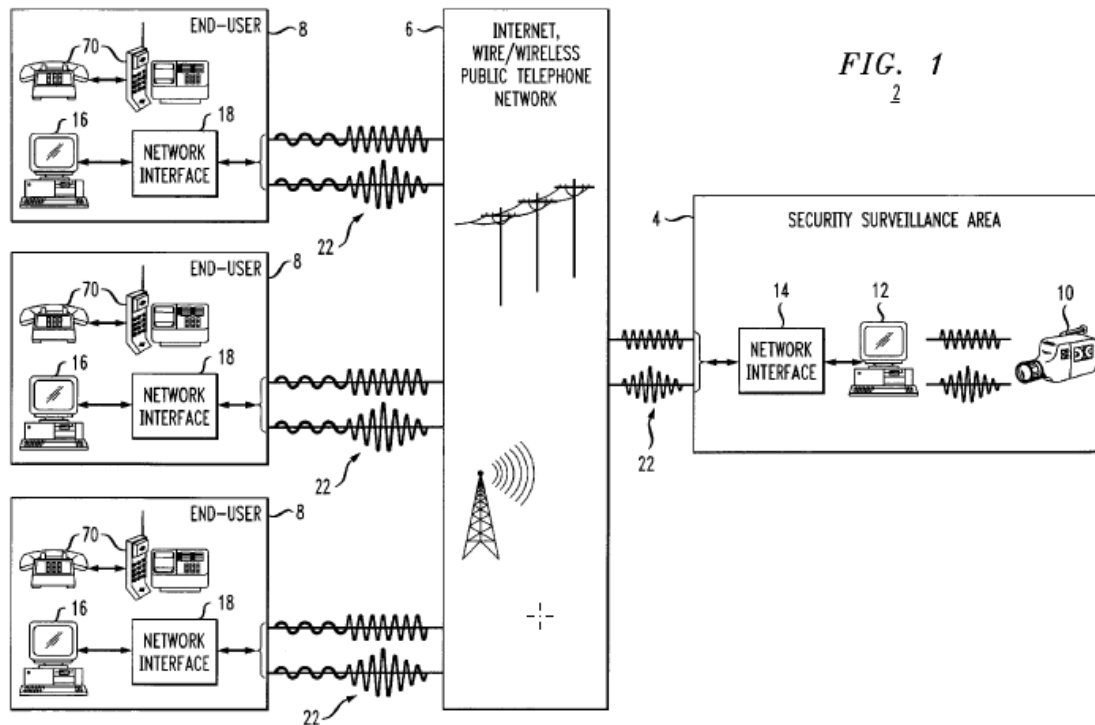


Figure 2 above illustrates security surveillance area 4 with local computer system 12 and wireless module 10, connected via network interface 14, connection 22, and communications network 6 to end-user locations 8, which each comprise a remote computer system 16, network interface 18, and one or more optional communication devices (e.g., telephone, beeper, fax, or wireless device). Ex. 1001, 3:14–36, 4:5–14.

Wireless module 10 includes “a video camera 22; speakers 12; a proximity sensor 26; a microphone 20; an LCD display 16; a quick connect electrical receptacle 24; and a radiofrequency receiver/transmitter represented by antenna 18.” Ex. 1001, 7:58–62.

D. Illustrative Claims

Claims 1, 14, and 15 follow:¹

1. A detection and viewing system, comprising:

(a) a wireless device associated with a door and configured to communicate video data, the wireless device including a camera for providing the video data;

(b) a sensor for activating the camera;

(c) a plurality of peripheral devices, each peripheral device associated with a respective user; and

(d) a computer configured for communication with the wireless device and configured for communication with each of the peripheral devices;

(e) wherein the computer executes software, in accordance with which,

(i) the association of each of the peripheral devices with a respective user is maintained,

(ii) video data from the wireless device is received by the computer upon actuation of the sensor, and

(iii) a graphical user interface is provided through which video data from the wireless device is accessible by each respective user using one of the peripheral devices.

14. The detection and viewing system of claim 1, wherein the wireless device and at least one of the peripheral devices are configured for communications via text messaging.

15. The detection and viewing system of claim 1, wherein the wireless device is portable, has a locking mechanism, and an electrical receptacle for quickly attaching to a source of electricity, and wherein the wireless device further includes a portable energy device.

¹ As indicated at the outset, Petitioner challenges claims 14 and 15 and does not challenge claim 1.

E. Asserted Grounds of Unpatentability

Petitioner contends that claims 14 and 15 are unpatentable as follows:²

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
15	103(a)	Vaios, ³ Menard, ⁴ Saylor ⁵
14	103(a)	Vaios, Sabie, ⁶ Menard, Saylor
14	103(a)	Vaios, Jae, ⁷ Menard, Saylor
15	103(a)	Vaios, Schnell, ⁸ Menard, Saylor
14	103(a)	Naidoo-068, ⁹ Sabie, Vaios, Saylor
14	103(a)	Naidoo-068, Jae, Vaios, Saylor
15	103(a)	Naidoo-068, Schnell,

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. § 103. Petitioner contends that “[t]he earliest potential effective filing date of the claims of the ’184 patent is October 15, 2002.” Pet. 3. Assuming for purposes of the Final Written Decision that this is correct, the ’184 patent’s effective filing date is before the March 16, 2013 effective date of the applicable AIA amendment, and the pre-AIA version of § 103 applies.

³ U.S. Patent No. 6,271,752 B1, issued Aug. 7, 2001 (Ex. 1003).

⁴ PCT Pub. No. WO 01/093230 A1, published Dec. 6, 2001 (Ex. 1004).

⁵ U.S. Patent No. 6,661,340 B1, published Dec. 9, 2003, filed Apr. 24, 2001 (Ex. 1008).

⁶ PCT Pub. No. WO 01/65875 A1, published Sept. 7, 2001 (Ex. 1035).

⁷ Korean Patent Pub. No. 2001-0084277, published Sept. 6, 2001 (Ex. 1011).

⁸ U.S. Patent No. 6,735,387 B1, issued May 11, 2004, filed Jan. 10, 2001 (Ex. 1031).

⁹ U.S. Patent No. 8,520,068 B2, issued Aug. 27, 2013, filed Sept. 18, 2001, (Ex. 1007).

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
		Vaios, Saylor

Petitioner supports its Petition with the Declaration of Dr. Bertrand Hochwald. Ex. 1034.

III. ANALYSIS OF THE GROUNDS

A. Legal Standards

Under 35 U.S.C. § 103(a), “[a] patent claim is unpatentable if the differences between the subject matter sought to be patented 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.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (similar language). “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *Id.* at 416 (citing *United States v. Adams*, 383 U.S. 39, 50–51 (1966)). The question of obviousness involves resolving underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and when presented (4) objective evidence of non-obviousness (not presented here). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Determining whether an invention would have been obvious under 35 U.S.C. § 103 requires resolving the level of ordinary skill in the pertinent art at the time of the effective filing date of the claimed invention. *Graham*,

383 U.S. at 17. The person of ordinary skill in the art is a hypothetical person who knows the relevant art. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). Factors in determining the level of ordinary skill in the art include the types of problems encountered in the art, the sophistication of the technology, and educational level of active workers in the field. *Id.* One or more factors may predominate. *Id.*

Petitioner contends that “[a] person of ordinary skill in the art (‘POSITA’) for the ’184 patent is generally one who has a Bachelor’s degree in computer science, electrical engineering, or a related field, with two years of experience in audio and/or video processing, networked communication systems, sensor systems, and/or remote monitoring systems.” Pet. 7 (citing Ex. 1034 ¶¶ 21–24).

Patent Owner contends that Petitioner’s declarant, Dr. Hochwald, “rel[ies] on conclusory statements regarding a person of ordinary skill in the art.” PO Resp. 2. Patent Owner contends that Dr. Hochwald “lists a handful of factors” and “fails to provide any analysis of those factors with which the Board can determine” whether his opinion “is based on sufficient facts or data; . . . is the product of reliable principles and methods; and . . . reliably applied the principles and methods to the facts of the case.” *Id.* (citing Ex. 1034 ¶¶ 21–23; quoting Fed. R. Evid. 702) (alterations in original). Patent Owner contends that we should afford Dr. Hochwald’s conclusory opinion no weight. *Id.* In addition, Patent Owner contends that Dr. Hochwald’s opinion is a “black box” such that “each of Petitioner’s grounds lack a reliable prerequisite determination of the level of skill of a [person of ordinary skill in the art] and are flawed as a result.” *Id.*

In reply, Petitioner contends that Dr. Hochwald “explains the factors that he considered in establishing the proposed level of skill in the art.”

Reply 1 (citing Ex. 1034 ¶¶ 21–24). Specifically, Dr. Hochwald states that he considered the following: (1) the types of problems encountered in the art, (2) prior solutions to those problems, (3) rapidity with which innovations are made, (4) sophistication of technology at the time of the invention, and (5) educational levels and experience of persons working in the field and capable of understanding the applicable scientific and engineering principles. Ex. 1034 ¶ 22. The factors considered by Dr. Hochwald align with precedent. *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986) (citing *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 697 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984)). Dr. Hochwald acknowledges that not all such factors may be present in every case, and one or more of them may predominate. *See id.* at 962–63; Ex. 1034 ¶ 22.

In addition, Petitioner contends that “the prior art itself often establishes the level of skill in the art at the time of the invention.” Reply 1. Petitioner contends that “the level of skill in the art . . . proposed by Petitioner and adopted by the Board is supported by the prior art.” *Id.* (citing Pet. 7; Inst. Dec. 16–17).

Petitioner further argues that Patent Owner’s “criticisms are undercut by its own expert’s adoption of a similar if not higher level of skill in the art, and his admission that his opinions would be the same” under either proposed level. Reply 2 (citing Ex. 2012 ¶ 36; Ex. 2011, 12:6–14:21). Specifically, Patent Owner’s expert, Dr. Akl, states that

a [person of ordinary skill in the art] would have had a Bachelor’s degree in electrical engineering, computer engineering, computer science, or a related field, and two to four years of experience in the design or development of telecommunication systems, including work in the field of video communication

systems, or the equivalent. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education.

Ex. 2012 ¶ 36 (testifying as to the level of skill for a related patent sharing a common specification with the '184 patent, U.S. Patent No. 8,154,581 B2 (the "'581 patent"), in related IPR2022-00812 (the "'812 IPR")).¹⁰

Petitioner contends that "while either level of skill could be adopted by the Board as consistent with the teachings of the prior art, neither would discernibly affect on the outcome of this proceeding." Reply 2.

We agree with Petitioner that the two proposed levels of ordinary skill in the art are similar and any differences are immaterial to the outcome of this case. Reply 2 (citing Ex. 2011, 12:6–14:21). We apply Dr. Akl's proposal, as we did in related IPR2022-01352 (Paper 20, 11–13), because it includes an upper limit of four years of experience, and also provides that graduate education could substitute for professional experience or significant experience in the field could substitute for formal education in addition to similar qualifications as Petitioner proposes. In addition, Patent Owner's statement of the level of ordinary skill in the art is consistent with the content of the applied prior art references. *Okajima v. Bourdeau*, 261 F.3d

¹⁰ Petitioner notes that Dr. Akl's declaration testimony (Ex. 2012) is from the related '812 IPR, but Petitioner does not object to it as impermissible hearsay or as otherwise unreliable here. See Reply 2 n.1. Patent Owner also filed the deposition testimony of Dr. Akl (Ex. 2011) from the '812 IPR, which includes cross-examination of his declaration testimony (Ex. 2012) from the '812 IPR. Compare Ex. 2012 (Dr. Akl's '812 IPR declaration) and Ex. 2011 ('812 IPR deposition conducted April 18, 2023) and Ex. 2012, with '812 IPR, Ex. 2003 (Dr. Akl's '812 IPR declaration) and Ex. 1031 ('812 IPR deposition conducted April 18, 2023).

1350, 1354–55 (Fed. Cir. 2001) (the applied prior art may reflect an appropriate level of skill).

Accordingly, we apply Patent Owner’s proposal for the level of ordinary skill in the art in this Final Written Decision.

C. Claim Construction

In *inter partes* reviews, the Board interprets claim language using the district-court-type standard, as described in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b) (2020). Under this standard, claim terms have their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1313–14.

Petitioner generally relies on “the ordinary and customary meaning.” Pet. 7 (citing 37 C.F.R. § 42.100(b); *Phillips*, 415 F.3d at 1312–13). “Patent Owner does not take a position regarding the need for claim construction at this time.” PO Resp. 1.

Claim 15 recites a “[t]he detection of viewing system of claim 1, wherein the wireless device . . . has a locking mechanism.” The ’581 patent uses the term “locking mechanism” to refer to (1) structure 28 of the DVMS that “enables the DVMS module to be installed securely whenever holstered” (Ex. 1001, 8:14–18, Fig. 2); and (2) a structure 2114 that receives an access code to unlock a door (*id.* at 18:44–46, Fig. 6) and similarly, “an electronically actuated lock 116 for selectively locking and unlocking the door 114” (*id.* at 6:49–51, Fig. 1).

In particular, the ’184 patent describes the first type of “locking mechanism” as follows:

The DVMS module 10 also includes a locking mechanism 28 for receipt in a mounting holster (not shown). The locking mechanism 28 enables the DVMS module 10 to be installed securely wherever holstered, or to be moved to some other remote location, as desired. The DVMS module 10 thus is portable, much like a cell phone, and can be securely mounted and quickly connected to an electrical source.

Ex. 1001, 8:14–20. As described above, for the first type of “locking mechanism,” the ’184 patent indicates that it removably secures the camera module within a “mounting holster (not shown)” or enables the camera module to be “securely mounted and quickly connected to an electrical source.” *Id.*

As to the second type of locking mechanism, as Petitioner also notes, Patent Owner asserted in infringement contentions that claim 15’s locking mechanism reads on a “‘Keyless Entry Smart Locks & Electric Door Lock’ in which an app can be used ‘to let visitors and delivery people inside your home or garage.’” *See* Pet. 28 (quoting Ex. 1033, 13; citing *id.* at 12–14). This is in line with the description in the specification of the second type of locking mechanism as described above. *See* Ex. 1001, 18:44–46, Fig. 6, 6:49–51, Fig. 1.

The Petition implies a construction of claim 15’s “locking mechanism” as 1) structure that allows for “securely mounting the [wireless] device” to another structure (Pet. 53–54) or 2) “is capable of engaging an disengaging a lock,” including the “ability to operate a ‘deadbolt lock’” (*id.* at 28). The plain and ordinary meaning in light of the ’184 patent specification supports Petitioner.

On this record, “locking mechanism” encompasses two types of structures, as Petitioner argues: 1) structure that renders the wireless module

capable of secure installment and 2) structures that are capable of operating a lock including an electronically actuated deadbolt lock.

Claim 15 does not require any particular structure or configuration for the “locking mechanism.” Patent Owner does not offer any contrary construction. *See* PO Resp. 1 (“Patent Owner does not take a position regarding the need for claim construction at this time.”).

There is no other dispute concerning the meaning of claim terms. Accordingly, no additional express claim construction is necessary for this Final Written Decision. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that “we need only construe 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. Petitioner’s Expert Testimony

Patent Owner contends that “Petitioner violates 37 C.F.R. § 42.6(a)(3) by [citing Dr. Hochwald’s declaration], which includes pages of arguments and evidence that are not in the Petition.” PO Resp. 21. Patent Owner further argues that “all facts . . . that are not specifically discussed in the Petition should be disregarded by the Board.” *Id.*

Patent Owner does not identify what arguments, evidence, or facts it alleges to have been incorporated by reference improperly from Dr. Hochwald’s declaration into the Petition. Consequently, Patent Owner has not demonstrated that Petitioner committed the violation it asserts, nor has Patent Owner shown that the circumstances here warrant imposing the severe consequence of disregarding Petitioner’s expert’s declaration. In other words, Patent Owner’s arguments are conclusory because they do not

cite to underlying evidence. *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017).

E. The Grounds

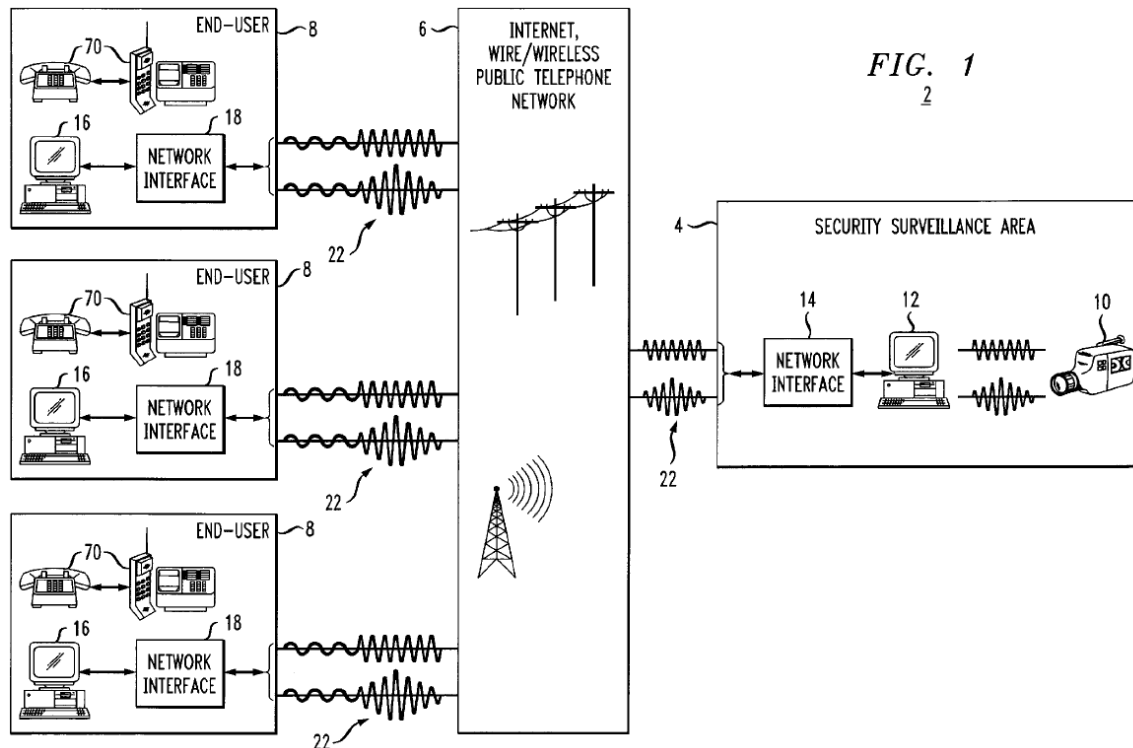
1. Vaios, or Vaios, Menard, and Saylor (Ground 1)

Claim 15 depends from claim 1. As noted above, Petitioner does not challenge claim 1 in this proceeding. Petitioner, however, asserts that Vaios discloses all of the elements of claim 1, alternatively, all elements of claim 1 would have been met under 35 U.S.C. § 103(a) by “Vaios in combination with Menard and/or Saylor.” Pet. 8. Patent Owner disagrees. *See* PO Resp. 22–49.

a) Vaios

Vaios discloses a “multi-access remote system having a security surveillance area [and] a plurality of end user locations.” Ex. 1003, code (57). “The security surveillance area” includes “a local computer system, a camera with motion sensor, and a network interface. When the motion sensor detects an obstruction, the camera starts recording and the local computer system notifies a remote individual” *Id.* Vaios’s “multi-access remote system” includes “viewing of . . . a house entrance.” *Id.* at 9:49–53; *see also id.* at 8:36–38, Fig. 4.

Figure 1 of Vaios follows:



Vaios's Figure 1 shows multi-access remote system 2 with security surveillance area 4, end user locations 8, and communications network 6 for establishing connection 22 with security surveillance area 4 and end user locations 8. Ex. 1003, 3:14–23. Security surveillance area 4 comprises local computer system 12 coupled to network interface 14 (left) and to video camera 10 (right) having a motion sensor. *Id.* at 3:24–27.

Local computer system 12 couples to camera adapter 116, which in turn couples to video camera 10, which transmits video, sound, and motion sensor data to local computer system 12, which transmits instructions or other data video camera 10. Ex. 1003, 3:27–32, Fig. 2. Network interface 14 (Fig. 1) couples local computer system and video camera to communication network 6 to communicate with one or more end user locations 8 via connection 22. *Id.* at 3:32–36. Local computer system 12 includes fixed storage means 109, modem 110, operating system software

111, network adapter 112, audio/video coder/decoder 114, application programming interface module 131, and application software 136. *Id.* at 3:37–4:4, 5:36–49.

End user locations 8 comprise remote computer systems 16, network interface 18, and one or more optional communicative devices 20 such as a telephone or wireless device. Ex. 1003, 4:5–14. Remote computer systems 16 each “comprise the same software and hardware computer components as the local computer system.” *Id.* at 4:15–17.

b) Menard

Menard “relates generally to communication and control systems, and in particular, to a wireless, modular, system suitable for . . . premises security and personal safety.” Ex. 1004, 1:6–10. Menard’s wireless system includes building maintenance and control, premises security, and personal safety. *Id.* The system comprises a security sensor and a wireless transceiver communicating using a network protocol. *Id.* at 4:11–13. The sensor may include a motion sensor, a passive infrared motion detector, pressure sensor, position sensor, proximity sensor, glass breakage sensor, or a video camera. *Id.* at 4:16–18.

Menards' Figure 1 follows:

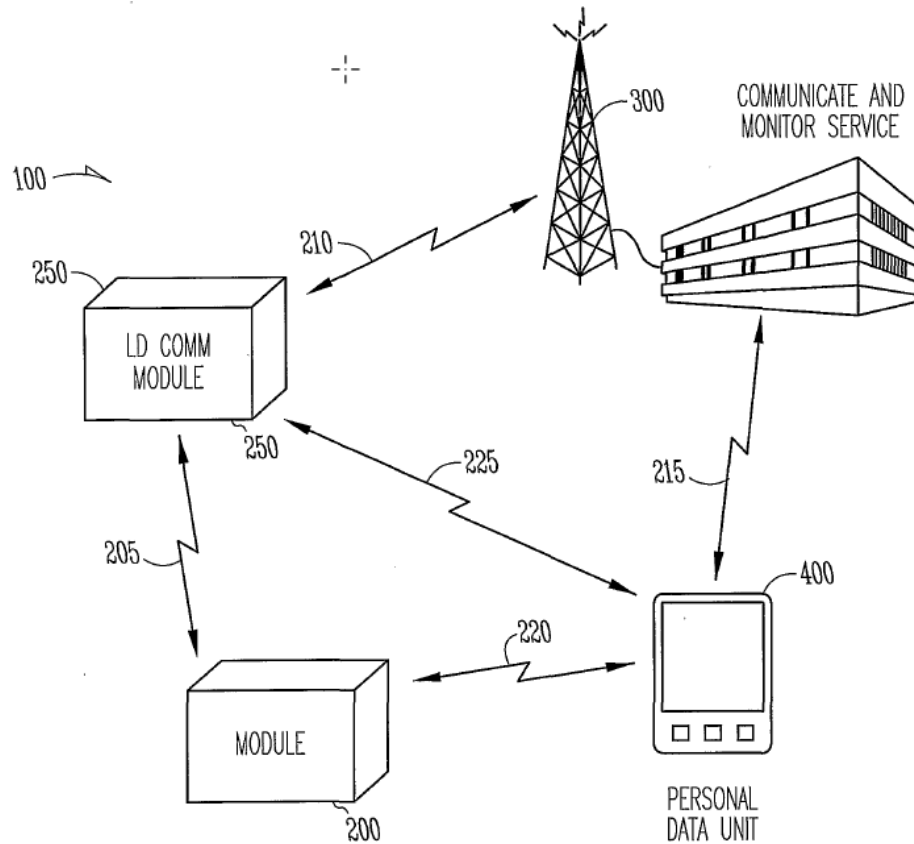


Figure 1 shows system 100, which includes “module 200, long distance communication (‘LD comm’) module 250, communication and monitor service facility (‘facility’) 300, and personal data unit (‘PDU’) 400.”¹¹ Ex. 1004, 12:20–23. Module 200, in response to a sensed or detected condition, generates and wirelessly transmits digital data to LD comm module 250. *Id.* at 12:29–13:4. Additionally, module 200 is also in wireless communication with PDU 400 via link 220. *Id.* at 12:27–28.

LD comm module 250 transmits the received signal to facility 300. Ex. 1004, 13:8–9. LD comm module 250 is also in communication with PDU 400 via link 225. *Id.* at 13:12–13. After receiving the digital data

¹¹ PDU 400 can be a two-way pager (“400A”), a cellular phone (“400B”), or a personal digital assistant (“PDA 400C”). Ex. 1004, 19:9–15.

transmitted by module 200, PDU 400 displays or renders the information in a manner useful to a person carrying PDU 400, and provides an audible signal to the user. *Id.* at 13:17–19.

Menard's Figure 7 follows:

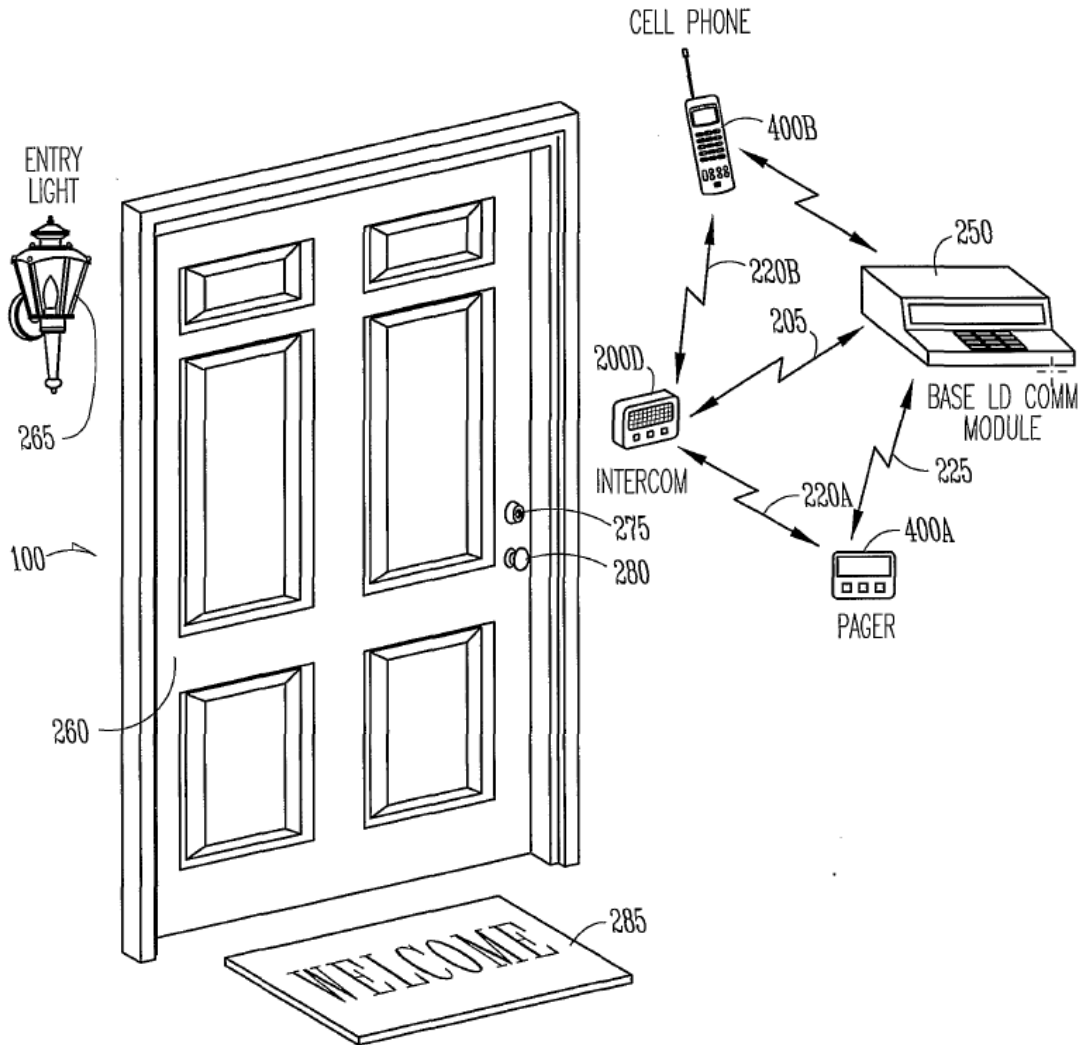


Figure 7 illustrates an entry door with Menard's system. Ex. 1004, 10:31–32. Module 200D is mounted on the exterior of the residence and is proximate to entry door 260. *Id.* at 19:32–20:1. Module 200D is in wireless communication with PDU 400B (cellular telephone), PDU 400A (two-way pager), and base 250A, which includes LD comm module and user operable

controls and display to enable programming and operation of system 100.

Id. at 20:2–8. Menard discloses the following:

In operation, a caller at entry door 260 can initiate communication with a user via a PDU. For example, in one embodiment, a caller arriving at locked door 260 can operate module 200D in much the same way as a doorbell, that is, by activating a prominent and conspicuous button. Module 200D then encodes and communicates a digital message for transmission to PDU 400. The digital message may be communicated directly from module 200 to PDU 400B, for example, either directly (via link 220B), or indirectly, via LD comm module 250A. In one embodiment, the communication to, and from, module 200D involves a BLUETOOTH® channel. In this example, the user receives notification of the presence of the caller by means of PDU 400B. The user, and PDU 400B, may be located inside the residence, in which case a direct connection using link 220B may be possible. Alternatively, the user, and PDU 400B, may be located outside of the residence, in which case, an indirect link, including link 205 coupling the LD comm module 250A may be employed. In either case, the caller is unlikely to perceive the actual location of the user. Furthermore, by way of operating the controls or a numeric keypad on PDU 400B, the user may control the operation of entry light 265 or lock 275 and thereby grant access to the premises for the caller.

Id. at 20:13–31.

Figure 9 of Menard follows:

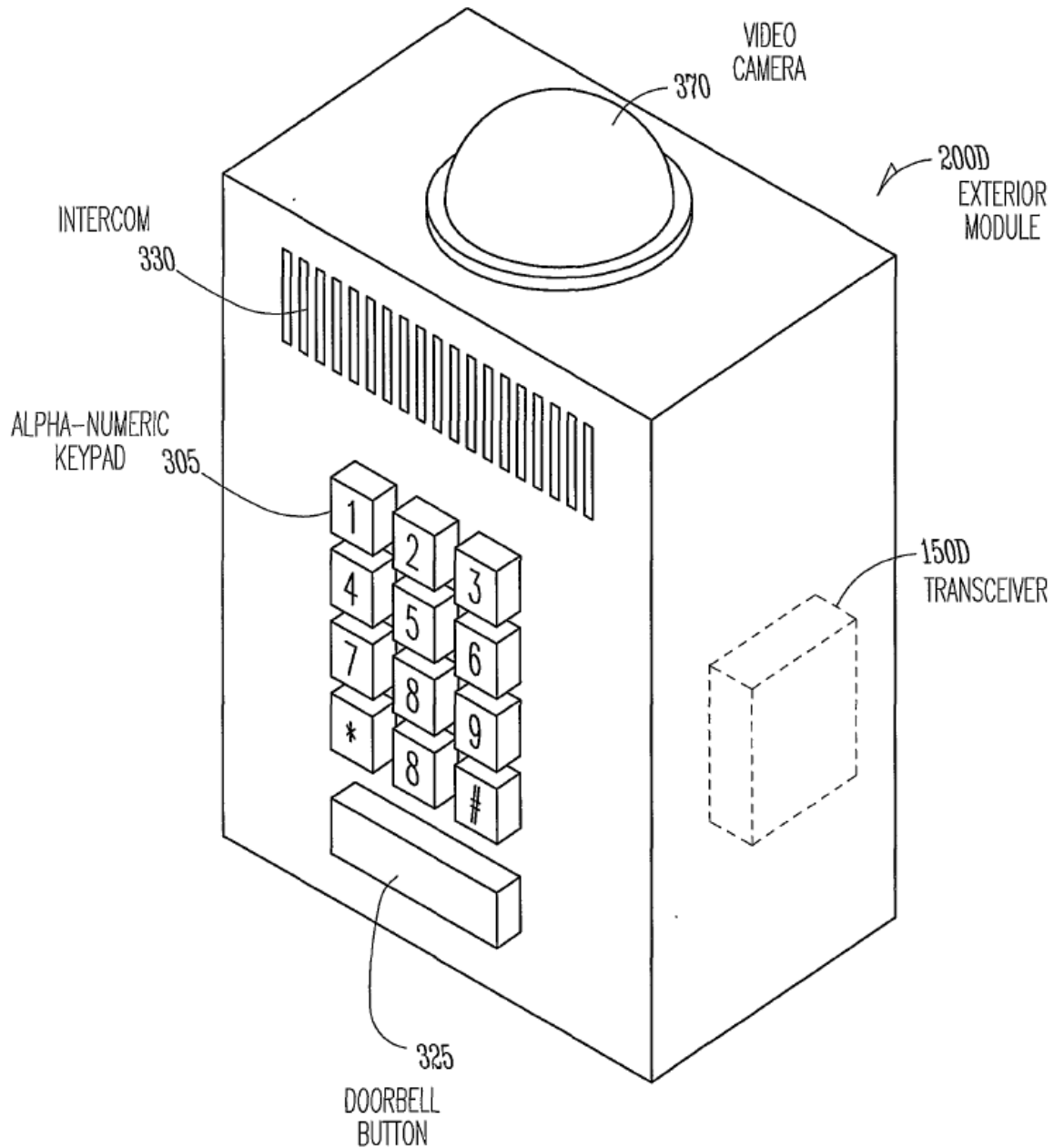


Figure 9 depicts exterior module 200D having video camera 370 and transceiver 150D. Ex. 1004, 23:15–17. Video camera 370 detects the caller's arrival. *Id.* at 21:13–14. In response to actuation of doorbell button 325, or detection by camera 370, exterior module 200D transmits a wireless signal. *Id.* at 21:11–15.

Figure 10 of Menard follows:

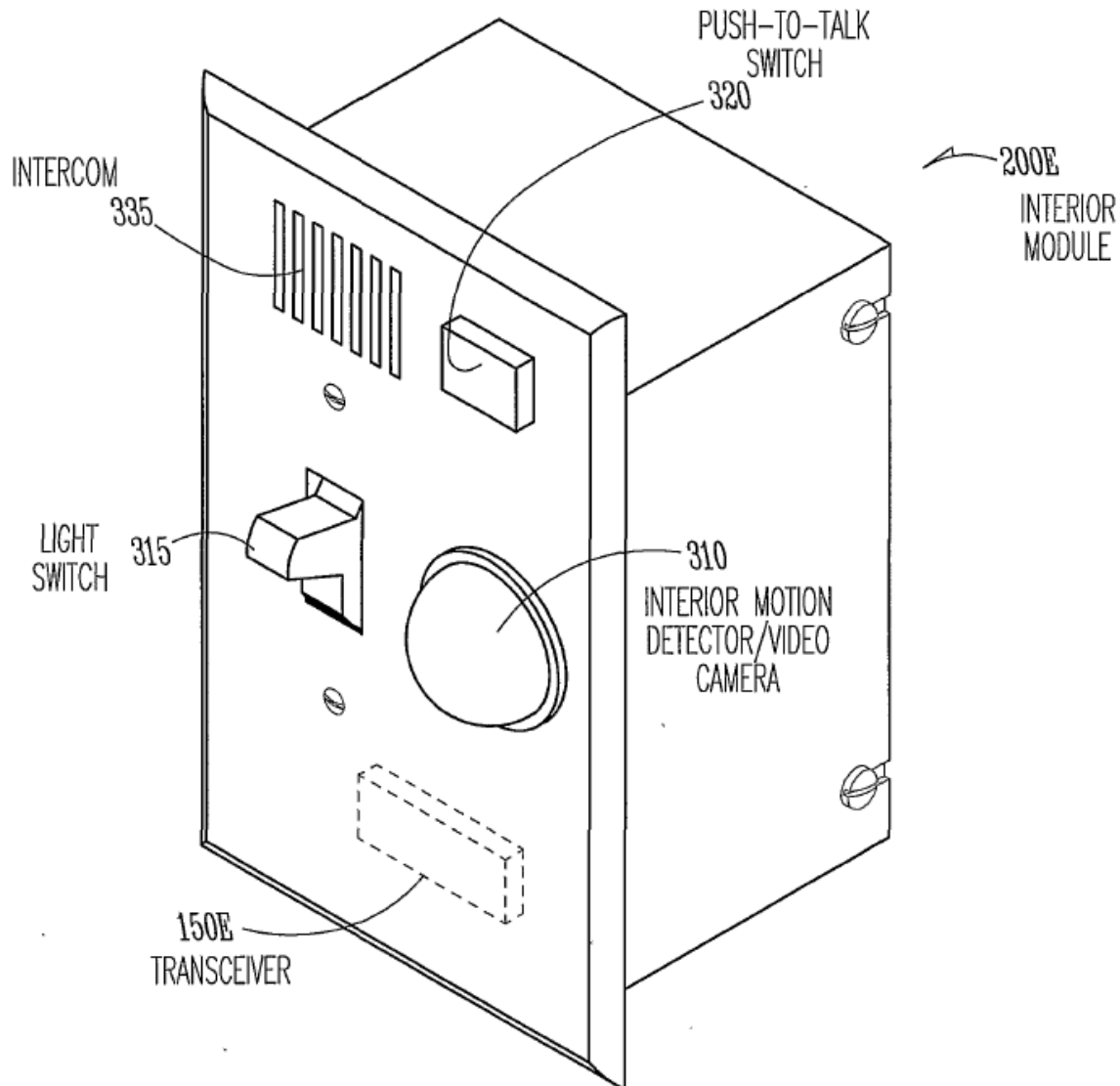


Figure 10 depicts interior module 200E having intercom 335, push-to-talk (“PTT”) switch 320, interior motion detector/video camera 310, transceiver 150E and light switch 315. Ex. 1004, 22:29–31.

c) Saylor

Saylor relates to a personal security network. Ex. 1008, code (57). In using the security network, “a user may set up personalized alarms and alert services, identify various methods of contact; order at which to be contacted;

individuals and entities to be contacted; type of situations to be alerted of and other relevant security and other information.” *Id.*

d) Limitations of Claims 14 and 15 via Claim 1

As indicated above, Petitioner does not challenge claim 1 in this trial, but claims 14 and 15 depend from claim 1 and therefore include the limitations thereof. Petitioner reads elements of claim 1 onto Vaios, and optionally, Vaios, Menard and/or Saylor. *See* Pet. 8–13. As also indicated above, the Board determined in the ’811 IPR that Petitioner persuasively showed that claim 1 would have been obvious based on Vaios, Menard and/or Saylor. *See* ’811 IPR FWD 44 (determining “that Petitioner shows by a preponderance of evidence that . . . claim 1 [of the ’184 patent] would have been obvious over the combined teachings of Vaios with Menard, and/or Saylor”). The following analysis of claim 1 partially tracks the analysis of claim 1 in the ’811 IPR FWD, because the parties’ showings and arguments overlap somewhat in a materially similar manner across the two proceedings.

(1) Claim 1’s Preamble

The preamble of claim 1 recites “[a] detection and viewing system, comprising.” Petitioner asserts that even if the preamble is limiting, Vaios discloses it. Pet. 8. In particular, Petitioner points to Vaios as disclosing a “multi-access remote system having a security surveillance area [and] a plurality of end user locations.” *Id.* at 8 (alteration in original) (quoting Ex. 1003, code (57)). Petitioner also quotes the following passage in Vaios:

The security surveillance area is comprised of a local computer system [12], a camera [10] with motion sensor, and a network interface. When the motion sensor detects an obstruction the camera starts recording and the local computer system notifies a

remote individual Using an end user location . . . the remote individual can . . . view video images.

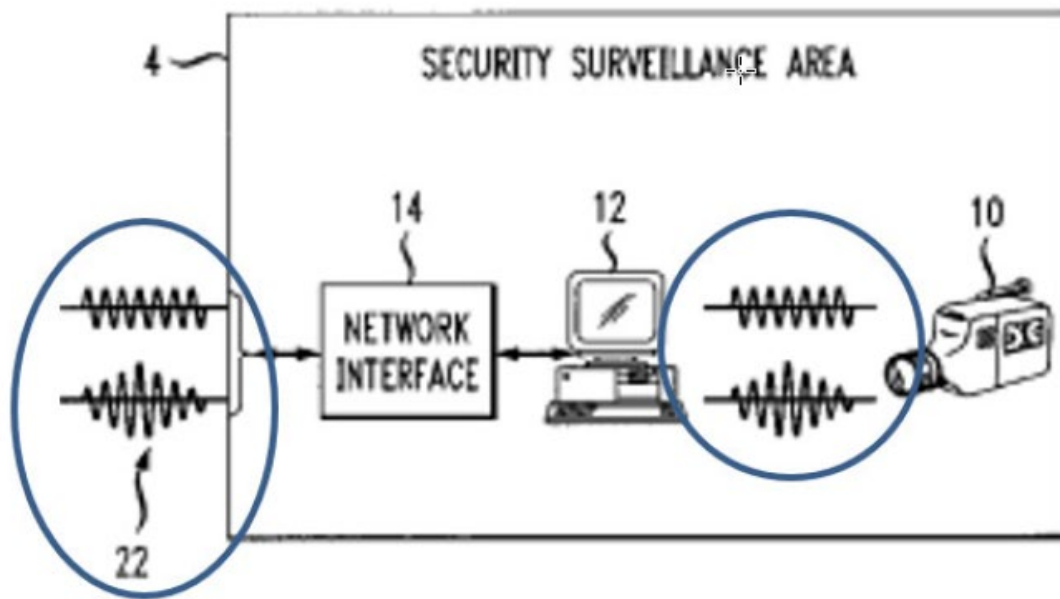
Pet. 8 (alterations in original) (quoting Ex. 1003, code (57)).

Even if the preamble is limiting, Petitioner’s showing with respect to the preamble is persuasive. Patent Owner does not address Petitioner’s showing with respect to the preamble. *See generally* PO Resp.

(2) *Limitation 1(a)*

Limitation 1(a) recites “a wireless device associated with a door and configured to communicate video data, the wireless device including a camera for providing the video data.” Petitioner asserts that Vaios’s “‘video camera 10’ is coupled to ‘local computer system 12’ so that ‘video, sound, and motion sensor data can be transmitted from the camera to the local computer system.’” Pet. 9–10 (quoting Ex. 1003, 3:24–30; citing *id.* at Fig. 1). Petitioner also contends that Vaios’s video camera 10 “is associated with a door, as evidenced by Vaios’[s] disclosure that ‘a monitoring site can be created to control viewing of . . . a house entrance’ ([Ex. 1003,] 9:49–53) and that the cameras provide a ‘door view’ (*id.*, 7:62–8:4).” *Id.* at 10 (citing Ex. 1034 ¶ 102).

Petitioner contends that Vaios teaches that video camera 10 is a wireless device. Petitioner annotates and reproduces a portion of Figure 1 of Vaios to support this contention, as follows:



Petitioner annotates a portion of Vaios’s Figure 1 with blue lines encircling squiggly lines 22 on the left of network interface 13 and also between local computer 12 and camera 10. *See* Pet. 10. Petitioner explains that because Vaios employs the same types of squiggly lines to indicate a connection, a person of ordinary skill would have understood that the connections are the same “wireless connections,” thereby “confirming that video camera 10 is a ‘wireless device.’” *See id.* at 11 (citing Ex. 1034 ¶ 106 (“Given that a similar graphic as that depicted for the connection 22 is shown between local computer system 12 and video camera 10, a [person of ordinary skill in the art] would further recognize that similar wireless connections may be made between video camera 10 and local computer system 12 and thus video camera 10 is a wireless device.” (emphasis omitted))). Petitioner partly bases this wireless contention on Vaios’s disclosure with respect to wireless “connection 22.” *Id.*

Specifically, Petitioner contends that Vaios’s connection 22 “includes communication types that were commonly wireless (e.g., LAN, WAN,

Internet, satellite).” Pet. 10 (citing Ex. 1003, 3:19–23, 4:30–65). At the latter cited passage, Vaios discloses that “connection 22 . . . include[s] the Internet, a local area network (LAN), a wide area network (WAN), a bidirectional cable, a satellite or any other communications or computer structure that enables two remote computer systems to interoperate.” Ex. 1003, 4:30–43. Based on this passage and Vaios’s Figure 1, Dr. Hochwald testifies that because Vaios “provide[s] examples of wired and wireless connections (e.g., satellite would involve wireless communications), a [person of ordinary skill in the art] would recognize that the connection 22 includes wireless communication networks.” Ex. 1034 ¶ 106.

As summarized above, Petitioner relies on descriptions of logical connection 22 to communications network 6 as wireless and ties these teachings to the similar depictions of squiggly lines for the connection between video camera 10 and local computer 12. *See* Pet. 8–9; Ex. 1034 ¶ 106. Vaios states that “[c]onnection 22 is *a temporary* or permanent logical connection that allows the security surveillance area and the end user systems *to exchange data and communicate though the communications network*, and can be *established in a number of ways*.” Ex. 1003, 4:43–47 (emphasis added). Figure 1 depicts “WIRE/WIRELESS” communications network 6 connected between connections 22. *See also id.* at 3:32–36.

Dr. Hochwald notes that Vaios describes remotely controlled cameras for “*touring*, class attendance, and other viewing sites . . . , since remotely controllable cameras can be positioned *at any location or scenic lookout* and remote users can control dynamically which area they wish to view.” Ex. 1034 ¶ 103 (emphasis added) (quoting Ex. 1003, 9:57–61). Vaios also indicates a general need to eliminate “expensive” cabling (i.e., to implement

wireless). For example, Vaios states that one of the prior art problems for small businesses and individuals, which Vaios's system overcomes, is that, in the prior art, "expensive cables need to be installed" to "view a smooth high quality stream of video from a remote location," and "even if proper cabling can be installed," individuals and businesses "may desire a surveillance system that is accessible from any location, not only those that have cabling." Ex. 1003, 1:52–59.

Patent Owner argues that Vaios does not disclose a wireless device for a number of reasons. PO Resp. 23–30. Patent Owner's arguments focus on isolated teachings in Vaios and fail to undermine Petitioner's showing that Vaios suggests a wireless connection, as discussed below. *See id.* In addition, because Petitioner alternatively asserts obviousness based on the combined teachings of Vaios and Menard, there is no need to decide if Vaios discloses a wireless device.

Specifically as to Vaios, notwithstanding Patent Owner's arguments which largely focus on what Vaios's "squiggly lines" represent and also on unsupported "teaching away" allegations (*see* PO Resp. 23–30), an artisan or ordinary skill would have recognized that Vaios's disclosure of a limited genus for network connections (i.e., with only two species, wired and wireless) at least suggests that Vaios's video camera is wireless. *See VirnetX Inc. v. Apple Inc.*, 665 F. App'x 880, 884–85, 888 (Fed. Cir. 2016) (nonprecedential) (holding that "[s]ubstantial evidence supports the PTAB's finding that Wesinger's disclosure of the genus 'computer' encompasses the 'notebook computer' species"); Inst. Dec. 16 (similar finding). In support of this determination, as seen above, Vaios's Figure 1 depicts a video camera without any wires attached thereto. Vaios does not explicitly describe video camera 10 as either a wired device or a wired device, and as summarized

above, Vaios generally describes wired and wireless connections for video and other transmissions with a preference toward eliminating expensive cables. As another example, Vaios specifically discloses a “wireless device” at end user locations 8. Ex. 1003, 4:5–11; *see also id.* at Fig. 2.

Dr. Hochwald’s testimony further supports this finding:

[S]uch wireless communication would have been obvious to a [person of ordinary skill in the art] at the time of the alleged invention based on Vaios alone. Wired and wireless communications were well-known and interchangeable alternatives to each other prior to the ’184 patent. That is, communications between devices (such as a camera and a computer) could be set up to occur wirelessly, using wires, or a combination of the two with predictable results.

Ex. 1034 ¶ 107.

Patent Owner’s arguments further support our finding that Vaios discloses the only two known species for connection, wired and wireless, by virtue of the “squiggly lines” in Vaios’s Figure 2 as described above. Specifically, citing the testimony of Dr. Akl, Patent Owner argues that “a [person of ordinary skill in the art] on October 15, 2002, would not consider the squiggly lines between camera 10 and local computer 12 to mean a wireless connection *because modulation exists in both wired and wireless connections.*” PO Resp. 25–26 (citing Ex. 2012 ¶¶ 65–66). At the cited testimony, Dr. Akl testifies that “[m]odulated signals are used in both wired and wireless connections so modulation, without more, *is not indicative of a wired or a wireless connection.*” Ex. 2012 ¶ 66 (emphasis added).

Patent Owner also argues that Vaios teaches away from a wireless connection between the exterior video camera and a local computer because of “bandwidth issues associated with sending uncompressed video files wirelessly.” *See* PO Resp. 47–48 (citing Ex. 2012 ¶¶ 76–78; Ex. 2011,

186:4–187:9), 29–30 (citing Ex. 1003, 2:34–41). A reference teaches away if it “criticizes, discredit, or otherwise discourages” investigation into the invention claimed. *General Elec. Co. v. Raytheon Tech. Corp.*, 983 F.3d 1334, 1345–46 (Fed. Cir. 2020) (citing *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056 (Fed. Cir. 2018); *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009)).

Even if an artisan of ordinary skill would have thought that transferring video wirelessly at the time of the invention requires compression, Patent Owner and Dr. Akl Patent Owner’s teaching away argument is not within the scope of the challenged claims, because claims 1, 14, and 15 do not preclude compressed video or require uncompressed video. “Evidence concerning whether the prior art teaches away from a given invention must relate to and be commensurate in scope with the ultimate claims at issue.” *Idemitsu Kosan Co., Ltd. v. SFC Co., Ltd.*, 870 F.3d 1376, 1381 (Fed. Cir. 2017) (“Idemitsu’s teaching away argument is of questionable relevance anyway. Evidence concerning whether the prior art teaches away from a given invention must relate to and be commensurate in scope with the ultimate claims at issue.”)).

Moreover, contrary to Patent Owner’s assertions, Vaios does not describe bandwidth issues in a manner that would have discouraged an artisan of ordinary skill from transmitting video files. Vaios teaches compressing, transmitting, and downloading an entire image file from local computer system 12 at remote computer devices 16 or communication devices 20 for end-users to view at remote location 8, who view “the entire image” after downloading to “avoid[] video stream difficulties associated with bandwidth limitations.” See Ex. 1003, 2:34–40, Fig. 1, 3:48–50 (disclosing “a variety of compression formats, such as MPEG or PKZIP,

prior to transmission” from local computer system 12 to end user-location 8). But Vaios does not mention any bandwidth or compression issues with respect to the video camera. *See id.* In addition, Patent Owner’s expert, Dr. Akl, stated that he did not know whether wireless video transmission required compression at the time of the ’184 patent. *Id.* (citing Ex. 2011, 60:21–61:4). As Petitioner also argues, the ’184 patent does not mention compression as necessary for wireless communications. Reply 6 (citing Ex. 2013 ¶ 55; Ex. 1003, 9:21–26). Patent Owner’s arguments that Vaios teaches away from wireless video contradict its argument and evidence (testimony) that Vaios does not disclose a preference for wired or wireless video. *See* PO Resp. 25 (arguing that Vaios does “not teach a [person of ordinary skill in the art] *to favor either a wired or wireless connection*” with respect to the video camera (emphasis added) (citing Ex. 2012 ¶¶ 65–66)); Ex. 2012 ¶ 66 (similar).

In addition, Petitioner argues persuasively that there were other ways of addressing low-bandwidth connections at the time that do not require compression, including lowering video quality. Reply 6 (citing Ex. 2013 ¶ 55; Ex. 1003, 9:21–26). In support Dr. Hochwald testifies that “Vaios explicitly discusses lowering the quality of the content being transmitted to accommodate low bandwidth connections.” Ex. 2013 ¶ 55 (citing Ex. 1003, 9:21–26). At the cited passage, Vaios states that “the user may incorporate *live low-quality video streaming* with this method, by continuously monitoring the security surveillance area with a low quality video stream and subsequently downloading selected images for high quality viewing.” Ex. 1003, 9:21–26 (emphasis added).

The record supports Petitioner’s arguments at the cited passages. Moreover, the challenged claims do not require high video quality or even video streaming (“on-the-fly” viewing). As Petitioner also explains,

where the data transfer rate to a remote device is slow (such as for dial-up Internet) as compared to the transfer rate between the camera and local computer (such as for Bluetooth or WLAN), data could easily be transmitted without compression from the camera to the local computer, and then compressed at the local computer for further transmission.

Reply 6–7 (citing Ex. 2013 ¶¶ 56–57); *see also* Ex. 1003, 9:10–26 (describing techniques after capturing video from the camera to include compression if the Internet is low bandwidth and “insufficient for high-quality live video streaming”).

The part of Vaios that Patent Owner cites to as supporting its teaching away argument states as follows (PO Resp. 29–30 (citing Ex. 1003, 2:34–41)):

The local computer system first captures a predetermined length of video, compresses the file, and transmits it to the remote user who *subsequently* plays the downloaded image *in high-quality*. This method avoids video stream difficulties associated with bandwidth limitations because *the entire image is downloaded to the remote computer before viewing*.

Ex. 1003, 2:34–41 (emphasis added). As indicated above, this statement and similar statements in Vaios relate to the connection between the local computer system and the remote computer. The passage shows that compression promotes “high quality” video viewing by the downstream user. The passage further shows that the video file with the entire image is already present at the remote computer when the remote user seeks to view it so that in addition to providing low quality video streaming as discussed above, Vaios contemplates not providing on-the-fly video streaming for real-

time viewing that otherwise may raise bandwidth issues for the camera. *See id.* Patent Owner’s arguments and Dr. Akl’s testimony apparently assume, without stating it explicitly, that Vaios and the challenged claims require a high bandwidth to process data on-the-fly for high quality video viewing. *See* PO Resp. 47–48 (discussing a need in Vaios to process “a lot of data” or “raw data” where the “link between the camera and local computer system . . . has the systems’ highest bandwidth requirement”) (citing Ex. 2012 ¶¶ 76–78; Ex. 2011, 186:4–187:9)). Like Vaios, however, the challenged claims do not require high quality viewing of video data on-the-fly in real time. In summary as to Vaios, Vaios generally describes either compressing the captured video from the camera at the local computer system and transmitting it to the end-user who plays down-loaded video in high quality or “monitoring the security surveillance area with a low quality video stream and subsequently downloading selected images for high quality viewing.” *See* Ex. 1003, 9:10–26.

Petitioner also shows persuasively that compression technologies were well known at the time of the invention, and would have been recognized as one of several options available for use in the combination of Vaios and Menard (including the option of lowering video quality as discussed above). *See* Reply 6–7 (citing Ex. 2013 ¶¶ 55–58 (showing MPEG was a known standard); Ex. 2011, 60:21–61:4). The record supports Petitioner’s showing that compression standards and methods for addressing bandwidth limitations were well-known at the time. For example, Petitioner cites to evidence showing the “commercial availability of wireless cameras as of the priority date,” which supports the showing. *Id.* at 7 (citing Ex. 2013 ¶¶ 37–41, 54–57 (citing Ex. 1003, 9:13–26; Ex. 1039, 2:46–65, 16:27–

45, 19:36–55, 25:6–26, 25:38–26, Figs. 32–35; Ex. 1040, 4:26–31; Exs. 1041–1046).

Based on the forgoing discussion, Vaios does not “criticize, discredit or discourage” wireless communications or even describe difficulties in the use thereof. As noted above, contrary to its teaching away arguments, Patent Owner otherwise agrees that Vaios does “not teach a [person of ordinary skill in the art] *to favor either a wired or wireless connection*” with respect to the video camera. PO Resp. 25 (emphasis added).

Addressing obviousness based on the combined teachings of Vaios and Menard, Petitioner cites Menard’s security system, which includes wireless “exterior module 200D” including video camera 360 “mounted on the exterior of [a] residence and proximate to entry door 260.” *See* Pet. 11–12 (alteration in original) (quoting Ex. 1004, 19:30–20:2; citing *id.* at Figs. 7, 8). Petitioner contends that Menard suggests implementing Vaios’s camera as a wireless device based on advantages of “easier camera installation and maintenance” and also because this “combination merely incorporates known elements (e.g., radio frequency transmitter and receiver) into the device/camera of Vaios (or alternatively simply substitutes wireless connections and component parts for the connections between cameras 10 and local computer system 12) in a known manner to yield predictable results.” *Id.* at 13 (citing Ex. 1034 ¶¶ 112–115).

Petitioner also asserts that “[s]uch a combination merely incorporates known elements (e.g., radio frequency transmitter and receiver) into the device/camera of Vaios (or alternatively simply substitutes wireless connections and component parts for the connections between cameras 10 and local computer system 12) in a known manner to yield predictable results.” Pet. 13 (citing Ex. 1034 ¶¶ 112–115). Petitioner also argues that

“the proposed combination offered advantages that would have motivated a [person of ordinary skill in the art] to make the combination, such as easier camera installation and maintenance,” with a “reasonable expectation of success . . . given the widespread knowledge and adoption of wireless communication protocols in security systems and other networks.” *Id.*

Patent Owner responds that “the Petition fails to provide any motivation to combine any of the references beyond . . . generic reasons,” which include “advantages . . . such as easier camera installation and maintenance,” “desirability of creating portable cameras/monitoring devices,” and “the advantage of enabling a user to grant access to a secured location using a remote device.” PO Resp. 41–42 (quoting Pet. 13, 17, 32). Patent Owner does not assert that the reasons are too generic to support obviousness. *See id.* In any event, as discussed below, Petitioner’s reasons are not too generic to support obviousness because they relate to specific advantages of using portable wireless cameras and factual underpinnings support the reasons.

For example, as discussed above, Vaios expresses a desire to eliminate cabling in general in order to provide remote access, which results in a “cleaner” and more compact system, with a “more efficient” product. Ex. 1003, 1:52–59. *See DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006) (“[W]e have repeatedly held that an implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient.”); Inst. Dec. 17–18 (similar finding). Dr. Hochwald supports this

finding, testifying that eliminating wiring reduces installation costs and provides easier access for maintenance without “needing to access the hidden wiring,” and greater flexibility in location and re-location. Ex. 1034 ¶ 115. Therefore, for these additional reasons, Vaio with or without Menard, in light of common knowledge by artisans of ordinary skill about problems that wireless features address (i.e., problems wires present), supported by the testimony of Dr. Hochwald, suggests using a wireless device for capturing video. *See DyStar*, 464 F.3d at 1361 (“The motivation need not be found in the references sought to be combined, but may be found in any number of sources, including common knowledge, the prior art as a whole, or the nature of the problem itself.”).

Patent Owner also argues that Menard “lacks disclosure of a ‘wireless device.’” PO Resp. 31. According to Patent Owner, Menard’s module 200D uses Bluetooth wireless technology, but “Bluetooth was not used to wirelessly transmit videos or images” before the priority date of the ’184 patent. *Id.* at 31–32 (citing Ex. 2012 ¶¶ 87–89, 91; Ex. 2007, 139, 1007). Bluetooth is a form of wireless transmission as Patent Owner acknowledges. *See id.* at 31–33.¹²

¹² Patent Owner also generally argues that “Menard provides no enablement for its various embodiments, instead focusing solely the general concept of remote monitoring without attention to the limitations of such monitoring.” PO Resp. 10. Patent Owner does not support this argument with evidence. Menard, a prior art reference, carries a presumption of enablement. *See In re Antor Media*, 689 F.3d 1282, 1287–1288 (Fed. Cir. 2012); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003); *Apple Inc. v. Corephotonics, Ltd.*, No. 2020-1438, 2021 WL 2577597, at *4 (Fed. Cir. June 23, 2021) (holding that in the context of AIA trial proceedings, “regardless of the forum, prior art patents and publications enjoy a presumption of enablement, and the patentee/applicant has the burden to prove nonenablement for such prior art” and that “[i]t was error for the

Patent Owner’s arguments are unavailing. Petitioner does not rely solely on Menard’s Bluetooth wireless embodiment for transfer of video. Even if it does, as Petitioner argues, “Menard expressly describes ‘exterior module 200D’ as providing ‘wireless communication’ of ‘*real-time video images*’ via Bluetooth.” Reply 8 (emphasis added) (quoting Ex. 1004, 20:8–10 (Bluetooth “wireless communication”), 13:27–29 (“wireless communication”), 21:11–28 (“exterior module 200D transmits a wireless signal” and “an appropriate command causes exterior module 200D to . . . transmit said image to PDU 400,” including a “still image or real-time video images”); 12:23–31 (“Module 200 is in wireless communication with LD comm module 250 via link 2[0]5”); citing *id.* at 14:25–15:30 (disclosing wireless protocols including Bluetooth) and also IEEE 802.15 WPAN), 16:1–12 (disclosing Bluetooth for module 200 with respect to Fig. 3A), 20:20–22 (disclosing Bluetooth for module 200D with respect to Figure 7)). Therefore, contrary to Patent Owner’s arguments, as Petitioner shows, Menard specifically discloses that video camera 370 of exterior module

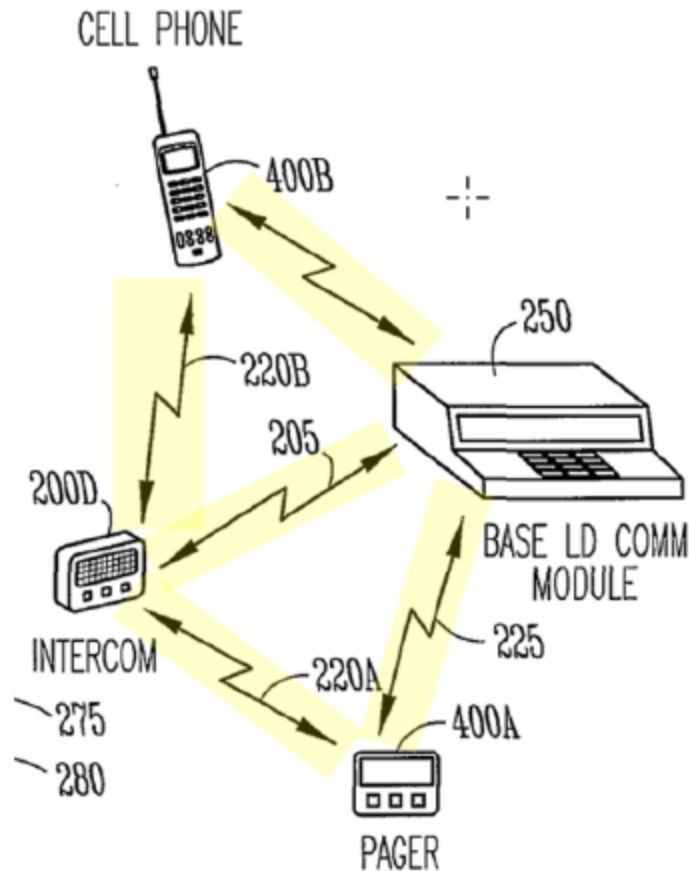
Board to suggest otherwise”). Also, it is not clear how this attorney argument relates to Petitioner’s showing, which relies on combining Menard’s teachings with Vaios. See *Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551 (Fed. Cir. 1989). An individual prior art reference “need not be enabled; it qualifies as a prior art, regardless, for whatever is disclosed therein.” *Amgen*, 314 F.3d at 1357; *Raytheon Techs. Corp. v. Gen. Elec. Co.*, 993 F.3d 1374, 1380 (Fed. Cir. 2021) (“In general, a prior art reference asserted under § 103 does not necessarily have to enable its own disclosure, i.e., be ‘self-enabling,’ to be relevant to the obviousness inquiry.”); *Symbol Techs., Inc. v. Opticon, Inc.*, 935 F.2d 1569, 1578 (Fed. Cir. 1991) (“While a reference must enable someone to practice the invention in order to anticipate under § 102(b), a non-enabling reference may qualify as prior art for the purpose of determining obviousness under § 103.”).

200D transmits “*real-time video images*” wirelessly via Bluetooth “[i]n one embodiment.” Ex. 1004, 21:15–26 (emphasis added).

Also, at the cited passage, Menard states that “[i]n one embodiment, the wireless communication between module 200D and base 250A includes BLUETOOTH[] communication technology.” Ex. 1004, 20:8–10 (emphasis added). Prior to that statement, Menard states that “[e]xterior module 200D is also *in wireless communication* with base 250A.” *Id.* at 20:5–6. In other words, Menard does not restrict the wireless communication of module 200D to Bluetooth. *See* Pet. 11–13 (relying generally on Menard’s wireless communication of exterior module 200D (citing Ex. 1004, 19:30–20:6, Fig. 7; Ex. 1034 ¶¶ 107–115); Reply 8 (arguing that Menard’s module 200D transmits a “still image or real-time video images” (quoting Ex. 1004, 21:11–28)).¹³

As Petitioner also argues, Patent Owner “acknowledges that Menard uses ‘lightning bolt symbols’ to denote wireless communications sent from exterior module 200D . . . , making its assertion that Menard’s ‘exterior module 200D’ is not wireless even more implausible.” Reply 8 (citing PO Resp. 27). At cited page 27 of the Response, Patent Owner reproduces and annotates a portion of Menard’s Figure 7, as follows:

¹³ Patent Owner also argues that “no wireless exterior module in Vaios contains a ‘transmitter,’ ‘receiver,’ or ‘speaker for playing audio to the person at the entrance,’ as required by Claim 20.” PO Resp. 9. Claim 20 is not at issue here.



According to Patent Owner, annotated partial Figure 7 of Menard above “uses the lightning bolt symbol [highlighted in yellow] to denote wireless connections.” PO Resp. 27 (citing Ex. 1004, Fig. 7). As partial Figure 7 portrays, the wireless connection includes a connection between exterior module 200D and base LD comm module 250. As described above, module 200D includes “a video camera” and it transmits a “still image or real-time video images.” Ex. 1004, 4:16–18, 21:25–26. Therefore, Menard discloses that its module 200D includes wireless communication of video via Bluetooth or otherwise.

Patent Owner also argues that “Dr. Hochwald admitted in a related IPR” that the proposed combination of Vaios with Menard’s Bluetooth wireless network would only “readily apply to the network interfaces

contemplated in Vaios *if the distances involved permitted it.*” PO Resp. 46–47 (quoting Ex. 2014 ¶ 204). Patent Owner contends that “there is no evidence in the record concerning whether the distances would permit them to be combined.” *Id.*

Contrary to this line of argument as noted above, Petitioner does not limit its showing to Bluetooth. Moreover, Patent Owner notes that it “is obvious to anyone who has walked away from their phone while listening to music over Bluetooth headphones” that distances may or may not permit transmission. PO Resp. 47. Based on this logic, if an artisan of ordinary skill sought to use Bluetooth, it equally would have been obvious to locate the wireless camera or module within transmission distance of Vaios’s local computer system. “A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 420.

In the cited paragraph relied upon by Patent Owner, Dr. Hochwald initially testifies that in general,

[m]any wireline and *wireless local-area and wide-area communication protocols were available at the time of the alleged invention*, and the substitution of one network for another would be often determined by situation of the installation – for example, one consideration would be if wires could easily be routed during construction of a building, versus if a wireless network would more cost effective because the system is being retrofitted to an existing structure.

Ex. 2014 ¶ 204 (emphasis added). This testimony shows that an artisan of ordinary skill, who has ordinary creativity and is not an automaton, readily would have chosen one of many feasible wireless protocols for the application for easy installation. Vaios, like claim 1, does not require the video camera to be located so far from local computer system 12 as to preclude wireless communications. *See* Ex. 1003, 2:12–17 (“The local

computer system is electronically connected via a camera adapter to the video camera so that video, sound, and motion sensor data can be transmitted from the camera to the local computer system, and instructions or other data can be transmitted from the local computer system to the camera.”), Fig. 3 (illustrating a room view with video surveillance for a window).

As Dr. Hochwald also testifies, “Menard also discloses other possible wireless communication options, including IEEE 802.15, cellular, etc., that were also options for facilitating video data communication between Vaios’ camera and local computer system.” Ex. 1051 ¶ 31 (citing Ex. 1004, 15:5–16:13).¹⁴ Dr. Hochwald explains further:

“[A]s I explained in my original declaration, a [person of ordinary skill in the art] at the time would have found it simple to implement what were well-known wireless communication protocols given their ubiquitous use. *See* EX1002, ¶¶117–119. I should not need to provide a detailed engineering drawing describing the circuitry and components of the hardware/software required to implement each wireless communication protocol given that this was well within the capabilities of a [person of ordinary skill in the art] at the time. In addition, a [person of ordinary skill in the art] would have been quite capable of doing a trade-off analysis of size, cost, power, and advantages of each wireless technology.

Id.

After summarizing various wireless video cameras available at the time of the invention, Dr. Hochwald credibly testifies that “the technology

¹⁴ Exhibit 1051 is Dr. Hochwald’s Reply Declaration from the related ’811 IPR filed here, but Patent Owner does not object to it as impermissible hearsay or otherwise assert it is unreliable here. *See supra* note 10 (noting similar situation with Dr. Akl’s Declaration from the related ’812 IPR filed by Patent Owner here).

was so well-developed that it could be found in off-the-shelf products being offered in the home security space, most of which just needed to be purchased, installed, and turned on to operate in the manner called for in various claim limitations of the '184 patent.” Ex. 1051 ¶ 23. As Dr. Hochwald also testifies based on cited evidence in the record, “in addition to Menard’s express teachings,” the cited evidence “show[s] that Bluetooth as well as numerous other wireless communication protocols were in fact suitable for sending video, and a [person of ordinary skill in the art] in this field would have recognized that fact based on the various teachings . . . highlighted” in his previous testimony. *Id.* ¶ 32; *see also id.* ¶¶ 11–23 (describing various digital wireless video cameras on the market and in the literature prior to the date of the invention).

Patent Owner contends that “[t]he Board must weigh the benefits and drawbacks of Petitioner’s proposed modification against each other, to determine whether there would be a motivation to combine. benefits, both lost and gained.” PO Resp. 48 (citing *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019)).

As indicated above, Dr. Hochwald addresses these trade-off issues in several paragraphs, testifying for example, that

a [person of ordinary skill in the art] would . . . find it *simple* to modify the teachings of Vaio to incorporate the teachings of Menard, without requiring significant or unpredictable changes in the interfaces, complexity, cost or methodology and would have had a high expectation that the combination would have succeeded.

Ex. 1034 ¶ 112 (emphasis added); *see also id.* ¶¶ 107 (testifying wired and wireless communications were well-known alternatives), 115 (describing benefits of not using wires including convenience and reduced installation

costs); Ex. 1051 ¶ 31 (quoted above, discussing “trade-off analysis of size, cost, power, and advantages of each wireless technology” as well withing ordinary skill); Ex. 2014 ¶ 204 (quoted above, testifying as to benefits including costs to implement well-known wireless protocols). Therefore, Dr. Hochwald’s testimony credibly addresses the simple nature of applying well-known wireless technology to video cameras in light of known changes, complexities, costs, and methodologies. *See* Ex. 1034 ¶¶ 107, 112, 115; Ex. 1051 ¶ 31; Ex. 2014 ¶ 204. Therefore, Patent Owner’s arguments do not undermine Petitioner’s proposed reasons to combine Vaios and Menard.

Based on the foregoing discussion, Petitioner persuasively shows that using a wireless video camera provides a simple, effective, and predictable manner for using a video camera to monitor an entrance for security reasons. Accordingly, on this limited record, Petitioner persuasively shows that the combination of Vaios and Menard satisfies limitation 1(a).

(3) Limitation 1(b)

Limitation 1(b) recites “a sensor for activating the camera.” Petitioner argues that “Vaios discloses a motion sensor for activating video camera 10.” Pet. 14 (citing Ex. 1034 ¶¶ 117–120; Ex. 1003, code (57), 3:24–30, 8:36–53). Petitioner notes that Vaios states that “[w]hen the motion sensor detects an obstruction the camera starts recording.” *Id.* (quoting Ex. 1003, code (57)). Petitioner additionally notes that Vaios states that “[t]he ‘local computer system . . . checks if the motion sensor alarm has been triggered, and once triggered the operation loop jumps to active mode The active mode commences . . . by awakening the local computer system and turning on the video camera.’” *Id.* (second through fourth alterations in original) (quoting Ex. 1003, 8:42–49; citing Ex. 1034 ¶¶ 117–120).

The cited passages and testimony support Petitioner. Accordingly, Petitioner’s showing for limitation 1(b) is persuasive. Patent Owner does not address Petitioner’s showing for limitation 1(b).

(4) Limitation 1(c)

Limitation 1(c) recites “a plurality of peripheral devices, each peripheral device associated with a respective user.” Petitioner contends that Vaios discloses “end user locations” with peripheral devices associated with respective users. Pet. 14–16 (citing Ex. 1034 ¶¶ 121–127). Referring to Vaios’s Figure 1 (above), Petitioner contends that Vaios’s “‘end user locations 8’ include ‘remote computer system 16’ and ‘communicative devices 20’ such as ‘a telephone, beeper, fax, e-mail, or wireless device.’” *Id.* at 14–15 (quoting Ex 1003, code (57), 4:5–20). Petitioner also relies on Vaios’s statement that “[u]sing an end user location, having a remote computer system . . . and . . . communications devices, the remote individual can . . . control the video camera remotely, or view video images.” *Id.* at 15 (alterations in original) (quoting Ex. 1003, code (57)). Petitioner also asserts that Vaios’s system provides security, limiting access to individual users: “this system . . . can additionally be secured . . . to allow access only to certain individuals.” *Id.* (alterations in original) (quoting Ex. 1003, 9:61–64).

Petitioner alternatively argues that it would have been obvious in view of Saylor to associate user devices with a respective user. Pet. 15–16. According to Petitioner, “[u]sers in Saylor ‘register security devices . . . with [a] central security network.’” *Id.* at 15 (last two alterations in original) (quoting Ex. 1008, 3:49–50). Petitioner explains that Saylor’s system “automatically inform[s] an owner and other authorized entities . . . when alarm situations . . . occur.” *Id.* (alterations in original) (quoting Ex. 1008,

1:7–12). In addition, “[t]he system accesses ‘the user’s personal preferences . . . and/or other information . . . to execute notifications in the manner specified by the user.” *Id.* at 15–16 (last two alterations in original) (quoting Ex. 1008, 3:51–58). Saylor’s system relies on databases, including a user database 140, which “stores a “personal address book where contact information (e.g., phone, pager, mobile device, etc.) associated with various individuals may be stored and accessed based on various identified alarm situations.” *Id.* at 16 (quoting Ex. 1008, 7:3–7).

Based on these teachings, Petitioner asserts that it would have been obvious in view of Saylor’s teachings to provide notifications to specific users of Vaios’s system via their associated devices so that they will be aware of alarm conditions and also receive video, where the combined system is useful for providing timely notifications to selected users per their preferences in a predetermined order. *See* Pet. 16–17 (citing Ex. 1034 ¶¶ 121–136).

As Petitioner notes, Vaios states that “[u]sing an end user location, having a remote computer system . . . and . . . communications devices, the remote individual can . . . control the video camera remotely, or view video images.” Pet. 15 (alterations in original) (quoting Ex. 1003, code (57)). Vaios’s communication devices 20 and remote computer system 16 are part and parcel of Vaios’s end user locations 8. *See* Ex. 1003, Fig. 2.

Petitioner further explains that the combination involves only the incorporation of well-known features and technologies in a known manner “(e.g., associating respective individuals with specific devices via a database/address book as taught in Saylor) into Vaios’ system (e.g., local computer system 12) to obtain predictable results.” *See* Pet. 16–17.

Citing the Petitioner’s reasons for combining Vaios and Saylor, Patent Owner contends that “the Petition fails to provide any motivation to combine any of the references beyond the following generic reasons:”

. . . .

Petition (Vaios and Saylor): Further, the proposed combination offered advantages that would have motivated a POSITA to make the combination, such as providing notifications and data to specific, desired individuals per user preferences and assigning a notification priority that conserves system resources and speeds alarm response by contacting specific, designated users via associated devices in a predetermined order.

PO Resp. 41–42 (quoting Pet. 17). Patent Owner also argues that Petitioner’s rationale is conclusory. *See id.* at 44.

On this record, notwithstanding Patent Owner’s arguments, Petitioner’s rationale for combining Saylor with Vaios is persuasive. Contrary to Patent Owner’s arguments, the record as cited by Petitioner supports Petitioner’s reasons with factual underpinnings. As summarized above, Petitioner explains that providing notifications to specific individuals allows for contact of users in a specific predetermined order in order to speed the alarm response based on specific teachings in Vaios and Saylor. *See* Pet. 14–17 (citing Ex. 1003, code (57), 2:26–33, 4:5–20, 8:55–9:9, 9:61–64; Ex. 1008, 1:7–12, 3:49–58, 7:3–7, 7:45–51; Ex. 1034 ¶¶ 121–135). In other words, as Petitioner argues, “the Petition discusses how a [person of ordinary skill in the art] would further be motivated by the advantages of conserving system resources and speeding alarm responses afforded by the ability to assign notification priorities as a result of the associations maintained in Saylor.” Reply 17 (citing Pet. 17). In addition, the Petition persuasively relies on the advantages of conserving system resources and speeding alarm responses afforded by the ability to assign notification

priorities as a result of the associations maintained in Saylor. *See* Pet. 17; Reply 17. As Petitioner also argues, “Dr. Hochwald further explained how by utilizing Saylor’s manner of maintaining device/user associations, a [person of ordinary skill in the art] would have appreciated the resulting ability to provide response notifications to multiple desired individuals in a common household and provide different levels of alerts involving different users.” Reply 17 (citing Ex. 1034 ¶¶ 132, 135).

Patent Owner also argues that “Saylor acknowledges that a [person of ordinary skill in the art] would not readily combine Saylor with another reference.” PO Resp. 12. Patent Owner bases this argument on the observation that Saylor states that “home security systems offer limited services” and the “industry itself has remained *stagnant and inflexible*.” Ex. 1008, 1:54–57 (emphasis omitted). Patent Owner also bases the argument on its contention that Saylor discusses high false alarm rates and “conspicuously does not provide an iteration where a device associated with a door communicates video data as such uncontrolled events at a door could give rise to even greater false alarms.” PO Resp. 12 (citing Ex. 1008, 1:27–33).

Saylor does not support Patent Owner’s argument that “Saylor acknowledges that a [person of ordinary skill in the art] would not readily combine Saylor with another reference.” *See* PO Resp. 12. Rather, Saylor states that “[t]he present invention relates generally to the field of security systems” and “in particular to . . . a wireless communication system to automatically inform an owner and other authorized entities in a manner predetermined by the user when alarm situations . . . occur,” suggesting that its teachings apply to the field of security systems, like that of Vaio, Menard, and Naidoo-068. *See* Ex. 1008, 1:7–12. As found above and below

in the discussion of related limitation 1(e)(i), Petitioner provides persuasive reasons to combine the teachings of Vaios, Menard, and Naidoo-068, with Saylor.

Accordingly, Petitioner's showing for limitation 1(c) is persuasive.

(5) Limitation 1(d)

Limitation 1(d) recites “a computer configured for communication with the wireless device and configured for communication with each of the peripheral devices.” Petitioner reads limitation 1(d) on Vaios's local computer system 12, which communicates with video camera 10, peripheral devices 16 and 20, and other devices at end user locations 8. *See* Pet. 18 (reproducing Ex. 1003, Fig. 1). Petitioner quotes Vaios as teaching that “[l]ocal computer system 12 is coupled . . . to video camera 10 so that video, sound, and motion sensor data can be transmitted from the camera to the local computer system, and instructions or other data can be transmitted from the local computer system to the video camera.” *Id.* (second alteration in original) (quoting Ex. 1003, 3:27–32).

The cited passages and testimony support Petitioner. Accordingly, Petitioner's showing for limitation 1(d) is persuasive. Patent Owner does not address Petitioner's showing with respect to the preamble. *See generally* PO Resp.

(6) Limitations 1(e)(i)–(iii)

Limitations 1(e)(i)–(iii) follow:

- (e) wherein the computer executes software, in accordance with which,
 - (i) the association of each of the peripheral devices with a respective user is maintained,
 - (ii) video data from the wireless device is received by the computer upon actuation of the sensor, and

(iii) a graphical user interface is provided through which video data from the wireless device is accessible by each respective user using one of the peripheral devices.

Regarding “wherein the computer executes software” of limitation 1(e), Petitioner contends that Vaios’s local computer system 12 executes “operating system software 111 to provide basic resource allocation and computational mechanisms.” Pet. 19 (quoting Ex. 1003, 3:37–41). Petitioner also relies on Vaios’s local computer system 12 as “compris[ing] application software 136 to handle customized tasks unique to each embodiment of the multi-access system, and browser software 138 for display control and management.” *Id.* (quoting Ex. 1003, 3:65–4:4). The cited passages and testimony support Petitioner. Accordingly, Petitioner’s showing for this portion of limitation 1(e) is persuasive. Patent Owner does not address Petitioner’s showing with respect to this phrase. *See generally* PO Resp.

Regarding limitation 1(e)(i), Petitioner contends that after Vaios’s local computer system 12 receives video from video camera 12, it “notif[ies] a remote individual at a predetermined address.” Pet. 20 (alteration and underlining in original) (quoting Ex. 1003, 8:53–62, citing Fig. 4, step 310). Petitioner explains that “[t]his ‘predetermined address’ of step 310 refers to an address of a communicative device of end user location 8 that is known and maintained by local computer system 12 in order to provide notifications and data to a specific remote individual.” *Id.* at 21 (citing Ex. 1034 ¶¶ 151–152). Petitioner states that step 312 informs this understanding of step 310 at “which the ‘remote individual receives [the] notification’ via e-mail, telephone, beeper, etc.; which are each exemplary communicative devices of end user locations 8.” *Id.* (alteration in original) (quoting Ex. 1003, Fig. 4,

step 312; citing Ex. 1003, 4:5–20, 8:59–9:5, Fig. 4). Petitioner also relies on Vaios’s claim 17, which recites that “‘notifying a remote individual’ is performed ‘via a communications device . . . so as to make available to said remote individual a view of said obstruction.’” *Id.* (alterations in original) (quoting Ex. 1003, claim 17).

Petitioner alternatively asserts that it would have been obvious based on Saylor to maintain an association of each peripheral device with a respective user. Pet. 21–22 (citing Ex. 1034 ¶¶ 155–162). Similar to its showing with respect to limitation 1(c), Petitioner maintains that “Saylor teaches a database that stores an address book which maintains associations between peripheral devices and respective individuals so that alarm notifications can be provided to desired individuals via respective associated devices.” *Id.* at 22 (citing Pet. 15–16, discussed above).

The cited passages and testimony support Petitioner. Based on the foregoing discussion, Petitioner shows persuasively that Vaios discloses limitation 1(e)(i), and alternatively, that the combined teachings of Vaios and Saylor would have rendered the limitation obvious. Accordingly, Petitioner’s showing for limitation 1(e)(i) is persuasive. Other than its unavailing arguments about combining Vaios and Saylor addressed above, Patent Owner does not address Petitioner’s showing with respect to this limitation. *See generally* PO Resp.

Addressing limitation 1(e)(ii), “wherein the computer executes software, in accordance with which, . . . (ii) video data from the wireless device is received by the computer upon actuation of the sensor,” as indicated above, Petitioner asserts that Vaios’s “local computer system 12 executes software to enable its functionalities.” Pet. 22. With respect to the

receiving video data from the wireless video camera, the Petition quotes Vaios as disclosing that “[w]hile in sleep mode the local computer system . . . checks if the motion sensor alarm has been triggered, and once triggered . . . jumps to active mode . . . by awakening . . . and turning on the video camera. Thereafter, . . . the video camera . . . transmits the video data to the local computer system” *Id.* (second through eighth alterations in original) (quoting Ex. 1003, 8:42–52). Also, Petitioner quotes Vaios’s abstract as stating that “[w]hen the motion sensor detects an obstruction the camera starts recording.” *Id.* (quoting Ex. 1003, code (57)).

The cited passages and testimony support Petitioner. Accordingly, Petitioner’s showing for limitation 1(e)(ii) is persuasive. Patent Owner does not address Petitioner’s showing with respect to this limitation. *See generally* PO Resp.

Addressing limitation 1(e)(iii), “wherein the computer executes software, in accordance with which, . . . (iii) a graphical user interface is provided through which video data from the wireless device is accessible by each respective user using one of the peripheral devices,” Petitioner contends that Vaios’s browser software at local computer system 12 provides video via a graphical user interface. Pet. 24–26. Petitioner quotes Vaios as teaching that “[e]mploying the browser software . . . , the remote individual can operate the camera and retrieve . . . video.” *Id.* at 23 (second and third alterations in original) (quoting Ex. 1003, 8:65–9:5) (second and third alterations in original). Petitioner also asserts that “[u]sing an end user location, having a remote computer system, a network interface, and . . . communications devices, the remote individual can logon to the local computer system . . . and . . . view video images.” *Id.* (alterations in original) (quoting Ex. 1003, code (57)). In addition, the “local computer

system . . . captures . . . video . . . and transmits it to the remote user who subsequently plays the downloaded image.” *Id.* (alterations in original) (quoting Ex. 1003, 2:35–38). Petitioner also contends that the “browser and application software” are components of “interface layer 102” of local computer system 12, which provides the graphical user interface to peripheral devices. *Id.* at 24 (citing Ex. 1034 ¶¶ 173–179; Ex. 1003, 7:39–43, 6:35–40, Figs. 2, 3). Petitioner cites similar teachings as showing that the browser software provides the graphical interface (illustrated in Vaios’s Figure 3) to end user devices. *Id.* at 24–25 (citing Ex. 1003, 7:40–59; Ex. 1034 ¶¶ 173–179). Petitioner quotes Vaios’s claim 10 to support its showing: “said controller module . . . comprises . . . browser software for interfacing said controller module with an end-user at said end-user location, said browser software further providing, said user interface.” *Id.* at 26 (alterations in original).

The cited passages and testimony support Petitioner. As summarized above, Petitioner persuasively shows that software executing on Vaios’s local computer system 12 causes the system to provide the graphical interface to peripheral devices comprising communicative devices 20 and/or remote computer system 16. *See* Pet. 22–24.

Accordingly, Petitioner’s showing for limitation 1(e)(iii) is persuasive. Patent Owner does not address Petitioner’s showing with respect to this limitation. *See generally* PO Resp.

In summary, Petitioner persuasively shows that Vaios discloses, or Vaios with Saylor, renders obvious, limitations 1(e)(i)–(iii).

(7) Summary

Based on the record and foregoing discussion, Petitioner establishes persuasive reasons supported by factual underpinnings to combine the prior

art teachings with a reasonable expectation of success to show the obviousness of the subject matter of claim 1. Accordingly, with respect to the subject matter of dependent claims 14 and 15 that necessarily include all the limitations of independent claim 1, the record supports Petitioner's showing that Vaios, or alternatively, the combined teachings of Vaios, Menard, and/or Saylor would have rendered the subject matter of claim 1 obvious. Our determination here is consistent with the final written decision in the '811 IPR FWD. *See* '811 IPR FWD 44 (determining "that Petitioner shows by a preponderance of evidence that . . . claim 1 [of the '184 patent] would have been obvious over the combined teachings of Vaios with Menard, and/or Saylor").¹⁵

2. Vaios, Menard, and Saylor (Ground 1, Claim 15)

Claim 15 depends from independent claim 1 and recites "wherein the wireless device is portable, has a locking mechanism, and an electrical receptacle for quickly attaching to a source of electricity, and wherein the wireless device further includes a portable energy source." Petitioner asserts that claim 15 would have been obvious based on Vaios and Menard, and optionally Saylor (as outlined above in connection with limitations from claim 1). Pet. 26–33.

Petitioner reads the added limitations of claim 15 onto Menard's exterior module 200D. Petitioner contends that Menard's exterior module is

¹⁵ The '811 IPR FWD, however, does not preclude Patent Owner's arguments here under collateral estoppel due to Patent Owner's pending appeal before the Court of Appeals for the Federal Circuit. Nevertheless, we find no reason on this record to deviate from the Board's decision in the '811 IPR FWD with respect to all of the limitations of claim 1, which claims 13 and 14 incorporate by virtue of their dependency from claim 1.

portable, because a battery powers it, it includes a wireless transceiver, and it “can be easily moved.” Pet. 27 (citing Ex. 1034 ¶¶ 186–187; Ex. 1004, 13:27–29, 20:5–12, 21:15, 22:25–28).

“Alternatively,” Petitioner asserts that “given the wireless communication and battery power features of exterior module 200D, it would have been obvious to a [person of ordinary skill in the art] that the exterior module 200D is portable and thus may be relocated as desired, for example to other entry ways a user may desire to monitor.” Pet. 28 (citing Ex. 1034 ¶ 187).

Petitioner also asserts that “Menard’s exterior module 200D includes a ‘locking mechanism’ at least in the form of its ability to operate ‘deadbolt lock 275.’” Pet. 28 (citing Ex. 1034 ¶¶ 188–190; quoting Ex. 1004, 22:4–10). To support its showing, Petitioner quotes Menard as follows:

Exterior module 200D includes alpha-numeric keypad 305 for receiving coded information. For example, . . . authorized callers can enter a predetermined code sequence to cause deadbolt lock 275 (Figure 8) to engage or disengage. Also, a user can enter a code sequence in PDU 400, for wireless transmission to exterior module 200D, and operate deadbolt lock 275.

Pet. 29 (alterations in original) (quoting Ex. 1004, 22:4–10).

Petitioner also contends that Menard’s exterior module 200D (Ex. 1004, Fig. 7) includes an “electrical receptacle for quickly attaching to a source of electricity,” because it is “supplied by a battery” or derives energy “from the metered electric service.” Pet. 29 (quoting Ex. 1004, 23:6–8; citing *id.* at 22:25–28). Petitioner explains that the portable battery implies an electrical receptacle because the latter includes contacts for electrically coupling the battery. *Id.* (citing Ex. 1034 ¶¶ 191–192).

Petitioner also asserts that it would have been obvious to include an electrical receptacle as claimed because

given the widespread use of batteries for cameras/monitoring devices as well as innumerable electronic devices at the time of the alleged invention, a [person of ordinary skill in the art] would have found it obvious to use any of a plethora of electrical receptacles for connecting to and/or recharging such batteries, and would have been motivated to include an electrical receptacle in the exterior module to facilitate quick electrical attachment/connection to such batteries, and/or to power the device when another source of power is readily available such that the battery power is preserved for only when needed.

Pet. 30 (citing Ex. 1034 ¶ 193).

Petitioner reads the “portable energy source” on Menard’s “battery,” which as described above, powers exterior module 200D. Pet. 31 (quoting Ex. 1004, 22:24–28).

Petitioner contends it would have been obvious “to incorporate the portability features of Menard’s wireless exterior module 200D into the resulting combination of exterior module 200D and Vaios’ cameras.” Pet. 31 (citing Ex. 1034 ¶¶ 195–198). According to Petitioner, “[t]he widespread use of battery power and wireless communications at the time, as exemplified, for example, by common in-home devices such as remote controls, cameras, and the like, would have made the incorporation of such features in Vaios’ system and cameras a simple, predictable task.” *Id.* at 32 (citing Ex. 1034 ¶¶ 195–198). Petitioner contends that a person of ordinary skill in the art

would have recognized the benefits associated with quickly and easily relocating a portable monitoring device and easily connecting the device both to power in a simple, convenient manner (e.g., using “hand-turnable knobs” and/or straps and battery power) as well as communicatively to other system

devices (using wireless communications), and just as easily unsecuring and disconnecting the device for relocation.

Id. (citing 1034 ¶ 196).

Petitioner also contends that “[i]t was . . . obvious to include a locking mechanism or electronically actuated lock in Vaios to allow for a user to remotely unlock and grant access to a secure building via a monitored entrance as taught in Menard.” Pet. 33 (citing Ex. 1034 ¶¶ 197–198).

Patent Owner lists some of the Petition’s stated motivations for combining Menard with Vaios (PO Resp. 41–42) and contends “that the Petition fails to provide any motivation . . . beyond [the listed] . . . generic reasons” (*id.* at 41) and further contends that the listed “motivations . . . are conclusory” (*id.* at 44). Patent Owner also argues that “the Petition does not explain why a [person of ordinary skill in the art] would care about any of the articulated motivations.” *Id.* at 44. Patent Owner also relies on its unavailing arguments addressed above in connection with combining Menard and Vaios to reach the “wireless device” limitation of claim 1. *Id.* at 34.

Patent Owner’s allegation of “generic reasons” does not allege that Petitioner’s rationale is “too generic.” *See, e.g., Volvo Penta of the Americas, LLC v. Brunswick Corp.*, 81 F.4th 1202, 1209 (Fed. Cir. 2023) (citing *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 797 (Fed. Cir. 2021)) (finding that “the Board’s motivation” was not “too generic”). In *Volvo*, the court found that the Board’s rationale sufficient to support obviousness when it relied on “improved speed *and* improved efficiency together,” finding that “the prospect of increased speed and efficiency has the support of an express statement in one of the asserted prior art references,” and

reasoning that “a broadly applicable motivation may be sufficient as long as it is supported by more than conclusory expert testimony.” *Id.*

Similar to the situation in *Volvo*, Petitioner’s rationale is not too generic or conclusory because Petitioner applies several beneficial features together to the limitations of claim 15 with factual underpinnings to support the showing. As summarized above, Petitioner shows that an artisan of ordinary skill would have recognized the desirability of portability including power and locking mechanism features in the wireless device of Vaios as modified by Menard, because these features would have provided a user with the capability to quickly and easily relocate the wireless device to desired areas for security purposes, including for door activation purposes, while allowing simple, fast, and predictable monitoring thereof without requiring wired power and separate attachment mechanisms.

Finally, Patent Owner does not explain why Petitioner must point out explicitly “why a [person of ordinary skill in the art] would care about any of the articulated motivations.” *See* PO Resp. 44. The reasons why one of ordinary skill in the art would care are implicit in the articulated motivations. Patent Owner appears to admit that Petitioner provides several “articulated motivations.” *See id.* Petitioner’s articulated motivations as outlined above are persuasive. “The motivation-to-combine analysis is a flexible one. ‘[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed,’” but the “analysis ‘need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.’” *Intel Corp. v. PACT XXP*

Schweiz AG, 61 F.4th 1373, 1379–80 (Fed. Cir. 2023) (quoting *KSR*, 550 U.S. at 418, 420 (emphasis added, alteration in original)) (“*PACT XXP*”).

Based on the record and foregoing discussion, Petitioner establishes persuasive reasons supported by factual underpinnings to combine the prior art teachings with a reasonable expectation of success to show the obviousness of claim 15.

Accordingly, we determine that Petitioner shows by a preponderance of evidence that Vaios and Menard, and optionally Saylor, would have rendered claim 15 obvious.

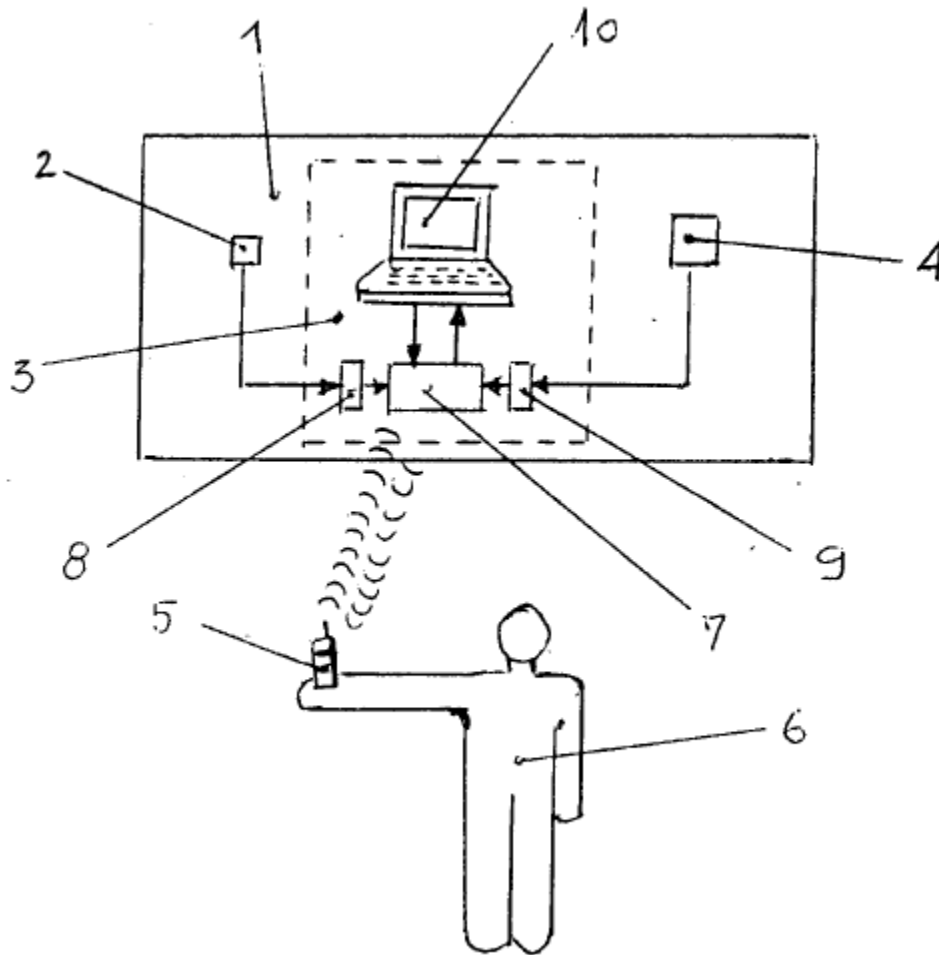
3. Vaios, Menard, Saylor, and Sabie (Ground 2, Claim 14)

Claim 14 depends from independent claim 1 and recites “wherein the wireless device and at least one of the peripheral devices are configured for communications via text messaging.” Petitioner asserts that claim 14 would have been obvious over the combined teachings of Vaios and Sabie, “and optionally Menard and/or Saylor.” Pet. 34.

a) Sabie

Sabie relates to a device for remote control and remote monitoring and control of sensors, including motion sensors and video cameras, via a short message service (SMS). Ex. 1035, code (54), 6–7. Sabie refers to “both the information process and the remote control & administrative process, as method and device, based on any mobile phone network’ Short Message Service (SMS).” *Id.* at 1.

Sabie's Figure 6 follows:



Sabie's Figure 6 above illustrates "area of interest 1," "sensor or measuring device 2," "controlled device or plant 4," "mobile phone 5," "user 6," and "device for applying the method 3," which includes "two-way pager 7 or any other device capable to transmit receive an SMS message," "reception interface 8," and "control interface 9." Ex. 1035, 3. In Sabie's system, a user transmits SMS message to and from its mobile phone to control devices remotely in the area of interest. *Id.* at 1–2.

b) Dependent Claim 14

Petitioner contends that "Sabie teaches a wireless device (e.g., 'sensors/measuring devices 2' and/or 'device for applying the method 3')

and a peripheral device (e.g., ‘mobile phone 5’) configured for communications via text messaging.” Pet. 34 (citing quoting Ex. 1035, 1, 3, 5; citing *id.* at code (57), Fig. 1; Ex. 1034 ¶¶ 202–207).¹⁶ Petitioner asserts “[c]ommunication via short message service (SMS) is equivalent to communications via text messaging.” *Id.* (citing Ex. 1034 ¶ 202; Ex. 1036, 1:25–31).

Petitioner asserts that Sabie’s system uses SMS messages to communicate data regarding “certain parameters from a . . . long distance area of interest” through “sensors/measuring devices.” Pet. 35 (alteration in original) (quoting Ex. 1035, code (57)). Petitioner also asserts that Sabie teaches “the values of those parameters are measured . . . using sensors or measuring devices 2,” which in turn transmit “the measured data to the device from applying the method 3.” *Id.* (alterations in original) (quoting Ex. 1035, 3). Petitioner contends the device for applying the method 3 of Sabie includes a “reception interface 8, a two-way pager 7 (or any other device capable to transmit receive an SMS message) and a control interface 9.” *Id.* (quoting Ex. 1035, 3).

Petitioner also contends that Sabie teaches that

reception interface 8 . . . receiv[es] data from the sensors or measuring devices 2 and also . . . transform[s] all those data in[to] digital signals which are locally sent to a two-way pager 7 (or any other device capable to transmit receive an SMS message). The pager . . . receiv[es] and transform[s] data . . . as SMS messages.

Pet. 35 (alterations in original) (quoting Ex. 1035, 3–4).

Petitioner explains that pager 7 of Sabie then transmits the SMS

¹⁶ Petitioner cites to line numbers in Sabie. Sabie’s pages do not include line numbers, so this Final Written Decision does not cite to line numbers.

messages through the mobile phone network to the user's 6 mobile phone 5. The mobile phone 5 . . . notic[es] and inform[s] the user 6. When the messages are received by the user, he has the possibility to send control messages, as SMS messages, through the mobile phone network, to the device for applying the method 3.

Pet. 35 (alterations in original) (quoting Ex. 1035, 4).

Petitioner further contends that Sabie's sensors/measuring devices 2 may include wireless monitoring devices such as video cameras, temperatures sensors, motion sensors, touch sensors, etc. Pet. 36 (citing Ex. 1034 ¶ 205). To support this contention, Petitioner quotes Sabie as follows:

The area of interest 1 can be any location where from the user wants to receive data/information. That supposes that the area of interest can be any location where technological process takes place, any machine, any room, any house, any office, any building, any plant, any car The sensors/measuring devices 2 notice and measure parameters as: the electric current[], intensity, the temperature, the pressure, the humidity, fluid flows, the luminosity, the smoke quantity, any motion, any touch, any data transfer . . . , generally speaking any parameter which can be measured. Data transmission from the sensors/ measuring devices 2 to the reception interface can be realized by wire as well as wireless (for instance by using infra-red technology, radio waves a.s.o.). The sensor can be a video camera. In this case, the transmitted data are even images from the area of interest I, which can be received on the user's mobile phone display 5

See id. at 36–37 (alterations in original except for brackets) (quoting Ex. 1035, 4–5) (citing *id.* at 6–7).

Petitioner also asserts that a person of ordinary skill in the art would have recognized that each of the sensors/measuring devices 2 and the device for applying the method 3 of Sabie are wireless devices in view of Sabie's explicit disclose that “[d]ata transmission form the sensors/measuring devices 2 to the

reception interface [of device . . . 3] can be realized by . . . wireless” as well as in view of the wireless communications conducted between pager 7 (of device 3) and mobile phone 6.

Pet. 37 (quoting Ex. 1035, 4; citing Ex. 1034 ¶ 206).

Petitioner also contends that a person of ordinary skill in the art would have further recognized that either or both of the sensors/measuring 2 and the device 3 of Sabie may be considered to communicate with mobile phone 6 (i.e., a “peripheral device” as claimed) via text messaging given that data from the sensors/measuring device 2 are communicated to mobile phone 6 through device 3 using SMS (i.e., text) messaging.

Pet. 37 (quoting Ex. 1035, 4; citing Ex. 1034 ¶ 207).

Petitioner contends that it would have been obvious to a person of ordinary skill in the art to use the text messaging for communication between the wireless devices and peripheral devices of Vaios (either alone or as combined with the teachings of Menard and/or Saylor) in view of the foregoing teachings of Sabie, as “communication via text messaging is just a species of wireless communications, as was well known in the art.” *See* Pet. 37–38 (citing Ex. 1034 ¶¶ 208–204). Petitioner further asserts that “[s]uch a modification of Vaios would have amounted to simply applying a known technique to improve a device in a predictable manner (e.g., using SMS/text messaging to provide a fast, simple, and low-cost manner of communication between Vaios’ cameras and peripheral devices).” *Id.* at 38 (citing Ex. 1034 ¶ 209).

Petitioner alternately asserts that “such a modification of Vaios would have merely amounted to a simple combination of known elements (e.g., the SMS messaging utilized to communicate between Sabie’s devices 2/3 and its mobile phone 6 with Vaios’ system and devices) in a known manner to yield predictable results.” Pet. 38 (citing Ex. 1034 ¶ 210). Petitioner further

contends that “such a modification would have amounted to simple substitution of Sabie’s SMS messaging manner of communicating data between cameras and mobile phones for Vaios’ manner of communicating data from its cameras 10 to its peripheral devices (e.g., remote computer system and communicative devices 20).” *Id.* (citing Ex. 1034 ¶ 211).

Petitioner contends that “[s]uch a combination or substitution would have been easily accomplished with predictable results and . . . a reasonable expectation of success.” Pet. 39 (citing Ex. 1034 ¶ 212). Petitioner asserts that “SMS (or text) messaging was one of a variety of communication methods that were widely implemented for remote communication.” *Id.* (citing Ex. 1034 ¶ 212; Ex. 1036; Ex. 1037).

Petitioner further contends a person of ordinary skill in the art “would have been motivated to incorporate text messaging communications as taught in Sabie into Vaios’ system for a number of reasons,” including for example, that “SMS messaging offered a fast, simple, and low-cost manner of communicating information.” Pet. 38–39 (citing Ex. 1034 ¶ 213; Ex. 1035, 2). Petitioner also asserts that

a [person of ordinary skill in the art] would have recognized that utilizing SMS messaging afforded a communication method in which a user was not required to actively receive/accept the communication in real-time as with a phone call or other real-time two-way communication, thereby increasing the convenience and effectiveness of communicating data, alerts, etc.

Id. at 39 (citing Ex. 1034 ¶¶ 213–214; Ex. 1037, 3:15–25).

Patent Owner lists some of the Petition’s stated motivations for all the grounds and contends “that the Petition fails to provide any motivation . . . beyond [the listed] . . . generic reasons” (PO Resp. 41) and further contends that the listed “motivations . . . are conclusory” (*id.* at 44). *See id.* at 41–44.

Patent Owner also argues that “the Petition does not explain why a [person of ordinary skill in the art] would care about any of the articulated motivations.” *Id.* at 44. Patent Owner also relies on its unavailing arguments addressed above in connection with combining Menard and Vaios. *Id.* at 34.

Patent Owner’s allegation of “generic reasons” does not allege that Petitioner’s rationale is “too generic.” *See, e.g., Volvo*, 81 F.4th at 1209 (citing *Intel Corp.*, 21 F.4th at 797) (finding that “the Board’s motivation” was not “too generic”). In *Volvo*, the court found that the Board’s rationale sufficient to support obviousness when it relied on “improved speed *and* improved efficiency together,” finding that “the prospect of increased speed and efficiency has the support of an express statement in one of the asserted prior art references,” and reasoning that “a broadly applicable motivation may be sufficient as long as it is supported by more than conclusory expert testimony.” *Id.*

In any event, Patent Owner’s arguments fail to undermine Petitioner’s showing. Patent Owner does not dispute that SMS messaging “offer[s] fast, simple, lo[w]-cost communication” or would have been convenient because it would have provided two-way communication to allow a user to receive alerts or other messages without requiring the user to handle the alerts in real time. *See* PO Resp. 44; Pet. 40; Reply 18. This motivation is not too generic or conclusory because it relies on a combination of factors applicable to SMS messaging, and Petitioner applies the rationale to the limitations of claim 14 with factual underpinnings to support it. *See Volvo*, 81 F.4th at 1209 (discussed *supra* § II.E.2).

Sabie supports Petitioner’s showing. *See* Pet. 40; Reply 18 (noting the Petition relies on “explicit discussion in Sabie” with respect to “well-

known speed, simplicity, and low-cost advantages of SMS/text messaging” (citing Pet. 40; Ex. 1035, 2; Ex. 1037, 3:15–20)). As Petitioner argues, Sabie states that the features “are simple and costs are low,” and the messages “are extremely fast in action.” *See* Ex. 1035, 2; Reply 18. Therefore, as in *Volvo*, the prospect of low costs, speed, and simple use “has the support of an express statement in one of the asserted prior art references.” *See Volvo*, 81 F.4th at 1209. As summarized above, Petitioner provides other reasons supported by factual underpinnings, for example showing that text messaging is simply one type of well-known wireless communication techniques and involves a simple substitution or suitable option for communication with the Vaio/Menard wireless module, wherein a user did not need to actively receive/accept a real-time communication as with a phone call or other real-time two-way communication, thereby increasing the convenience and effectiveness of communicating data and alerts. *See PACT XPP*, 61 F.4th at 1380 (“If there’s a known technique to address a known problem using ‘prior art elements according to their established functions,’ then there is a motivation to combine . . . [and] ‘[i]t’s not necessary to show that a combination is the best option, only that it be a suitable option.’”). Patent Owner does not specifically address the persuasive reasons set forth by Petitioner as summarized above.

Based on the record and foregoing discussion, Petitioner establishes persuasive reasons supported by factual underpinnings to combine the prior art teachings with a reasonable expectation of success to show the obviousness of claim 14.

Accordingly, we determine that Petitioner shows by a preponderance of evidence that claim 14 would have been obvious over the combined

teachings of Vaios and Sabie, and optionally with the additional teachings of Menard and/or Saylor.

4. Vaios, Menard, Saylor, and Jae (Ground 3, Claim 14)

Claim 14 depends from independent claim 1 and recites “wherein the wireless device and at least one of the peripheral devices are configured for communications via text messaging.” Petitioner asserts that claim 14 would have been obvious over Vaios and “Jae, and optionally Menard and/or Saylor.” Pet. 40.

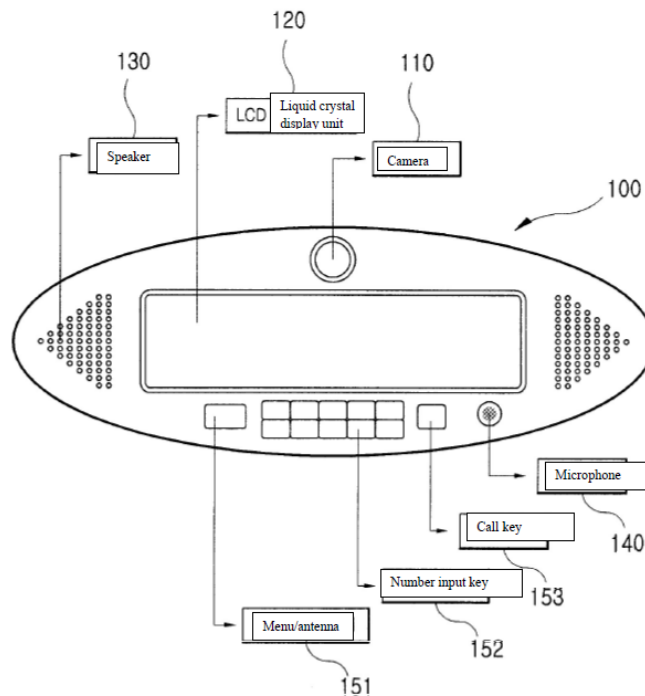
a) Jae

Jae relates to a “remote access security system, composed of an outdoor terminal for visitors, installed at the entrance door . . . , equipped with a camera, a liquid crystal screen, a speaker, a microphone, and various operation buttons to enable the visitor to call.” Ex. 1011, codes (54), (57). Jae’s system displays and communicates via wireless text messages. *Id.* at 4–5.

b) Dependent Claim 14

Petitioner asserts that Jae teaches a monitoring device (e.g., “outdoor terminal”) and a peripheral device (e.g., “mobile phone”) configured for communications via text messaging. Pet. 41 (citing Ex. 1034 ¶¶ 217–228; Ex. 1011, code (57), 4, Fig. 2).

To support its showing, Petitioner relies on Jae's Figure 2 as reproduced below:



Relying on Jae's Figure 2 above, Petitioner contends Jae's "outdoor terminal 100 [includes] a liquid crystal display unit 120 for displaying . . . a pre-stored image or text message." *See* Pet. 41–42 (second alteration in original) (quoting Ex. 1011, 4, Fig. 3). Petitioner notes that Jae also teaches that "liquid crystal display unit 120 . . . is configured to . . . display a text or video image sent out by the user." *Id.* at 42 (alterations in original) (quoting Ex. 1011, 4).

Petitioner quotes Jae as follows:

The outdoor terminal 100 according to the present invention is able to display a message left by the user. The message input can be input by the user through the mobile phone or the indoor terminal 200; in the case of using the indoor terminal 200, a text message can be input in the same way as a text message input method in a mobile phone using a function key and a number input key.

See Pet. 42–43 (quoting Ex. 1011, 5).

Based on Jae’s teachings, Petitioner contends that a person of ordinary skill in the art “would recognize Jae as describing a system in which the user can input a text message via the mobile phone (or alternatively the indoor terminal 200) for display on LCD unit 120 of outdoor terminal 100. Pet. 43 (citing Ex. 1034 ¶ 219).

Petitioner also asserts that Jae’s outdoor terminal 100 sends text messages to a user’s mobile phone. Pet. 43 (citing Ex. 1034 ¶ 220). To support its showing, Petitioner quotes Jae as follows:

When a visitor visits, enters a designated password using the number input key of the outdoor terminal 100 and presses the call button, the indoor terminal 200 automatically transmits a message (text-password) to the user’s mobile phone; after the user reads the received message and presses the button designated for approval through the mobile phone owned by the user, a signal is automatically transmitted to open the door. In this case, when the visitor presses the menu/guide key, in the case there is a password that informs the user about the message and user call for access permission and allows the visitor to know whether the visitor is an authorized visitor, a password is entered and the user can confirm who the visitor is through the mobile phone and grant access.

See Pet. 43–44 (quoting Ex. 1011, 7).

Based on Jae’s teachings, Petitioner contends that a person of ordinary skill in the art “would have understood Jae to disclose communication of a text message (in the form of a text password that is input, for example, using ‘number input key 151’ as shown in Fig. 2 [above]) from outdoor terminal 100 throughout indoor terminal 200 to the mobile phone. Pet. 44 (citing Ex. 1034 ¶ 220). To further support its showing, Petitioner relies on Jae’s teaching that “indoor terminal 200” includes a “liquid crystal display unit 220 for displaying images and text

messages transmitted from the outdoor terminal 100.” *Id.* at 45 (quoting Ex. 1011, 4).

Petitioner contends that it would have been obvious to a person of ordinary skill in the art to use Jae’s “text messaging for communication between the wireless devices and peripheral devices of Vaios (either alone or as combined with the teachings of Menard and/or Saylor),” because “such a modification of Vaios would have amounted to simply applying a known technique to improve a device in a predictable manner (e.g., using text messaging as taught in Jae to provide a fast, simple, and low-cost manner of communication between Vaios’ cameras and peripheral devices).” Pet. 47 (citing Ex. 1034 ¶¶ 222–227).

Petitioner alternately asserts that “such a modification of Vaios would have merely amounted to a simple combination of known elements (e.g., the text messaging between outdoor terminal 100 and mobile phone of Jae with Vaios’ system and devices) in a known manner to yield predictable results.” Pet. 47 (citing Ex. 1034 ¶ 224). Petitioner further contends that “such a modification would have amounted to simple substitution of Jae’s use of text messaging for communicating information between cameras/monitoring devices and mobile phones for Vaios’ manner of communicating data from its cameras 10 to its peripheral devices (e.g., remote computer system and communicative devices 20).” *Id.* at 47–48 (citing Ex. 1034 ¶ 225).

Petitioner also contends that “[s]uch a combination or substitution would have been easily accomplished with predictable results and having a reasonable expectation of success.” Pet. 48 (citing Ex. 1034 ¶ 226). Petitioner asserts that “[t]ext messaging was one of a variety of communication methods that were widely implemented for remote communication.” *Id.* (citing Ex. 1034 ¶ 226). Petitioner explains that

using such a known method of communicating data to provide communication between a camera and/or wireless monitoring device and a remote mobile phone or other peripheral device would have provided no significant or concerning impediments that would have prevented successful implementation of such communications, particularly in view of the teachings of Jae.

Id. (citing Ex. 1034 ¶ 226).

Petitioner further contends that a person of ordinary skill in the art “would have been motivated to incorporate text messaging communications as taught in Jae into Vaios’ system for a number of reasons,” including that “text messages offered a fast, simple, and low-cost manner of communicating information.” *See* Pet. 48–49 (citing Ex. 1034 ¶ 227; Ex. 1035, 2). Petitioner also asserts that

a person of ordinary skill in the art would have recognized that utilizing text messaging afforded a communication method in which a user was not required to actively receive/accept the communication in real-time as with a phone call or other real-time two-way communication, thereby increasing the convenience and effectiveness of communicating data, alerts, etc.

Id. at 49 (citing Ex. 1034 ¶ 227; Ex. 1035, 2).

Patent Owner lists some of the Petition’s stated motivations for all the grounds and contends “that the Petition fails to provide any motivation . . . beyond [the listed] . . . generic reasons” (PO Resp. 41) and further contends that the listed “motivations . . . are conclusory” (*id.* at 44). *See id.* at 41–44. Patent Owner also argues that “the Petition does not explain why a [person of ordinary skill in the art] would care about any of the articulated motivations.” *Id.* at 44. Patent Owner also relies on its unavailing arguments addressed above in connection with combining Menard and Vaios to reach the “wireless device” limitation of claim 1. *Id.* at 34.

Patent Owner's arguments fail to undermine Petitioner's showing. Patent Owner does not dispute that SMS messaging "offer[s] fast, simple, lo[w]-cost communication" or would have been convenient because it would have provided two-way communication to allow a user to receive alerts or other messages that do not necessarily need to be handled in real time. *See* PO Resp. 44; Reply 19 (summarizing the Petition's showing). Patent Owner's characterization of the Petition's rationale as "generic" does not allege or explain that it is "too generic" to support obviousness. *See Volvo*, 81 F.4th at 1209) (finding that "the Board's motivation" was not "too generic").

In any event, Petitioner's motivation is not too generic or conclusory because it relies on a combination of beneficial features applicable to text messaging, and Petitioner applies those to the limitations of claim 14 with factual underpinnings to support the showing. Similar to its showing in connection with the ground based on Sabie, Petitioner relies on specific language and cites Sabie for several advantageous features of SMS messaging that apply to Jae's text messaging, including that the features "are simple and costs are low," and the messages "are extremely fast in action." *See* Ex. 1035, 2; Pet. 48–49 (citing Ex. 1035, 2; Ex. 1034 ¶¶ 222–226; Reply 18 (noting the Petition's reliance on Sabie's benefits). Therefore, as in *Volvo*, the prospect of low costs, speed, and simple use "has the support of an express statement in one of the asserted prior art references." *See Volvo*, 81 F.4th at 1209.

Patent Owner also does not dispute Petitioner's showing, as quoted above, that "such a modification of Vaios would have amounted to simply applying a known technique to improve a device in a predictable manner

(e.g., using text messaging as taught in Jae to provide a fast, simple, and low-cost manner of communication between Vaios' cameras and peripheral devices)." Pet. 47 (citing Ex. 1034 ¶¶ 222–227). The record supports this showing and other reasoning provide by Petitioner, as outlined above. For example, Jae shows, as Dr. Hochwald testifies, that text messaging was a simple form of communicating data at the time of the invention to provide two-way communication and confirmation for allowing a person to enter or exit to or from a remote location and control access using a mobile phone. *See* Ex. 1034 ¶ 219 (citing Ex. 1011, code (57), 3, 4) (emphasis added). As summarized above, Jae supports Dr. Hochwald's testimony. *See* Pet. 43–44 (noting Jae uses visitor passwords for security purposes and confirmation by a user (quoting Ex. 1011, 7)). Patent Owner does not allege this rationale by Petitioner and Dr. Hochwald is too generic or conclusory.

Based on the record and foregoing discussion, Petitioner establishes persuasive reasons supported by factual underpinnings to combine the prior art teachings with a reasonable expectation of success to show the obviousness of claim 14.

Accordingly, based on the foregoing discussion, we determine that Petitioner shows by a preponderance of evidence that claim 14 would have been obvious over the combined teachings of Vaios and Jae, and optionally with the additional teachings of Menard and/or Saylor.

5. Vaios, Menard, Saylor, and Schnell (Ground 4, Claim 15)

Claim 15 depends from claim 1 and recites "wherein the wireless device is portable, has a locking mechanism, and an electrical receptacle for quickly attaching to a source of electricity, and wherein the wireless device further includes a portable energy source." Petitioner asserts that claim 15

would have been “obvious over Vaios in view of Schnell, and optionally Menard and/or Saylor.” Pet. 49.

a) Schnell

Schnell, relates to a “portable” “Motion Detector Camera.” Ex. 1031, code (54), 1:29. Schnell’s Figure 1 follows:

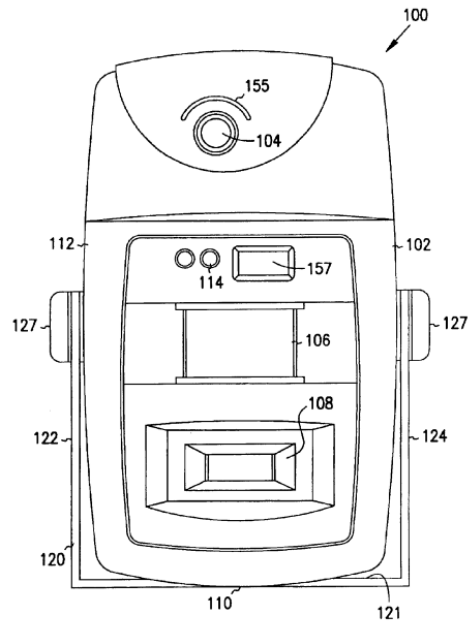


FIG. 1

Portable camera 100 in Figure 1 above includes LCD display 157. *Id.* at code (57), 1:9, 2:33–36, 3:64–67, Figs. 1–3. LCD display 157 displays the number of exposures taken by the camera, and other information, such as power level and so forth. *Id.* at 3:64–67.

Schnell’s Figure 2B follows:

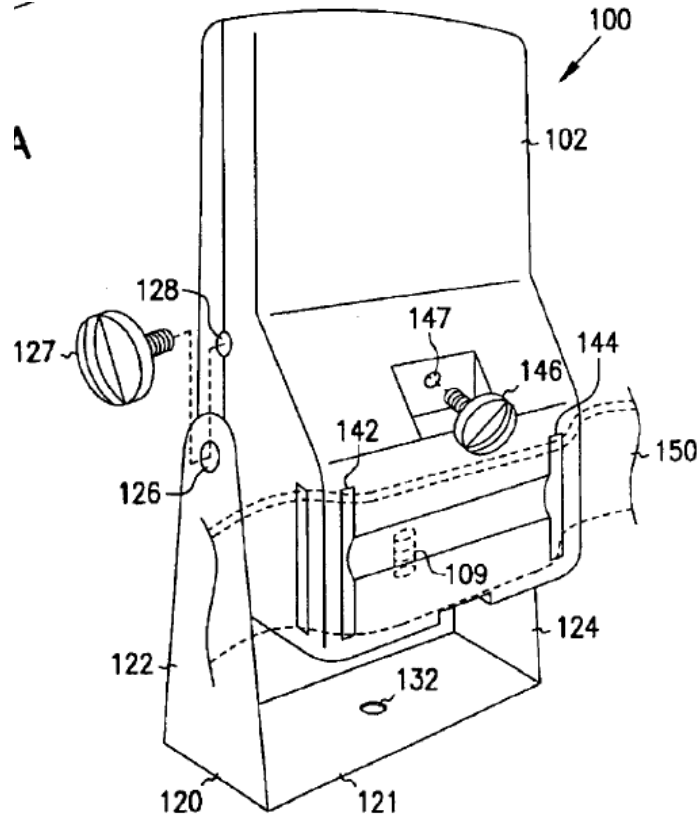


FIG. 2B

As illustrated in Figure 2B above, camera 100 includes one or more mounting members 142, 144, stand 120, housing 102, flexible band 150, mounting holes 126, 128, and bolt 127. Ex. 1031, 1:28–30, 1:62–63, 2:33–3:23, 5:34–47, 5:61–64, 6:3–28, Figs. 1–3, 7. In addition, the camera includes a DC jack 464 and electrical connections for batteries 468. *Id.* at 5:10–13, Fig. 5B.

b) Dependent Claim 15

Claim 15 depends from independent claim 1. Petitioner asserts that claim 15 would have been obvious under 35 U.S.C. § 103(a) based on Vaios in view of Schnell, and optionally Menard and/or Saylor. Pet. 49–58.

Petitioner generally contends that Schnell's camera embodiments 100, 400, 700 teach or suggest the features recited in claim 15. *See* Pet. 49–58.

Petitioner notes that Schnell's camera is "portable," and contends that Schnell's one or more mounting members 142, 144, stand 120, housing 102, flexible band 150, mounting holes 126, 128, and bolt 127 teach or suggest the recited "locking mechanism." Petitioner also notes that Schnell's camera 400 includes an electrical receptacle (e.g., DC jack 464 and/or electrical connections for batteries 468) "for quickly attaching to a source of electricity," as claim 15 also recites. *Id.* at 50 (citing Ex. 1034 ¶¶ 231–246; quoting Ex. 1031, 1:28–30; citing *id.* at 1:62–63, 2:33–3:23, 5:34–47, 5:61–64, 6:3–28, Figs. 1–3, 5B, 7).

Further regarding the recited "portable" limitation, Petitioner relies on Schnell's description of a "portable, full-featured motion detector camera," with mounting methods that "allow[] the camera to be portable while still allowing a user to know it is secure." Pet. 50 (alteration in original) (citing Ex. 1031, 1:63, 3:20–23). Petitioner also relies on Schnell's description of the camera's "compact size[, which] allows for easy portability and allows the camera to be easily hidden." *Id.* at 50–51 (quoting Ex. 1031, 5:61–64).

Further regarding the recited "locking mechanism," Petitioner contends that "Schnell teaches the use of a 'support or stand 120' to which the camera is 'removably attached' using a 'threaded bolt.'" Pet. 51 (quoting Ex. 1031, 2:61–3:12). To support its showing, Petitioner quotes Schnell as follows:

[H]ousing 102 is attachable to a support or stand 120. Stand 120 includes a base 121 which has a first arm 122 attached at one end and a second arm 124 attached at a second end. This structure provides an approximately U-shaped stand for mounting housing 102. Stand 120 includes a mounting hole 126 in each arm which is located so that a mounting bolt 127 extends through hole 126 to attach to a hole 128 in a side surface of housing 102 to mount the housing to the stand. In one example, mounting bolt 127 is a

threaded bolt having a hand-turnable knob on one end and hole 128 is a threaded hole. This allows the housing 102 to be removably attached to stand 120, while giving a user the options of other attachment methods.

Pet. 51 (alteration in original) (quoting Ex. 1031, 2:61–3:6).

Petitioner also contends that Schnell “teaches mounting the camera using ‘mounting members 142 and 144’ and ‘flexible band 150.’ Pet. 52 (quoting Ex. 1031, 3:13–23). To support its showing, Petitioner quotes Schnell as follows:

Another method of mounting housing 120 to a structure is provided by mounting members 142 and 144 located on the rear portion of housing 102. In one example, mounting members 142 and 144 are slots located on each rear corner, respectively, of the housing. As shown in FIG. 2B, a member such as a flexible band 150 can be threaded through the slots and attached to a surface, such as a tree, post, or other mounting surface. These various mounting methods can be combined so as to provide a secure mounting of the camera. This allows the camera to be portable while still allowing a user to know it is secure.

Id. at 52–53 (quoting Ex. 1031, 3:13–23).

Petitioner asserts that in Schnell, “both the configuration for securing the camera to stand 120 using threaded bolts as well as the configuration for mounting the camera using the mounting members and flexible band constitute ‘locking mechanisms,’ as claimed.” Pet. 53 (citing Ex. 1034 ¶¶ 234, 236).

Petitioner explains that the ‘184 patent states that “DVMS module 10 . . . includes a locking mechanism 28 for receipt in a mounting holster (not shown). The locking mechanism 28 enables the DVMS module 10 to be installed securely wherever holstered, or to be moved to some other remote location, as desired.” Pet. 54 (alteration in original) (quoting Ex. 1001, 8:14–18). Petitioner contends that “[n]either the specification nor the claims

of the '184 patent assign any specific structure or configuration to such a “locking mechanism.” *Id.* Petitioner asserts that securing Schnell’s camera “accomplish[es] the same intended function as ‘locking mechanism 28’ of the '184 patent of securely mounting the device in a manner that permits movement if so desired.” *Id.* (citing Ex. 1034 ¶ 237).

Petitioner also contends that Schnell’s camera includes an “electrical receptacle for quickly attaching to a source of electricity,” because it includes “power supply 304.” Pet. 54–55 (citing Ex. 1034 ¶ 239; Ex. 1031, 4:1–12). Petitioner asserts that Schnell states that “camera 100 includes DC jack 464 for optionally providing external power to the camera, and further teaches the optional use of “batteries 468 . . . as a power supply.” *Id.* at 55 (emphasis omitted, alteration in original) (quoting Ex. 1031, 5:12–14, Fig. 5B). Petitioner explains that Patent Owner asserted in infringement contentions that such a battery configuration satisfies the “electrical receptacle” limitation. *Id.* (citing Ex. 1033, 12).

Petitioner also asserts that both DC jack 464 and the compartment that contains the batteries 468 and/or the contacts that electrically connect to the terminals of batteries 468 constitute an “electrical receptacle for quickly attaching to a source of electricity,” as claimed. Pet. 55 (citing Ex. 1034 ¶ 239).

Petitioner also contends that Schnell’s camera embodiments (100, 400, 700) include batteries, for example “batteries 468” in camera 400. Pet. 55 (citing Ex. 1034 ¶¶ 240–241; quoting Ex. 1031, 5:13–14; citing *id.* at 6:3–28, Fig. 5C). Petitioner notes that Schnell states that “batteries 468 can also be used as a power supply.” *Id.* at 55 (citing Ex. 1031, 5:13–14).

Petitioner also asserts a person of ordinary skill in the art would consider Schnell’s batteries 468 as a “portable energy source.” Pet. 56

(citing Ex. 1034 ¶¶ 240–241). Based on Schnell’s teachings as summarized above, Petitioner contends that

[i]t would have been obvious . . . to combine the portability, locking mechanism, electrical receptacle, and portable battery power supply features taught in Schnell with the cameras of Vaios (either alone or as combined with the teachings of Menard and/or Saylor) to enable a portable monitoring device that can be easily and securely affixed in a desired location.

Id. at 56–57 (citing Ex. 1034 ¶¶ 242–245). According to Petitioner, “[t]he widespread use of batteries and DC power supplies as taught in Schnell, would have made the incorporation of such features in Vaios’ cameras a simple, predictable task.” *Id.* at 57 (citing Ex. 1034 ¶ 244).

Petitioner also contends that “a person of ordinary skill in the art would have been motivated to combine Vaios and Schnell by the desirability of creating portable cameras/monitoring devices.” Pet. 57–58 (citing Ex. 1034 ¶ 245; Ex. 1031, 3:2–24, 1:28–30, 1:62–63). Petitioner contends that a person of ordinary skill in the art

would have recognized the benefits associated with quickly and easily relocating a portable monitoring device and easily connecting the device both to power in a simple, convenient manner (e.g., using “hand-turnable knobs” and/or straps and battery power) as well as communicatively to other system devices (using wireless communications), and just as easily unsecuring and disconnecting the device for relocation.

Id.

Patent Owner lists some of the Petition’s stated motivations for all the grounds and contends “that the Petition fails to provide any motivation . . . beyond [the listed] . . . generic reasons” (PO Resp. 41) and further contends that the listed “motivations . . . are conclusory” (*id.* at 44). *See id.* at 41–44. Patent Owner also argues that “the Petition does not explain why a [person of ordinary skill in the art] would care about any of the articulated

motivations.” *Id.* at 44. Patent Owner also relies on its unavailing arguments addressed above in connection with combining Menard and Vaios to reach the “wireless device” limitation of claim 1. *Id.* at 34.

Petitioner’s rationale is not too generic or conclusory because Petitioner applies several beneficial features together to the limitations of claim 15 with factual underpinnings support it. *See Volvo*, 81 F.4th at 1209 (finding that “the Board’s motivation” was not “too generic and sufficient to support obviousness when it relied on “improved speed *and* improved efficiency together,” finding that “the prospect of increased speed and efficiency has the support of an express statement in one of the asserted prior art references,” and reasoning that “a broadly applicable motivation may be sufficient as long as it is supported by more than conclusory expert testimony”).

As summarized above, Petitioner shows that an artisan of ordinary skill would have recognized the desirability of portability including power and locking mechanism features as Schnell teaches with the wireless device of Vaios as modified by Menard, because these features would have provided a user with the capability to quickly and easily relocate the wireless device to desired areas for security purposes, including door activation, while allowing simple, fast, and predictable monitoring thereof without requiring wired power and separate attachment mechanisms.

Patent Owner also argues that “[t]he Petition claims that the desirability of creating portable cameras/monitoring devices as noted by Schnell is a reason to combine.” PO Resp. 44 (citing Pet. 26–27, 34, 38, 45, 49, 54, 59, 68, 75; Ex. 1034 ¶¶ 144, 158, 166, 178, 186, 203, 223, 266, 286). According to Patent Owner, “the camera in Schnell is already portable so

there is no need to combine it with anything to achieve portability.” *Id.* at 44–45 (citing Ex. 1031, 1:62–63).

Contrary to these arguments, as outlined above, Petitioner combines Schnell for all of its portability features, relying on specific teachings in Schnell, to address all of the added limitations of claim 15, persuasively showing the desirability of combining all of those features with the device of Vaios, and optionally with the device of Vaios as modified by Menard and/or Saylor. *See* Pet. 56–58 (citing Ex. 1034 ¶¶ 158, 166; Ex. 1031, 1:28–30, 1:62–63, 3:22–23). To the extent Patent Owner implies that Vaios, or Vaios, with Menard and/or Saylor, already includes all the features recited in claim 15 without the teachings of Schnell, it does not undermine the Petition’s showing, as Petitioner argues. *See* Reply 20 (arguing that the fact that Schell’s camera is portable “does not refute the asserted combination of Schnell”). In other words, Schnell simply provides more evidence as to the obviousness of the claimed portable camera with locking features, electrical receptacle, and portable DC batteries, for the reasons as outlined above.

Based on the record and foregoing discussion, Petitioner establishes persuasive reasons supported by factual underpinnings to combine the prior art teachings with a reasonable expectation of success to show the obviousness of claim 15.

Accordingly, we determine that Petitioner shows by a preponderance of evidence that claim 15 would have been obvious over the combined teachings of Vaios and Schnell, and optionally with the additional teachings of Menard and/or Saylor.

6. *Naidoo-068, Sabie, Vaios, and Saylor (Ground 5, Claim 14)*

As noted above, claim 14 depends from claim 1 and recites “wherein the wireless device and at least one of the peripheral devices are configured

for communications via text messaging.” Petitioner asserts that Naidoo-068 discloses all elements of claim 1, alternatively, all elements of claim 1 would have been met by “Naidoo-068 in combination with Vaios and/or Saylor.” Pet. 58. Like its showing for Ground 2 above, Petitioner relies on Sabie to teach the added limitations of claim 14, asserting that it would have been obvious to similarly utilize the text messaging communications of Sabie for communications between the wireless device and peripheral devices of Naidoo-068 (as alternatively modified in view of Vaios and/or Saylor). *See id.* at 71–72 (citing Ex. 1034 ¶ 314; Pet. 37–40).

a) *Naidoo-068*

Naidoo-068 relates to a “video security system for the remote verification and monitoring of conditions surrounding an alarm signal.” Ex. 1007, code (57). “[T]he security gateway is operable to detect an alarm condition and to record video of at least a portion of the premises relating to the alarm condition” *Id.* at 2:51–53.

Naidoo-068’s Figure 1 follows:

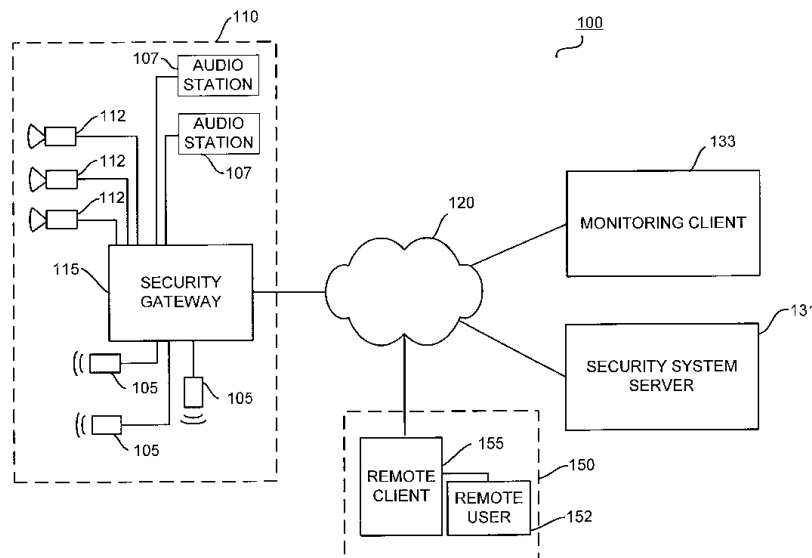


FIG. 1

Figure 1 above depicts a block diagram of security system 100, which comprises security gateway 115, and video cameras 112 and alarm sensor 105 coupled thereto and located at premises 110. Ex. 1007, 6:39–50.

Monitoring client 133 and security system server 131 also couple to security gateway 115, albeit through network 120. *Id.* As background, Naidoo-068 states that “[c]onventional security systems typically protect a building” with “[s]ensors . . . installed on doors and/or windows,” and “[w]hen the system is on and a sensor is tripped, a signal is sent . . . using radio frequencies (on wireless systems) . . . whenever an alarm occurs.”

Id. at 1:25–36.

In Naidoo-068’s system, alarm sensors 105 coupled to security gateway 115 detect alarm conditions. Ex. 1007, 7:38–39. “Upon detection of an alarm condition, security gateway 115 captures video (usually through an attached video camera 112) of the target site, and sends the video to security system server 131 in real time.” *Id.* at 6:51–54. “Whether separate alarm sensors 105 are present or not, security gateway 115 may use video from video camera 112 to assist in the determination of whether an alarm condition exists and thereby whether to generate and send an alarm signal to the security system server 131.” *Id.* at 7:60–64.

“Alarm sensors 105 may be wired directly into an alarm control panel built into security gateway 115 or they may be wirelessly connected.” Ex. 1007, 7:45–47. “It is understood that ‘coupled’ and ‘operatively coupled’ do not require a direct connection, a wired connection, or even a permanent connection.” *Id.* at 6:60–63. “[S]ecurity gateway 115 may be located remotely, but remain operatively coupled to security sensors 105 and video cameras 112 which are at the premises.” *Id.* at 6:48–50.

b) Limitations of Claims 14 and 15 via Claim 1

Claims 14 and 15 depend from claim 1. As noted above, Petitioner does not challenge claim 1 in this proceeding. Petitioner reads elements of claim 1 onto Naidoo-068, Vaios, and optionally, Saylor. *See* Pet. 58–71. Patent Owner disagrees. *See* PO Resp. 34–49. As also indicated above, the Board determined in the ’811 IPR that Petitioner persuasively showed that claim 1 would have been obvious based on Naidoo-068, Vaios, and optionally Saylor. *See* ’811 IPR FWD 59 (determining “that Petitioner shows by a preponderance of evidence that the combination of Naidoo-068, Vaios, and Saylor renders claims 1, 3–7, and 9 [of the ’184 patent] obvious”). The following analysis of claim 1 tracks portions of the analysis of claim 1 in the ’811 IPR FWD, because the parties’ showings and arguments largely overlap in a materially similar manner across the two proceedings.

(1) Claim 1’s Preamble

The preamble of claim 1 recites “[a] detection and viewing system, comprising.” Petitioner asserts that the preamble reads on Naidoo-068’s disclosure of a “video security system for the remote verification and monitoring of conditions surrounding an alarm signal.” *See* Pet. 59 (citing Ex. 1007, code (57), Fig. 1). Petitioner also notes that Naidoo-068 discloses that its system “detects alarm conditions and transmits information and video relating to the alarm condition” and provides “remote clients 155 with the ability to . . . view live and recorded media from their home.” *Id.* at 59–60 (quoting Ex. 1007, code (57), 20:14–17).

Even if the preamble is limiting, Petitioner’s showing with respect to the preamble is persuasive. Patent Owner does not address Petitioner’s showing with respect to the preamble. *See generally* PO Resp.

(2) *Limitation 1(a)*

Limitation 1(a) recites “a wireless device associated with a door and configured to communicate video data, the wireless device including a camera for providing the video data.” Petitioner contends that Naidoo-068’s video camera 112 wirelessly captures video of monitored premises 110. Pet. 60 (citing Ex. 1007, 7:54–64, 6:51–54, 16:53–17:3, Fig. 1; Ex. 1034 ¶ 251). Petitioner explains that “[v]ideo cameras 112 include ‘smart cameras’ that ‘perform video capture, compression and storage and . . . communicate with the security gateway using a home area network, e.g., wireless.’” *Id.* (second alteration in original) (quoting Ex. 1007, 16:53–17:3).

Petitioner also contends that “[v]ideo cameras 112 are ‘associated with a door’ [as claim 1 recites] as demonstrated by Naidoo-068’s teaching that they are ‘positioned at the front door of a residence.’” Pet. 60 (quoting claim 1; Ex. 1007, 14:22–23).

Patent Owner argues that Petitioner improperly combines different embodiments in Naidoo-068, one that involves triggering an alarm without reference to a door, and a separate door monitoring embodiment that involves non-alarm conditions. PO Resp. 35–36. In particular, Patent Owner argues that “Naidoo-068 provides, ‘in certain circumstances video from ***non-alarm conditions*** may also be viewed—for example, with an exterior camera 112, positioned at the front door of a residence.’” *Id.* at 35 (quoting Ex. 1007, 14:20–23). Patent Owner explains that “[t]he reference to ‘non-alarm conditions’ refers to instances of simple video monitoring or

surveillance where a security sensor is not triggered.” *Id.* (citing Ex. 1007, 7:38–40).¹⁷

As Petitioner argues, this line of argument mischaracterizes Naidoo-068, because Naidoo-068 “both monitors doors responsive to alarm conditions and also during non-alarm conditions.” Reply 11 (citing Ex. 1007, 14:15–28; Pet. 60). In context to the passage cited by the parties, Naidoo-068 states as follows:

In addition, CMS *operators can also access audio and video associated with the current alarm condition*. Operators can access live audio and video from the home, and the operator can switch between available cameras and control the muting of individual microphones. *In addition, in certain circumstances video from non-alarm conditions may also be viewed*—for example, with an exterior camera 112, positioned at the front door of a residence. In some embodiments, *due to privacy concerns, monitoring client 133 may be configured to only allow display audio and video content associated with an open alarm conditions*. Once the alarm condition has been closed by an operator, that content may no longer be made available for viewing.

Ex. 1007, 14:15–28 (emphasis added). As Petitioner argues, the passage shows that “[i]n addition” to viewing video instigated by alarm conditions “from the home” wherein operators are able to “switch between available cameras” to view video, this includes the capability to view cameras at

¹⁷ Patent Owner’s arguments here also pertain to related limitation 1(b), which recites “a sensor for activating the camera,” and limitation 1(e)(i), which recites “(e) wherein the computer executes software, in accordance with which, . . . 1(e)(i) video data from the wireless device is received by the computer upon activation of the sensor.” As found and determined below, Petitioner persuasively shows that Naidoo-068 discloses these related limitations or that Naidoo-068 with Vaios renders them obvious.

exterior doors, during non-alarm conditions, where “the home” includes its exterior doors. *See* Reply 11–12.

Another cited sentence supports Petitioner. Pet. 60 (citing Ex. 1007, 6:51–54). Naidoo-068’s cited sentence, which relates to a description of the system as depicted in Figure 1, states that “[u]pon detection of an alarm condition, security gateway 115 captures video (usually through an attached video camera 112) of the target site, and sends the video to security system server 131 in real time.” Ex. 1007, 6:51–54. Patent Owner does not address this cited sentence. It ties into the above-quoted passage that Patent Owner addresses, and the two together show that “camera 112” includes cameras at exterior doors and in general, an alarm activates “camera 112” to send video. *See id.* at 14:15–28 (describing video from “an exterior camera 112, positioned at the front door of a residence” with respect to Figure 5), 6:51–54 (describing “camera 112” as “send[ing] the video to security system server 131 in real time” “[u]pon detection of an alarm condition” with respect to Figure 1).¹⁸ In simple terms, because Naidoo-068 refers to “camera 112” with respect to both Figures 1 and 5, one of ordinary skill in the art would have recognized that the flowchart of Figure 5 applies to the system block diagram of Figure 1 because the former describes how the latter operates at least for one embodiment.

In addition, interpreting, as Patent Owner does, Naidoo-068’s description of video camera 112 monitoring an exterior door as providing for video viewing *only* during non-alarm conditions defeats the purpose of the

¹⁸ Figure 1 “is a high-level block diagram of an exemplary security system according to one embodiment of the present invention.” *Id.* at 6:39–42. Figure 5 “is a flowchart of the operation of the security system according to one embodiment of the disclosed system and method.”

security system. It is illogical to read Naidoo's system as video monitoring the home all the times for alarm conditions except for the exterior door, somehow providing exterior door video monitoring only during non-alarm conditions. Under Patent Owner's characterization, Naidoo-068's system must turn off the video camera at the exterior door when the sensor alarm triggers in order to detect video only during non-alarm conditions, which Naidoo-068 does not disclose. *See* Ex. 1007, 14:15–28.

In addition, addressing related limitation 1(e)(ii) (*see supra* note 17), Petitioner notes that Naidoo-068 generally states that its system “detect[s] an alarm condition and . . . record[s] video . . . relating to the alarm condition.” Pet. 69 (alterations in original) (quoting Ex. 1007, 2:51–53; citing *id.* at 6:51–54). Also, “[s]ensors 105 [e.g., audio sensors, infrared sensors, motion detectors, etc.] coupled to security gateway 115 . . . detect [the] alarm conditions.” *Id.* (second through third alterations in original) (quoting Ex. 1007, 7:38–45). And “security gateway . . . notif[ies] the security system server of the alarm condition and . . . transfer[s] the Alarm Video to a security system server in substantially real time.” *Id.* (alterations in original) (quoting Ex. 1007, 2:56–59).

Finally, describing the background of the invention, Naidoo-068 states that “[c]onventional security systems typically protect a building” with “[s]ensors . . . installed *on doors* and/or windows,” and “[w]hen the system is on and a sensor is tripped, a signal is sent . . . using radio frequencies (on wireless systems) . . . whenever an alarm occurs.” Ex. 1007, 1:25–36 (emphasis added). Problems of the conventional systems include that the video after an alarm condition is “low resolution . . . making it difficult for the viewer to discern” and “the video images may not be received by the monitoring party until several moments have passed after the recorded event

has actually taken place.” *Id.* at 2:26–32. Naidoo-068’s system builds upon and improves these conventional systems, including by “stor[ing] the *alarm video*.” *Id.* at 2:48–49, 5:32 (emphasis added). Therefore, Petitioner shows that Naidoo-068 contemplates implementing its disclosed system at a door to view video instigated by alarm conditions and optionally during non-alarm conditions when privacy is not a concern.

Accordingly, Petitioner’s showing for limitation 1(a) is persuasive.

(3) *Limitation 1(b)*

Limitation 1(b) recites “a sensor for activating the camera.” Petitioner contends that “Naidoo-068 discloses ‘sensors 105’ for activating video cameras 112.” Pet. 61 (citing Ex. 1034 ¶¶ 256–257; Ex. 1007, 7:38–52, 6:51–54, 2:51–53). To support its showing, Petitioner quotes Naidoo-068 as follows: “[S]ensors 105 [are] coupled to security gateway 115 to detect alarm conditions. . . . Examples include . . . audio sensors, infrared sensors, motion detectors” *Id.* (alterations in original) (quoting Ex. 1007, 7:38–45). Petitioner also quotes Naidoo-068 as stating that “[u]pon detection of an alarm condition, security gateway 115 captures video (usually through an attached video camera 112).” *Id.* (alterations in original) (quoting Ex. 1007, 6:51–54).

As summarized above, including with respect to limitation 1(a), the record supports Petitioner’s showing. Accordingly, Petitioner’s showing for limitation 1(b) is persuasive. Patent Owner does not contest Petitioner’s showing that Naidoo-068 discloses limitation 1(b), other than as discussed above in connection with limitation 1(a).

Petitioner alternatively asserts that the combination of Naidoo-068 and Vaios would have rendered limitation 1(b) obvious. Petitioner asserts that it would have been “obvious to activate Naidoo-068’s cameras upon

triggering of sensor(s) 105 as taught by Vaios.” Pet. 61 (citing Pet. 14 (addressing Vaios’s teachings); Ex. 1034 ¶¶ 258–261). Petitioner asserts that “[t]his would merely be a combination of known elements (e.g., Vaios’ camera activation responsive to triggering of a sensor with Naidoo-068’s system and camera/sensors) in a known manner to yield predictable results, and having a reasonable expectation of success.” *Id.* (citing Ex. 1034 ¶¶ 258–261). Petitioner explains that given a person of ordinary skill’s “proficiency . . . in implementing network communications/software,” such a person “would have found it a simple task to implement this feature in Naidoo-068 given its disclosure of the primary needed components/infrastructure (including motion sensors, cameras, and central computing devices (gateway 115/server 131)).” *Id.* at 61–62 (citing Ex. 1034 ¶¶ 258–261).

Petitioner asserts that “the proposed combination offered motivating advantages, such as the cost/energy savings afforded by avoiding continuous camera operation.” Pet. 62 (citing Ex. 1034 ¶¶ 258–261). At the cited paragraphs, Dr. Hochwald relies on Vaios’s motion sensor for its teaching that the motion sensor causes the video camera to start recording by turning it on (citing Ex. 1003, 3:14–30, 8:36–53), and testifies that “advantages [of the combination] included saving energy and operating costs (including increased battery life) that would otherwise be required for continuous camera operation” and also, advantages include avoiding “hav[ing] the camera continuously record or cache the video.” Ex. 1034 ¶¶ 258, 261.

Dr. Hochwald also testifies that “benefits would include longevity of the camera operation, conservation of video storage space, and conservation of energy and cost.” Ex. 1034 ¶ 261. He explains that “[w]hile there may be trade-offs associated with not including continuous camera operation

(such as less video), a [person of ordinary skill in the art] would recognize that there were many applications where a homeowner or user would be willing to prioritize the energy/cost savings of such a combination to continuous camera operation and recording.” *Id.*

Patent Owner generally argues that “nowhere in the cited paragraphs does Petitioner’s expert explain why a [person of ordinary skill in the art] would be motivated to combine Naidoo-068 with Vaio, two different surveillance systems.” PO Resp. 37. Patent Owner points to Petitioner’s rationale for combining Naidoo-068 and Vaio, creating “motivating advantages” such as “cost/energy savings afforded by avoiding continuous camera operation,” and asserts that it is conclusory. *Id.* at 43–44 (quoting Pet. 62).

Patent Owner’s generic arguments are unavailing and fail to address the “cited paragraphs” of “Petitioner’s expert.” *See* PO Resp. 36 (citing Pet. 62); Pet. 62 (citing Ex. 1034 ¶¶ 258–261). There is no reasonable dispute on this record that continuous operation of a video camera requires more resources and energy than intermittent operation, as Dr. Hochwald testifies and as summarized above. *See* Ex. 1034 ¶¶ 258–261. Without a user or operator to monitor the video continuously, it must be transmitted and stored for it to be useful, resulting in increased cost and energy and loss of camera life.

“The motivation-to-combine analysis is a flexible one. ‘[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed,’” but the “analysis ‘need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of

ordinary skill in the art would employ.” *PACT XXP*, 61 F.4th at 1379–80 (quoting *KSR*, 550 U.S. at 418, 420 (emphasis added, alteration in original)). On this record, a person of ordinary skill would have recognized that by providing triggered video to satisfy a security monitoring need, the combination creates “motivating advantages” such as “cost/energy savings afforded by avoiding continuous camera operation,” as Petitioner shows. Pet. 61–62 (citing Ex. 1034 ¶¶ 258–261).

Accordingly, Petitioner’s obviousness showing for limitation 1(b) is also persuasive.

(4) Limitation 1(e)(ii)

Limitation 1(e)(ii) recites “(e) wherein the computer executes software, in accordance with which . . . (ii) video data from the wireless device is received by the computer upon actuation of the sensor.” Similar to its showing for limitation 1(b), Petitioner asserts that “Naidoo-068 discloses that video data from the wireless device (‘cameras 112’) is received by the computer (‘security system server 131’/‘security gateway 115’) upon actuation of the sensor (‘sensor 105’).” Pet. 69 (citing Ex. 1034 ¶¶ 304–305). To support this showing, Petitioner quotes Naidoo-068 for its teachings as follows:

Naidoo-068’s system “detect[s] an alarm condition and . . . record[s] video . . . relating to the alarm condition.” EX1007, 2:51–53; *see also id.*, 6:51–54. “Sensors 105 [e.g., audio sensors, infrared sensors, motion detectors, etc.] coupled to security gateway 115...detect [the] alarm conditions.” *Id.*, 7:38–45. The “security gateway . . . notif[ies] the security system server of the alarm condition and . . . transfer[s] the Alarm Video to a security system server in substantially real time.” *Id.*, 2:56–59. Thus, security system server 131 receives video data from video cameras 112 upon actuation of sensor(s) 105, indicating an alarm condition, satisfying this limitation. Ex. 1034 ¶¶ 303–306.

Id. (alterations in original).

As summarized above, including with respect to related limitations 1(a) and 1(b), the record supports Petitioner’s showing. Accordingly, Petitioner’s showing for limitation 1(e)(ii) is persuasive. Patent Owner does not contest Petitioner’s showing that Naidoo-068 discloses limitation 1(e)(ii), other than as discussed above in connection with limitation 1(a).

(5) Limitation 1(e)(iii)

Limitation 1(e)(iii) recites “wherein the computer executes software, in accordance with which, . . . (iii) a graphical user interface is provided through which video data from the wireless device is accessible by each respective user using one of the peripheral devices.”

Petitioner contends that Naidoo-068’s security system server 131 includes a “messaging interface 738” which “provides remote clients 155 with the ability to . . . view live and recorded media from their home.” Pet. 70 (alteration in original) (quoting Ex. 1007, 18:30–33, 20:14–19). Petitioner also contends that “[m]essaging interface 738’ is a ‘network-based interface’ through which ‘application server 734’ of security system server 131 ‘provides and/or facilitates the features available to remote client 155’ including ‘viewing and editing account information [and] viewing . . . media.’” *Id.* (second and third alteration in original) (citing Ex. 1007, 20:18–22, 21:43–49). Based on these teachings, Petitioner contends that “[s]erver 131 thus provides a ‘graphical user interface’ (GUI) via messaging interface 738, given that messaging interface 738 enables a user to view graphical data (e.g., ‘live and recorded media’) and allows a user to provide inputs (e.g., to edit account information).” *Id.* at 70–71 (citing Ex. 1034 ¶¶ 308–309).

Patent Owner argues that “Naidoo-068 does not disclose a computer that executes software to provide a graphical user interface.” PO Resp. 36. Patent Owner explains that “there is no disclosure in Naidoo-068 that the security system server has software on it that provides a graphic user interface to a peripheral device.” *Id.* According to Patent Owner, “Petitioner infers the existence of a graphic user interface because the security system server in Naidoo-068 provides a messaging interface.” *Id.* (citing Pet. 66). However, according to Patent Owner, “[t]he interface could be entirely text based with no graphical interface.” *Id.* at 37.

Petitioner replies that Dr. Hochwald testifies that Naidoo-068’s messaging interface 738 displays graphical data at least by presenting “live and recorded media” as opposed to text, and it also enables a user to provide inputs. Reply 12 (citing Ex. 1034 ¶ 309; Ex. 1007, 18:30–33, 20:14–28; Ex. 1051 ¶ 43). As noted above, Petitioner contends that Naidoo-068’s security system server 131 includes a “messaging interface 738” which “provides remote clients 155 with the ability to . . . view live and recorded media from their home.” Pet. 70 (quoting Ex. 1007, 18:30–33, 20:14–19).

Based on these disclosures, an artisan of ordinary skill would have understood that “messaging interface 738” at the server, which provides a “network-based interface” to remote clients, is software-based functionality provided by the server (a computer) to the remote clients as a “messaging interface.” Naidoo-068 also states that this “network-based interface is an Internet website, or a portion of a website” in many embodiments. *See* Ex. 1007, 20:18–19. However, it is not clear if Naidoo-068 implies this messaging interface is a graphical interface. Given Petitioner’s obviousness showing as discussed above and below, there is no need to reach this issue.

That is, Petitioner alternatively asserts with respect to limitation 1(e)(iii) that it would have been “obvious to use a similar GUI in Naidoo-068 by simply incorporating Vaios’ corresponding GUI software or substituting Vaios’[s] GUI for Naidoo-068’s interface.” Pet. 71 (citing Ex. 1034 ¶¶ 310–311). Petitioner contends that “[s]uch a GUI presented motivating advantages including improved user experience, convenience, and control.” *Id.* (citing Ex. 1034 ¶¶ 310–311). At cited paragraph 310, Dr. Hochwald testifies that using a GUI “could have been easily accomplished by a [person of ordinary skill in the art] simply by incorporating Vaios’ corresponding software that provides its graphical user interface or by substituting Vaios’ graphical user interface for Naidoo-068’s interface.” Ex. 1034 ¶ 310. In addition, Dr. Hochwald testifies that “[t]he use of a graphical user interface was becoming standardized at the time of the alleged invention because of the computational and graphical power available, the ease of implementation and modification of such an interface.” *Id.* At paragraph 311, Dr. Hochwald testifies that “[s]uch an interface would allow consistent, convenient, and aesthetically pleasing control and direction of the surveillance system irrespective of the location of the user.” *Id.* ¶ 311.

Patent Owner argues that “nowhere in the cited paragraphs does Petitioner’s expert explain why a [person of ordinary skill in the art] would be motivated to combine Naidoo-068 with Vaios, two different surveillance systems.” PO Resp. 38. Patent Owner also argues that “Petitioner’s expert fails to adequately explain for how and why a [person of ordinary skill in the art] would modify Naidoo-068 to use the graphical user interface of Vaios.” *Id.* Patent Owner contends that Petitioner’s assertion of motivation is conclusory. *Id.* (citing Ex. 1002 ¶ 411 (arguing that “Petitioner’s expert relies on “ease of implementation” and “high expectation of success”

“[w]ithout any explanation”).¹⁹ Patent Owner also argues that “Petitioner’s expert cites no evidence regarding the state of the art . . . , evaluate the cost of the proposed modification, does not review products . . . , and did not cite to any evidence outside of Naidoo-068 or Vaios.” *Id.*

These arguments do not undermine Petitioner’s persuasive showing. Petitioner relies on Naidoo-068 and Vaios to support its showing as Patent Owner concedes. *See* PO Resp. 38. As summarized above, Petitioner and Dr. Hochwald show persuasively that implementing Vaios’s GUI in Naidoo-068’s system would have been a simple and predictable software modification (i.e., obtainable with a reasonable expectation of success), where GUIs were standardized software products known to provide ease of implementation and improve user experience and control. *See* Pet. 70 (citing Ex. 1034 ¶¶ 308–309; Pet. 23–27 (discussing Vaios’s GUI); Ex. 1034 ¶¶ 411–412. As Petitioner also argues, the Petition identifies “(the ‘why’) [as] ‘to provide an improved user experience, convenience, and control,’ as well as the ‘how,’ e.g., ‘by simply incorporating Vaios’ corresponding GUI software or substituting Vaios’ GUI for Naidoo-068’s interface.” Reply 22 (citing Pet. 71; Ex. 1034 ¶¶ 310–311). As Petitioner notes, “Dr. Hochwald explains how using a GUI was ‘becoming standardized at the time . . . because of the computational and graphical power available.” *Id.* (citing Ex. 1034 ¶¶ 310–311; Ex. 1051 ¶ 44) (alteration in original).

Contrary to Patent Owner’s arguments, it is not conclusory to rely on known advantages of a well-known software component, as evidenced by

¹⁹ There is no Exhibit 1002 in this proceeding. This argument and citation appear to be an artifact from the ’811 IPR. In any event, Exhibit 1034 ¶¶ 310–311 in this proceeding include similar testimony, and we address that here. *Compare* ’811 IPR, Ex. 1002 ¶ 411, *with* Ex. 1034 ¶¶ 310–311.

Vaios, as a reason to combine the reference teachings and employ this component in a predictable fashion according to its function. *See KSR*, 550 U.S. at 416. Petitioner and Dr. Hochwald show persuasively that implementing GUIs was a simple software modification, where GUIs were standardized software products and known to provide ease of implementation and improve user experience and control. *See Pet.* 70–71. As Petitioner persuasively argues, it would have been obvious “to incorporate Vaios’ graphical user interface in Naidoo-068’s system to provide a display that improved user experience, convenience, and control.” Reply 21 (citing *Pet.* 71; *Ex.* 1034 ¶¶ 310–311). Petitioner essentially shows that Vaios’s GUI provides a known technique for accessing and controlling video and is at least a suitable option for Naidoo-068’s similar messaging interface (and in addition provides advantages of improve user experience and control). *See PACT XXP*, 61 F.4th at 1380 (“If there’s a known technique to address a known problem using ‘prior art elements according to their established functions,’ then there is a motivation to combine . . . [and] ‘[i]t’s not necessary to show that a combination is the best option, only that it be a suitable option.’” (second alteration in original)).

Therefore, Petitioner shows persuasively that the combined teachings of Naidoo-068 and Vaios satisfy limitation 1(e)(iii), “wherein the computer executes software, in accordance with which, . . . (iii) a graphical user interface is provided through which video data from the wireless device is accessible by each respective user using one of the peripheral devices.”

Patent Owner also lists some of the Petition’s stated motivations for combining Naidoo-068 and Vaios (*PO Resp.* 43–44) and contends “that the Petition fails to provide any motivation . . . beyond [the listed] . . . generic reasons” (*id.* at 41) and further contends that the listed “motivations . . . are

conclusory” (*id.* at 44). Patent Owner also argues that “the Petition does not explain why a [person of ordinary skill in the art] would care about any of the articulated motivations.” *Id.* at 44.

Patent Owner’s allegation of “generic reasons” does not allege that Petitioner’s rationale is “too generic.” *See, e.g., Volvo* 81 F.4th at 1209 (finding that “the Board’s motivation” was not “too generic”). In *Volvo*, the court found that the Board’s rationale sufficient to support obviousness when it relied on “improved speed *and* improved efficiency together,” finding that “the prospect of increased speed and efficiency has the support of an express statement in one of the asserted prior art references,” and reasoning that “a broadly applicable motivation may be sufficient as long as it is supported by more than conclusory expert testimony.” *Id.*

Similar to the situation in *Volvo*, Petitioner’s rationale is not too generic or conclusory because Petitioner applies several beneficial features with factual underpinnings to support the obviousness showing as indicated above. For example, as summarized above, Petitioner shows that an artisan of ordinary skill would have recognized the desirability of providing certain advantages resulting from the combination such as cost/energy savings afforded by avoiding continuous camera operation as a result of providing a sensor to start the camera. *See* Pet. 62. In addition, the proposed combination provides “a single device that facilitates communication of network components with video cameras/audio stations at the site, collects audio and video data, and enables two-way communication with a remote individual, thereby creating a simpler, more user friendly, and convenient monitoring system.” *Id.* at 67. As another example, as noted above, implementing Vaios’s GUI in the system of Naidoo would have provided “improved user experience, convenience, and control.” *Id.* at 71.

Patent Owner’s characterization of these benefits as conclusory and generic fails to undermine the particularized reasons for the combination. For example, a single computer system at one location, as Vaios suggests, in place of Naidoo-068’s multiple devices spread over different locations, offers simplicity and compactness as a known option for providing security monitoring, as Petitioner shows based on Vaios’s teachings. *See* Pet. 65–66. And there is no reasonable dispute that a GUI is a graphical user interface that provides standardized ease of implementation, convenience, and control. *See id.* at 70–71 (citing Ex. 1034 ¶¶ 308–311). As Dr. Hochwald testifies as indicated above, “[t]he use of a graphical user interface was becoming standardized at the time of the alleged invention because of the computational and graphical power available, the ease of implementation and modification of such an interface.” Ex. 1034 ¶ 310. As Dr. Hochwald also testifies, “the ability to view video, and edit and add alarm events would have been naturally implemented with such an interface,” and a person of ordinary skill in the art “would have understood this combination of Vaios and Naidoo-068 to have a high expectation of success.” *Id.*

Finally, Patent Owner does not explain why Petitioner must explicitly point out “why a [person of ordinary skill in the art] would care about any of the articulated motivations.” *See* PO Resp. 44. Patent Owner appears to admit that Petitioner provides several “articulated motivations,” which represent “reasons to care.” *See id.* In any event, Petitioner’s articulated motivations as outlined above are persuasive for the reasons explained above. “The motivation-to-combine analysis is a flexible one. ‘[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed,’” but the “analysis ‘need not seek out precise teachings

directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *PACT XXP*, 61 F.4th at 1379–80 (quoting *KSR*, 550 U.S. at 418, 420 (emphasis added, alteration in original)).

For the reasons discussed above and as summarized above, the record supports Petitioner’s showing. Accordingly, Petitioner’s showing for limitation 1(e)(iii) is persuasive.

(6) Remaining Limitations of Claim 1

Petitioner persuasively maps the remaining limitations of claim 1 to the asserted prior art, and as necessary for obviousness, provides reasons sufficiently supported by factual underpinnings to combine the reference teachings with a reasonable expectation of success. *See* Pet. 59–71.

Petitioner’s showing is persuasive. *See id.*

Other than its above-addressed unavailing arguments related to Naidoo-068’s embodiments and its unavailing arguments directed to combining Naidoo-068 with Vaio, Patent Owner does not specifically challenge Petitioner’s showing as to these remaining limitations. *See generally* PO Resp.²⁰

²⁰ As noted above in the discussion of Ground 1, Patent Owner generally argues that “Saylor acknowledges that a [person of ordinary skill in the art] would not readily combine Saylor with another reference.” *See* PO Resp. 12. Patent Owner’s generic argument is unavailing as applied to Naidoo-068 for the same above-discussed reasons it is unavailing as applied to Vaio and Menard. In particular, Petitioner persuasively relies on Saylor to buttress its showing with respect to Naidoo-068 to address related limitations 1(c) and 1(e)(i), relying on similar reasons it employs to combine Saylor with Vaio. *See* Pet. 62–63 (“[I]t was obvious for Naidoo-068’s remote clients to each be associated with a respective user in view of Saylor for the same reasons discussed above for combining Vaio and Saylor.”), 68–69 (“It was obvious to associate Naidoo-068’s remote clients 155 with

(7) Summary

Based on the record and foregoing discussion, Petitioner establishes persuasive reasons supported by factual underpinnings to combine the prior art teachings with a reasonable expectation of success to show the obviousness of the subject matter of claim 1. Accordingly, with respect to the portions of dependent claims 14 and 15 that necessarily include all the limitations of independent claim 1, the record supports Petitioner's showing that Vaios, or alternatively, the combined teachings of Naidoo-068, Vaios, and/or Saylor would have rendered the subject matter of claim 1 obvious. Our determination here is consistent with the final written decision in the '811 IPR FWD. *See* '811 IPR FWD 59 (determining "that Petitioner shows by a preponderance of evidence that the combination of Naidoo-068, Vaios, and Saylor renders claims 1, 3–7, and 9 [of the '184 patent] obvious").²¹

c) Claim 14

Claim 14 depends from claim 1 and recites "wherein the wireless device and at least one of the peripheral devices are configured for communications via text messaging."

Relying on its showing with respect to Sabie and Ground 2 as outlined above, Petitioner asserts that it would have been obvious to similarly utilize

respective individuals to similarly provide notifications and video data to desired individuals via their associated peripheral devices for the same reasons discussed above for similarly combining Saylor with Vaios.").

²¹ The '811 IPR FWD, however, does not preclude Patent Owner's arguments here under collateral estoppel due to Patent Owner's pending appeal before the Court of Appeals for the Federal Circuit. Nevertheless, we find no reason on this record to deviate from the Board's decision in the '811 IPR FWD with respect to all of the limitations of claim 1, which claims 13 and 14 incorporate by virtue of their dependency from claim 1.

the text messaging communications of Sabie for communications between the wireless device and peripheral devices of Naidoo-068 (as alternatively modified in view of Vaios and/or Saylor). *See* Pet. 71–72 (citing Ex. 1034 ¶ 314; Pet. 37–40).

Based on the record, Petitioner persuasively maps the limitations of claim 14 to the asserted prior art, and as necessary for obviousness, provides reasons sufficiently supported by factual underpinnings to combine the reference teachings with a reasonable expectation of success. *See* Pet. 71–72. Patent Owner does not specifically challenge Petitioner’s showing with respect to this ground. *See* PO Resp. 34 (relying on arguments with respect to claim 1), 39–49 (providing generic arguments that do not apply to the instant ground).

Accordingly, based on the foregoing discussion, we determine that Petitioner shows by a preponderance of evidence that claim 14 would have been obvious over the combined teachings of Naidoo-068, Sabie, Vaios, and/or Saylor.

7. Naidoo-068, Vaios, Saylor, and Jae (Ground 6, Claim 14)

Claim 14 depends from claim 1 and recites “wherein the wireless device and at least one of the peripheral devices are configured for communications via text messaging.” Petitioner asserts that claim 14 would have been obvious over the combined teachings of “Naidoo-068 with Jae and optionally Vaios and/or Saylor.” Pet. 72.

Relying on its showing with respect to Jae and Ground 3 as outlined above, Petitioner asserts that it would have been obvious to similarly utilize the text messaging communications of Jae for communications between the wireless device and peripheral devices of Naidoo-068 (as alternatively

modified in view of Vaios and/or Saylor). *See* Pet. 72–73 (citing Ex. 1034 ¶ 314; Pet. 41–47).

Patent Owner does not specifically challenge Petitioner’s showing with respect to this ground. *See* PO Resp. 34 (relying on arguments with respect to claim 1), 39–49 (providing generic arguments that do not apply to the instant ground).

Based on the record, Petitioner persuasively maps the limitations of claim 14 to the asserted prior art, and as necessary for obviousness, provides reasons sufficiently supported by factual underpinnings to combine the reference teachings with a reasonable expectation of success. *See* Pet. 72–73.

Accordingly, based on the foregoing discussion, we determine that Petitioner shows by a preponderance of evidence that claim 14 would have been obvious over the combined teachings of Naidoo-068, Vaios, and Jae, and optionally with the additional teachings of Saylor.

8. Naidoo-068, Vaios, Saylor and Schnell (Ground 7, Claim 15)

Petitioner asserts that claim 15 would have been obvious over the combined teachings of over “Naidoo-068 with Schnell and optionally Vaios and/or Saylor.” Pet. 73.

Relying on its showing with respect to Schnell and Ground 4, on this preliminary record, Petitioner persuasively maps the limitations of claim 15 to the asserted prior art and provides reasons sufficiently supported by factual underpinnings to combine the reference teachings with a reasonable expectation of success. *See* Pet. 73–74 (citing Ex. 1034 ¶¶ 320–323; Pet. 49–56).

Patent Owner does not specifically challenge Petitioner’s showing with respect to this ground. *See* PO Resp. 34 (relying on arguments with

respect to claim 1), 39–49 (providing generic arguments that do not apply to the instant ground).

Accordingly, based on the foregoing discussion, we determine that Petitioner shows by a preponderance of evidence that claim 15 would have been obvious over the combined teachings of Naidoo-068, Vaios, and Schnell, and optionally with the additional teachings Saylor.

IV. CONCLUSION

For the reasons discussed above, Petitioner has shown by a preponderance of the evidence that claims 14 and 15 of the '343 patent are unpatentable, as summarized in the table below.

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
15	103	Vaios, Menard, Saylor	15	
14	103	Vaios, Sabie, Menard, Saylor	14	
14	103	Vaios, Jae, Menard, Saylor	14	
15	103	Vaios, Schnell, Menard, Saylor	15	
14	103	Naidoo-068, Sabie, Vaios, Saylor	14	
14	103	Naidoo-068, Jae, Vaios, Saylor	14	
15	103	Naidoo-068, Schnell, Vaios, Saylor	15	
Overall Outcome			14, 15	

V. ORDER

Accordingly, it is

ORDERED that Petitioner establishes by a preponderance of evidence that challenged claims 14 and 15 are unpatentable;

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.²²

²² Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. §§ 42.8(a)(3), (b)(2).

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