

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VIVINT, INC.,
Petitioner,

v.

SB IP HOLDINGS LLC,
Patent Owner.

IPR2022-00814
Patent 8,144,183 B2

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

LEE, *Administrative Patent Judge.*

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

I. INTRODUCTION

We instituted an *inter partes* review of claims 1–6 and 9–21 (“challenged claims”) of U.S. Patent No. 8,144,183 B2 (Ex. 1001, “the ’183 patent”) owned by SB IP Holdings LLC (“Patent Owner”). Paper 7 (“Decision to Institute” or “Inst. Dec.”). We have authority to conduct this

inter partes review under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. We determine that Vivint, Inc. (“Petitioner”) has proven by a preponderance of the evidence that each of claims 1–6 and 9–21 of the ’183 patent is unpatentable.

A. Background

Petitioner filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–6 and 9–21 of the ’183 patent. Patent Owner did not file a preliminary response. The Decision to Institute was entered on October 24, 2022. Paper 7. Thereafter, Patent Owner filed a Response. Paper 11 (“PO Resp.”). Petitioner filed a Reply. Paper 12. The parties waived oral argument. Paper 14.

B. Real Parties in Interest

Petitioner identifies only itself as real party in interest. Pet. 1. Patent Owner identifies only itself as real party in interest. Paper 4, 1.

C. Related Matters

Petitioner and Patent Owner each identify the following directly related litigations involving the ’183 patent: *SB IP Holdings LLC v. Vivint Smart Homes, Inc.*, No. 4:21-cv-00912 (E.D. Tex.); and *Vivint Inc. v. SB IP Holdings LLC*, No. 8:22-cv-00034 (C.D. Cal). Pet. 1; Paper 4, 2.

Patent Owner identifies other indirectly related judicial matters before the federal district courts and the U.S. Court of Appeals for the Federal Circuit. Paper 4, 2.

The following *inter partes* review proceedings involve patents related to the ’183 patent: IPR2022-00810 (U.S. Patent No. 8,139,098 B2); IPR2022-00811 (U.S. Patent No. 8,144,184 B2); IPR2022-00812 (U.S.

Patent No. 8,154,581 B2); and IPR2022-00813 (U.S. Patent No. 8,164,614 B2). Pet. 2; Paper 4, 1.

D. The '183 Patent (Ex. 1001)

The '183 patent discloses a method for two-way audio-video communications between a first person at an entrance and a second person. Ex. 1001, code (57). A proximity sensor located proximate an entrance detects the presence of a first person at the entrance and then real time audio-video communications is provided between that first person at the entrance and a second person using a wireless handheld device. *Id.* Video and audio of the first person are transmitted to the wireless handheld device of the second person. *Id.* In response, audio of the second person is transmitted to the first person at the entrance. *Id.*

Figure 1 of the '183 patent is reproduced below:

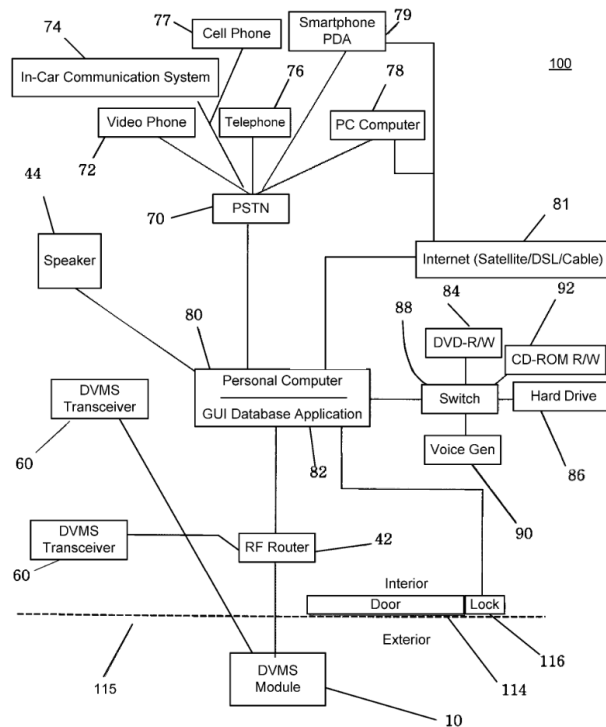


FIG. 1

Figure 1 shows system 100 having DVMS module 10 located on the exterior of the home or office proximate door 114.¹ *Id.* at 7:48-49.

Personal computer 80 runs a software application that includes DVMS Database Application 82 and graphic user interfaces (GUIs). *Id.* at 7:33–35. Personal computer 80, in accordance with the software application, controls communication in system 100, coordinates multiple communication devices in system 100, and is used to define responses to prompts and events in system 100. *Id.* at 7:35–39.

System 100 further includes one or more remote peripheral devices. *Id.* at 8:61–62. Such devices generally include video phones 72, in-car communication systems such as the well-known ONSTAR system 74 currently found in GM cars, telephones 76, cell phones 77, personal computers 78, smartphones/personal digital assistants (PDAs) 79, and other similar communication devices. *Id.* at 8:62–67. Each remote peripheral device is configured for electronic communication with personal computer 80 via at least public switching telephone network (“PSTN”) connection 70 or broadband connection 81. *Id.* at 7:17-18, 8:67–9:3.

¹ The ’183 patent does not expressly define the acronym “DVMS.”

Figure 2 of the '183 patent is reproduced below:

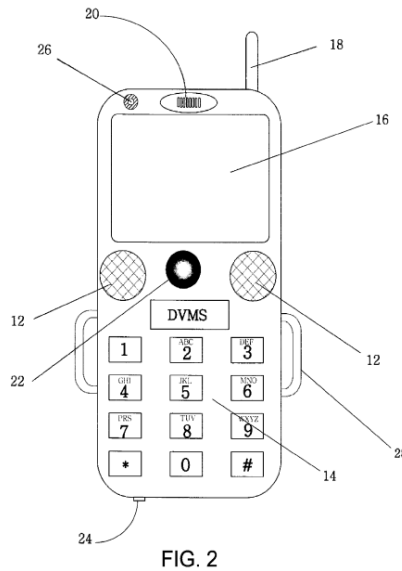


Figure 2 shows DVMS module 10 having video camera 22, speakers 12, proximity sensor 26, microphone 20, LCD display 16, quick connect electrical receptacle 24, and radio frequency receiver/transmitter represented by antenna 18. *Id.* at 7:56–60. Upon detection of movement, proximity sensor 26 activates camera 22, which in turn relays an image or streaming video to personal computer 80 where it is saved by personal computer 80 in a database in association with a timestamp. *Id.* at 7:60–65.

Claim 1 is independent and reproduced below:

1. A method for two-way audio-video communications between a first person at an entrance and a second person, comprising the steps of:
 - (a) detecting the presence of a first person at the entrance; and
 - (b) following detection of the presence of the first person at the entrance, providing real time audio-video communications between the first person at the entrance and a second person using a wireless handheld device by,

(i) transmitting, to the wireless handheld device of the second person, video of the first person at the entrance recorded using a camera located proximate the entrance,

(ii) transmitting, to the wireless handheld device of the second person, audio of the first person at the entrance recorded using a microphone located proximate the entrance, and

(iii) transmitting, to a speaker located proximate the entrance for playing to the first person at the entrance, audio of the second person recorded using the wireless handheld device.

Ex. 1001, 19:43–20:4.

E. Evidence Relied on by Petitioner

Petitioner relies on the following evidence:²

References		Date	Exhibit
Jacob	U.S. Patent No. 5,781,108	Issued July 14, 1998	1023
Vaios	U.S. Patent No. 6,271,752 B1	Issued August 7, 2001	1003
Courtney	U.S. Patent No. 6,385,772 B1	Issued May 7, 2002	1010
Naidoo	U.S. Patent No. 6,658,091 B1	Issued December 2, 2003; filed Feb. 1, 2002	1005
Knudson	U.S. Patent Publication No. 2003/0167176 A1	Published September 4, 2003; filed March 22, 2001	1022

² The '183 patent issued from Application 11/618,618, filed December 29, 2006. Ex. 1001, codes (21, 22). The '183 patent claims priority to Application 10/682,185, filed October 9, 2003, and Provisional Application 60/418,384, filed October 15, 2002. *Id.* at codes (60, 63).

References		Date	Exhibit
Lands	International Pat. Pub. No. WO 01/38174	Published June 29, 2000	1014
Menard	International Pat. Pub. No. WO 01/093220 A1	Published Dec. 6, 2001	1004
Jae	Korean Pat. App. Pub. No. 2001- 0084277	Published Sept. 6, 2001	1011

Petitioner also relies on a Declaration of Bertrand M. Hochwald, Ph.D. (Ex. 1002).³

F. Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–6 and 9–21 of the '183 patent on the following grounds:⁴

³ Patent Owner in its Response does not rely on the testimony of any technical witness.

⁴ Petitioner's Table of Contents and corresponding headings do not provide a clear and accurate statement of the alleged grounds of unpatentability for each claim. Petitioner lumps grounds based only on a subset of references into a ground relying on that subset plus additional references. For instance, there is a heading "Menard, Vaio and Courtney render Claims 2 and 18–20 unpatentable," but the arguments directed to claim 2 do not rely on Courtney. Pet. 15. Nor do the arguments against claims 18 and 20 require Courtney. As another example, there is a heading "Menard, Knudson, and Jacob render Claims 3–6 unpatentable," but the arguments against claims 3–5 do not rely on Jacob. Pet. 25. Our Table is based on the actual arguments presented by Petitioner. This Table is the same as the one we included in the Decision on Institution, except for the addition of obviousness of claims 1, 2, 9–12, 15, 16, and 18–21 over Naidoo, which Petitioner notes was in the Petition. See Paper 9.

Claims Challenged	35 U.S.C. §⁵	Reference(s)/Basis
1, 9–12, 15–17, 21	102	Menard
1, 9–12, 15–17, 21	103	Menard
2, 18, 20	103	Menard, Vaios
18, 19, 20	103	Menard, Courtney
18, 19, 20	103	Menard, Vaios, Courtney
3, 4, 5	103	Menard, Knudson
6	103	Menard, Knudson, Jacob
13	103	Menard, Lands
1, 3, 4, 9, 10, 12, 14–16	102	Jae
1, 3, 4, 9, 10, 12, 14–16	103	Jae, Menard
2, 18, 20	103	Jae, Vaios
18, 19, 20	103	Jae, Courtney
18, 19, 20	103	Jae, Vaios, Courtney
3, 4, 5	103	Jae, Knudson
6	103	Jae, Knudson, Jacob
3, 4, 5	103	Jae, Menard, Knudson

⁵ The Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102, 103. Based on the record before us, the ’183 patent has an effective filing date prior to the effective date of the applicable AIA amendments (March 16, 2013). Therefore, we apply the pre-AIA versions of 35 U.S.C. §§ 102, 103.

Claims Challenged	35 U.S.C. § ⁵	Reference(s)/Basis
6	103	Jae, Menard, Knudson, Jacob
11, 17, 21	103	Jae, Menard
13	103	Jae, Lands
1, 2, 9–12, 15, 16, 18–21	102	Naidoo
1, 2, 9–12, 15, 16, 18–21 ⁶	103	Naidoo
3, 4, 5	103	Naidoo, Knudson
6	103	Naidoo, Knudson, Jacob
13	103	Naidoo, Lands
16, 17	103	Naidoo, Menard

II. ANALYSIS

A. *The Burden of Proof on Challenged Patent Claims*

Petitioner must demonstrate by a preponderance of the evidence that the challenged claims are unpatentable. 35 U.S.C. § 316(e) (2018); 37 C.F.R. § 42.1(d) (2021). The burden of persuasion does not shift to the patentee. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

B. *Level of Ordinary Skill in the Art*

Petitioner contends that a person of ordinary skill in the art at the time of the alleged invention “is generally one who has a Bachelor’s degree in

⁶ The Decision on Institution incorrectly included only claims 2, 10, and 16 in this entry. Inst. Dec. 9. We subsequently made correction to include all of claims 1, 2, 9–12, 15, 16, and 18–21. Paper 9.

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. 4 (citing Ex. 1002 ¶¶ 21–24).

Patent Owner has not proposed its own statement of the level of ordinary skill in the art. Patent Owner also has not indicated that the level of ordinary skill is not or cannot be the level as proposed by Petitioner and whether it should be higher or lower.

Nonetheless, Patent Owner objects to Petitioner’s proposed level of ordinary skill in the art. PO Resp. 5–6. Patent Owner asserts that Dr. Hochwald’s opinion, on which Petitioner’s statement of the level of ordinary skill in the art is based, is “wholly conclusory” and also “is a black box.” *Id.* at 5. Patent Owner argues,

Petitioner and its expert rely on conclusory statements regarding a person of ordinary skill in the art. Petitioner cites exclusively to its expert (Petition at 5), and Petitioner’s expert merely lists a handful of factors in stating that he has taken those factors “into account.” Hochwald Decl. ¶¶ 21–24. This is a wholly conclusory opinion that is devoid of any analysis or even explanation for how the expert’s opinion was reached. Hochwald lists five factors but 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.” Fed. R. Evid. 702. Accordingly, Hochwald’s conclusory opinion should be given no weight. *One World Tech. Inc. v. Chevron Ltd.*, IPR2020-00885, 2020 WL 6542022, Paper 21 at 29 (P.T.A.B. Nov. 6, 2020) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

Id. at 5.

Patent Owner asserts that “[b]ecause Petitioner’s invalidity arguments are all premised on whether this black box POSITA [person of ordinary skill in the art] would be motivated to combine various references, each of Petitioner’s grounds lack a reliable prerequisite determination of the level of skill of a POSITA and are flawed as a result.” PO Resp. 6.

Petitioner’s assertion is adequately supported by the testimony of Dr. Hochwald. Ex. 1002 ¶¶ 21–24. We disagree with Patent Owner’s assertion that Mr. Hochwald’s testimony is wholly conclusory and is merely a black box, as in leaving us no understanding of how Dr. Hochwald’s stated conclusion on the level of ordinary skill in the art is reached. His testimony is neither merely conclusory nor a black box. There is no requirement that Dr. Hochwald further explain how the identified factors individually played into the overall assessment relative to the others. By expressing the factors he considered in arriving at his conclusion on the level of ordinary skill in the art, Dr. Hochwald has made his testimony not wholly conclusory and not a black box.⁷ Further, Dr. Hochwald declares that “[a]ll of the opinions contained in this declaration are based on the documents I have reviewed and my professional judgment, as well as my education, experience, and professional knowledge.” Ex. 1002 ¶ 17. Dr. Hochwald testifies that such documents include the “’183 patent (EX1001), the prosecution history of the ’183 patent (EX1017), the prior art references cited herein, and other

⁷ Dr. Hochwald specifically identified factors including types of problems encountered in the art, prior solutions to those problems, rapidity with which innovations are made, sophistication of technology at the time of the invention, and education levels and experience of persons working in the field and capable of understanding the applicable scientific and engineering principles. Ex. 1002 ¶ 22. Patent Owner does not contend that those factors are inappropriate for Dr. Hochwald to consider.

exhibits I have cited in this declaration.” *Id.* ¶ 18. We do not find Dr. Hochwald’s testimony with regard to the level of ordinary skill in the art to be wholly conclusory and a black box as Patent Owner contends.

Petitioner’s assertion of the level of ordinary skill in the art also is consistent with the content of the applied prior art references. *Cf. Okajima v. Bourdeau*, 261 F.3d 1350, 1354–55 (Fed. Cir. 2001) (the applied prior art may reflect an appropriate level of skill). For this Final Written Decision, we adopt Petitioner’s statement of the level of ordinary skill in the art, as we did in the Decision on Institution (Inst. Dec. 10).

C. Claim Construction

1. General Principles

We use the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b). The claim construction standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) is applicable.

Claim terms are generally given their ordinary and customary meaning as would be understood by one with ordinary skill in the art in the context of intrinsic record including the specification, the prosecution history, and other claims, and extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises. *Phillips*, 415 F.3d at 1312–17. Extrinsic evidence is less significant than the intrinsic record. *Id.* at 1317. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315.

The specification may reveal a special definition given to a claim term by the patentee, or the specification or prosecution history may reveal an intentional disclaimer or disavowal of claim scope by the inventor. *Id.* at 1316. If an inventor acts as his or her own lexicographer, the definition must be set forth in the specification with reasonable clarity, deliberateness, and precision. *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). The disavowal, if any, can be effectuated by language in the specification or the prosecution history. *Poly-Am., L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1136 (Fed. Cir. 2016).

Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Neither Petitioner nor Patent Owner has proposed a construction for any claim term. We determine that no express claim construction is necessary for this Decision.

D. Patent Owner Argument Against All Grounds of Unpatentability

Against all grounds of unpatentability asserted by Petitioner, Patent Owner argues that they all “are flawed” for lacking “a reliable prerequisite determination of the level of skill of a POSITA [person of ordinary skill in the art].” PO Resp. 6. However, for reasons discussed above in Section II.B., we find nothing wrong with Petitioner’s presentation and reliance on its stated level of ordinary skill in the art. Accordingly, Patent Owner’s argument that Petitioner’s asserted grounds of unpatentability are flawed for

lack of a reliable prerequisite determination of the level of skill of one of ordinary skill in the art is without merit and unpersuasive.

Patent Owner also argues:

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. For example, Petitioner relies almost exclusively on Dr. Hochwald's declaration for why Vaio would be obvious on its own without providing analysis in the Petition. *See, e.g.*, Petition, 15. It is apparent that Petitioner did so to avoid the word count limit, which is improper. *See Pac. Market Int'l v. Ignite USA, LLC*, No. IPR2016-01875, 2018 WL 1582299, at * 6 (P.T.A.B. Mar. 27, 2018) (disregarding expert testimony because the party "attempt[ed] to incorporate by reference three pages of argument that would not fit" within the word limits.).

PO Resp. 18–19. Patent Owner states: "Without the arguments and evidence in Dr. Hochwald's declaration, Petitioner has not provided its obviousness analysis and it is neither the Patent Owner's nor the Board's job to sift through Dr. Hochwald's declaration in order to decipher Petitioner's argument." *Id.* at 19. Patent Owner asserts that considering Dr. Hochwald's testimony "disadvantages Patent Owner and fails to provide [Patent Owner] notice," and that, thus, "[t] Board should deny the Petition." *Id.* at 20.

Patent Owner's argument is misplaced. There is no requirement that all statements in a supporting expert declaration be present in a petition, for the petition to not have improperly incorporated by reference from the declaration. A petition can provide general reasoning, and the expert declaration can provide more or further detail in support of that reasoning. What a petitioner may not do is to simply state conclusions in the petition, and rely on the expert declaration to provide all of the reasoning,

explanation, and analysis. Patent Owner has not shown that that is what Petitioner has done.

We do not see the Petition as simply stating conclusions and leaving all reasoning and analysis to be expressed in the testimony within the expert declaration. We do not have to resort to Dr. Hochwald's declaration to ascertain Petitioner's reasoning and analysis. Patent Owner identifies only page 15 of the Petition as an example of the expert declaration supplying all reasoning and analysis. We have reviewed page 15 of the Petition and do not find support for Patent Owner's assertion.

On page 15 of the Petition, in an introductory paragraph for Ground 2 ("Menard, Vaios, and Courtney" for claims 2 and 18–20), the Petition states: "Claims 2 and 18–20 of the '183 patent are obvious in view of Menard with Vaios and/or Courtney under 35 U.S.C. § 103(a), as detailed below and in Dr. Hochwald's declaration (*see* EX1002, ¶¶166–217)." Pet. 15. That is the introductory paragraph of Petitioner's presentation for claims 2 and 18–20, not the body of Petitioner's reasoning and analysis for claims 2 and 18–20.

Petitioner's presentation for these claims on this ground of unpatentability appears on pages 15–25 of the Petition. On those pages of the Petition, Petitioner cites to various paragraphs of Dr. Hochwald's declaration to support the corresponding reasoning and analysis presented in those pages of the Petition. The broad reference to "EX1002, ¶¶166–217" in the introductory paragraph on page 15 is a summary of which paragraphs of the declaration pertain to this ground of unpatentability, and has no significance beyond the specific paragraphs later cited on pages 15–25 of the Petition. Patent Owner mis-directs its focus to this general reference rather than the Petitioner's specific citation of declaration paragraphs that follows Petitioner's reasoning and analysis appearing on pages 15–25.

Patent Owner further argues:

Even assuming Dr. Hochwald's declaration was not an attempt to circumvent the page limits, there is no technical support or evidence for his statements. Instead, the entirety of Dr. Hochwald's declaration is an extended version of the Petition itself, full of attorney argument without more. These statements are pure *ipse dixit*, which is woefully insufficient and cannot sustain Petitioner's burden.

PO Resp. 20. We do not find that Dr. Hochwald's declaration lacks technical support or evidence for his statements or that the entirety of Dr. Hochwald's declaration to be an extended version of the Petition, full of attorney argument without more. Patent Owner does not provide any specific example and, yet, makes a broad sweeping statement about the entirety of Dr. Hochwald's declaration. If the same statements appear in the declaration and in the Petition, that does not transform the expert's testimony into mere attorney argument. Rather, the testimony directly supports the attorney argument.

We find that Dr. Hochwald generally makes adequate and sufficient references to the various prior art references he discusses. *See, e.g.*, Ex. 1003 ¶¶ 101–138. We also find that Dr. Hochwald generally makes adequate and sufficient reference to various evidence that support his opinions on what was known to or would have been recognized by one with ordinary skill in the art at the pertinent time. *See, e.g.*, Ex. 1002 ¶¶ 139–141.

Accordingly, the arguments of Patent Owner directed to all grounds of unpatentability presented by Petitioner, based on Patent Owner's above-noted characterizations of Dr. Hochwald's declaration, are without merit.

E. Alleged Anticipation of Claims 1, 9–12, 15–17, and 21 by Menard

1. Principles of Anticipation

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). The anticipation inquiry takes into account the literal teachings of the prior art reference, as well as inferences the ordinarily skilled person would draw from it. *Eli Lilly & Co. v. L.A. Biomed. Res. Inst. at Harbor-UCLA Med. Ctr.*, 849 F.3d 1073, 1074–75 (Fed. Cir. 2017); *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003); *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991).

Although the elements must be arranged in the same way as is recited in the claim, “the reference need not satisfy an *ipsissimis verbis* test.” *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009); *In re Bond*, 910 F.2d 831, 832–33 (Fed. Cir. 1990)). Thus, identity of terminology between the prior art reference and the claim is not required.

*2. Overview of Menard*⁸

Menard teaches a wireless communication and control system for a variety of applications, including building maintenance and control, premises security, and personal safety. Ex. 1004, 1:7–9. 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.

⁸ Citation to the pages of Menard are made with reference to the actual page numbers of Menard, not to the six-digit BATES numbering added by Petitioner.

Figure 1 of Menard is reproduced below:

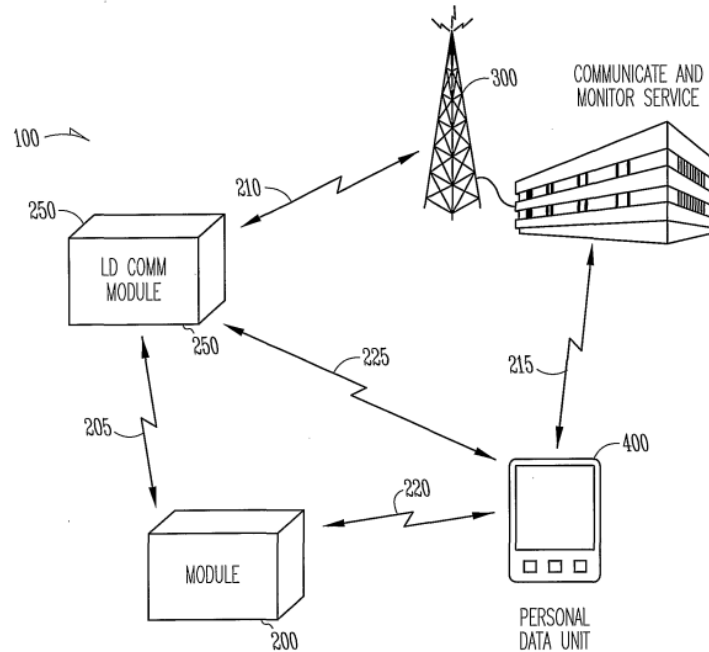


Fig. 1

Figure 1 shows a system 100 that includes “module 200, long distance communication (‘LD comm’) module 250, communication and monitor service facility (‘facility’) 300, and personal data unit (‘PDU’) 400.”⁹ *Id.* at 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. *Id.* at 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 transmitted by module 200, PDU 400 displays or renders the information in

⁹ 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.

a manner useful to a person carrying PDU 400, and provides an audible signal to the user. *Id.* at 13:17–19.

Figure 7 of Menard is reproduced below:

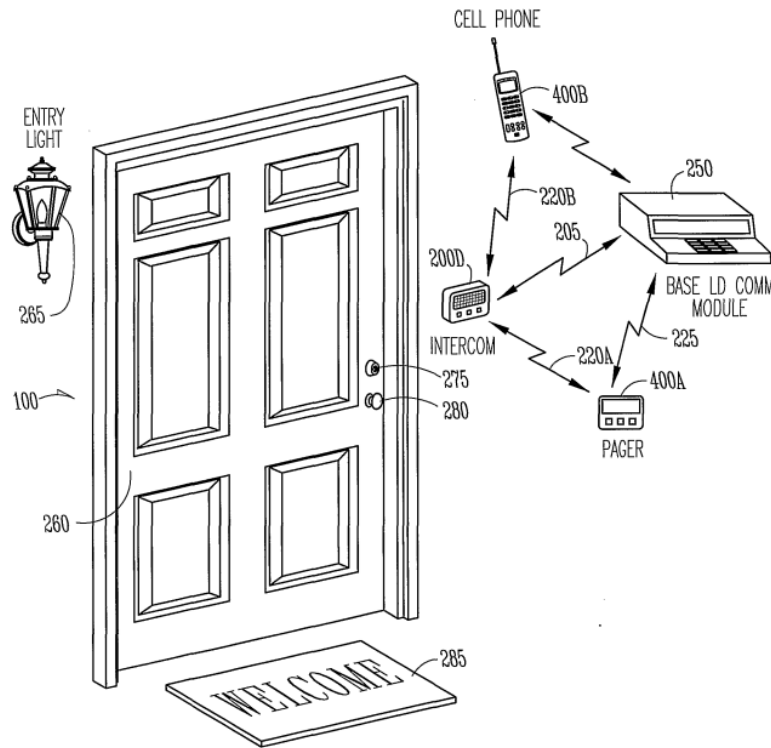


Fig. 7

Figure 7 illustrates an entry door with Menard's system. *Id.* at 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 that includes LD comm module as well as user operable controls and display to enable programming and operation of system 100. *Id.* at 20:3–8. Menard describes 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 is reproduced below:

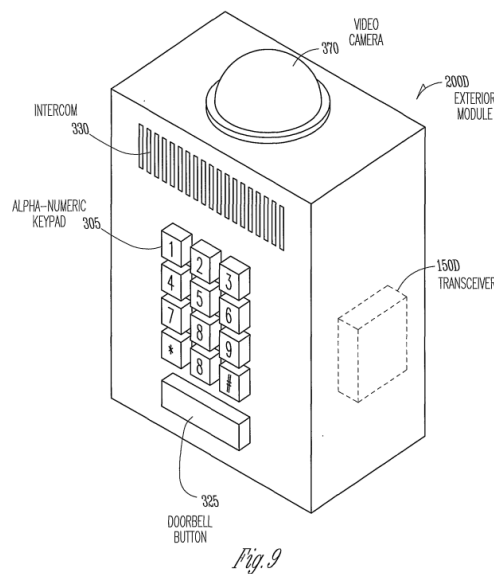


Figure 9 depict exterior module 300D having video camera 370 and transceiver 150D. *Id.* at 23:15–17. The arrival of the caller is detected by video camera 370. *Id.* at 21:13–14. In response to actuation of the button, or detection by camera 370, exterior module 200D transmits a wireless signal. *Id.* at 21:14–15.

Figure 10 of Menard is reproduced below:

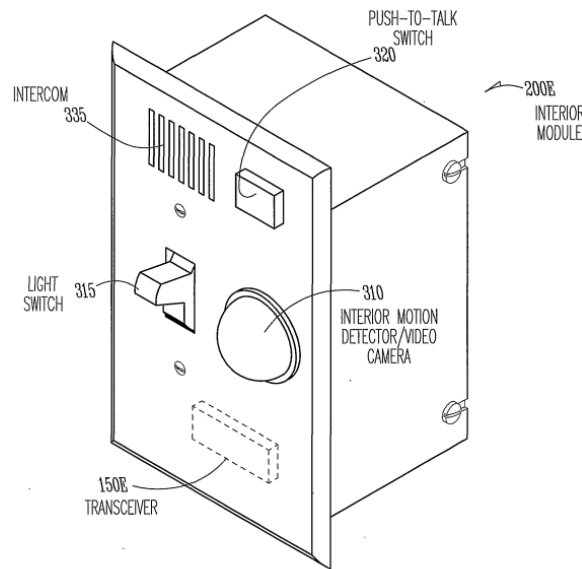


Fig. 10

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. *Id.* at 22:29–31.

3. *Independent Claim 1*

Claim 1 begins with this preamble: “A method for two-way audio-video communications between a first person at an entrance and a second person, comprising the steps of.” *Id.* at 19:44–47. Petitioner asserts that Menard discloses such a method. Pet. 6 (citing Ex. 1004, code (57)).

Petitioner explains that Menard’s system includes exterior module 200D at entry door 260 of a residence, that module 200D detects arrival of a caller

and initiates communication with PDU 400, and that the communication includes an audio communication channel by which “the caller and user can engage in bidirectional verbal discourse.” *Id.* at 6–7 (citing Ex. 1004, 21:1–10, 14–21, Fig. 7). Petitioner further explains that in Menard, graphical images such as “‘real-time video’ are communicated from exterior module 200D to PDU 400.” *Id.* at 7 (citing Ex. 1004, 21:22–25).

Patent Owner has not presented a counter argument, except to assert that Menard does not disclose Step 1(b)(i): “transmitting, to the wireless handheld device of the second person, *video* of the first person at the entrance recorded using a camera located proximate the entrance.” PO Resp. 21–22. As discussed below, we disagree, and find that Menard does disclose Step 1(b)(i). Because Menard discloses Step 1(b)(i), Menard discloses the recitation of the preamble. We need not decide whether this preamble is limiting.

Step 1(a) recites “detecting the presence of a first person at the entrance.” Ex. 1001, 19:48–49. Petitioner asserts that Menard discloses such detecting by either video camera 370 or doorbell button. Pet. 7. Menard states: [A]rrival of the caller is detected by video camera 370.” Ex. 1004, 21:13–14. Patent Owner has not presented a counter argument. Petitioner has shown that Menard discloses Step 1(a).

Step 1(b) recites “following detection of the presence of the first person at the entrance, providing real time audio-video communications between the first person at the entrance and a second person using a wireless handheld device by.” Ex. 1001, 19:49–52. Petitioner asserts that Menard discloses this step by way of exterior module 200D communicating with wireless handheld device PDU 400, where PDU 400 may be a wireless handheld device such as a cellular telephone, personal data (or digital)

assistant, or portable computer. Pet. 8 (citing Ex. 1004, 21:14–18; 21:19–20). According to Petitioner, upon detection by camera 370, for example, exterior module 200D transmits a wireless signal to PDU 400, which opens an audio communication channel so that “the caller and user can engage in bidirectional verbal discourse.” *Id.* (citing Ex. 1004, 21:19–21). In addition, exterior module 200D captures and transmits “real-time video images” to PDU 400. *Id.* (citing Ex. 1004, 21:22–25).

Patent Owner has not presented a counter argument, except to assert that Menard does not disclose Step 1(b)(i): “transmitting, to the wireless handheld device of the second person, *video* of the first person at the entrance recorded using a camera located proximate the entrance.” PO Resp. 21–22. As discussed below, we disagree, and find that Menard does disclose Step 1(b)(i). Petitioner has shown that Menard discloses Step 1(b).

Step 1(b)(i) recites “transmitting, to the wireless handheld device of the second person, video of the first person at the entrance recorded using a camera located proximate the entrance.” Ex. 1001, 19:53–56. Petitioner asserts that Menard discloses this limitation with “real-time video images” images obtained by video camera 370 of exterior module 200D and transmitted to PDU 400. Pet. 8 (citing Ex. 1004, 21:22–26). Specifically. The cited portion of Menard states:

In one embodiment, the user may opt to receive a graphical image of the caller using PDU 400. Entry of an appropriate command causes exterior module 200D to capture an image using exterior video camera 370 and transmit said image to PDU 400. *The graphical image may include a still image or real-time video images.*

Ex. 1004, 21:21–26 (emphasis added). Citing the testimony of Dr. Hochwald, Petitioner further asserts that the real-time video images are

of the first person at the entrance, thus demonstrating that communication of the images is responsive to the arrival of the caller at the entrance. *Id.* at 9 (citing Ex. 1002 ¶ 121; Ex. 1004, 21:5–15).

Patent Owner argues:

Video and images are not the same thing. Real-time video images are not the same as video either, otherwise Menard would have just said video. A video image in this context means an image taken from a video. This is much different than the plain and ordinary meaning of “video,” which is “a recording of moving pictures and sound, especially as a digital file, DVD, etc.” EX2002.

PO Resp. 22–23. Exhibit 2002, cited by Patent Owner, is the entry for “video” in Cambridge Dictionary, *available at* <https://dictionary.cambridge.org/us/dictionary/english/video>. The entry states: “a recording of moving pictures and sound, especially as a digital file, DVD, etc.” Ex. 2002.

We disagree with Patent Owner’s assertion that real-time video images are not the same as video. Patent Owner contends that if it were then Menard would have just said video rather than real-time video images. PO Resp. 22. The argument is presumptuous, speculative, and not supported by record evidence including any testimony from an expert witness. Patent Owner disregards that there may be more than one way to say the same thing. Patent Owner also disregards that “real-time video images” implies time sequenced recording as motion occurs because the recordation is in real-time. The “real-time” modifier confirms that any motion of the subject as seen by the video camera of Menard is captured and reflected by the video images taken by the video camera and then transmitted.

Patent Owner’s argument is also unreasonable. Menard itself expressly uses the term “video.” Ex. 1004, 21:21–26. We do not find any

reason or basis to read “video” as “non-video” simply because Menard adds “images” after “video” to yield “video images.” Patent Owner does not dispute that “video” includes images viewed in a timed sequence. The nature of “video” does not change when the term “real-time video images” is used, and “real-time video images” satisfy even the dictionary definition of “video” cited by Patent Owner, except for the non-inclusion of sound. It is uncertain whether Patent Owner also argues that a video must include sound. To the extent Patent Owner has made that argument, we disagree. We find nothing in the Specification of the ’183 patent indicating that a recording of time sequenced images is not “video” unless sound is included as a part of the recording, and Patent Owner has pointed to no such description in the ’183 patent. Further, the dictionary definition of “video” cited by Patent Owner (Ex. 2002) is reasonably read to indicate simply that images and sound together make a video, and not that a video recording must always include sound.

Petitioner in its Reply provides a dictionary definition which indicates that a “video” can simply be the recording of “an image” or “moving images” (Ex. 1031, 3), and also a dictionary definition which indicates that a “video” can be a broadcasting of visual images of stationary objects (Ex. 1032. 2). We need not reach whether the recording of one still image constitutes a “video,” and whether the recording of multiple still-images of a stationary object constitutes a “video,” because the parties do not dispute that Menard discloses recording and transmission of “real-time video images.” There also is no disagreement between the parties that a recording of time sequenced images of a person as motion of the person occurs, i.e., in real-time, constitutes a video. We credit Dr. Hochwald’s testimony that “a [person of ordinary skill in the art] at the time of the alleged invention would

have understood that ‘opt[ing] to receive a graphical image’ including ‘real-time video images’ includes real-time video communication between the ‘caller at entry door 260’ (e.g., the first person) and the user (e.g., the second person).” Ex. 1002 ¶ 115. Patent Owner has not presented any contrary expert testimony in this regard. Dr. Hochwald’s testimony is also consistent with the deposition testimony of Patent Owner’s expert witness in related district litigation involving U.S. Patent No. 7,193,644, the parent to the ’183 patent: “Having a recording that can be viewed in real time would be an example of streaming video.” Ex. 1033, 29:2–18.

Additionally, we are persuaded by Petitioner’s assertion that

Menard explicitly distinguishes between a “still image” and “real-time video images” by stating that the “graphical image may include a still image **or** real-time video images.” EX1004, 21:25–26. Thus, Menard is describing two alternative forms of media that may be transmitted to PDU 400: 1) a still image; and 2) real-time video images, i.e., “video.”

Reply 11. That is a better and more reasonable view than Patent Owner’s position that even real-time video images refer to still images (PO Resp. 22–23).

For the foregoing reasons, Petitioner has shown that Menard discloses Step 1(b)(i).

Step 1(b)(ii) recites “transmitting, to the wireless handheld device of the second person, audio of the first person at the entrance recorded using a microphone located proximate the entrance.” Ex. 1001, 19:57–60.

Petitioner asserts that Menard discloses this limitation by way of the audio communication channel established between wireless handheld device PDU 400 and exterior module 200D through which the caller and user can engage in bidirectional verbal discourse. Pet. 9 (citing Ex. 1004, 21:19–21).

Further, Petitioner asserts that exterior module 200D installed at entry door 260 includes intercom 330 having a microphone for conducting intercom, or audio-communication functions. *Id.* at 10 (citing Ex. 1004, 22:20–23).

Patent Owner has not presented a counter argument in this regard. Petitioner has shown that Menard discloses step 1(b)(ii).

Step 1(b)(iii) recites “transmitting, to a speaker located proximate the entrance for playing to the first person at the entrance, audio of the second person recorded using the wireless handheld device.” Ex. 1001, 20:1–4. Petitioner asserts that Menard discloses this limitation because Menard discloses that the caller and user can engage in bidirectional verbal discourse using exterior module 200D and PDU 400. Pet. 10. Exterior module 200D includes intercom 330 having a speaker which can play audio of the second person recorded by PDU 400. *Id.* at 10–11. Patent Owner has not presented a counter argument in this regard. Petitioner has shown that Menard discloses step 1(b)(iii).

Petitioner has proven by a preponderance of the evidence that claim 1 is anticipated by Menard.

4. Dependent Claims 9–12, 15–17, and 21

Claims 9–12, 15–17, and 21 each depend, directly or indirectly, from claim 1. Petitioner persuasively accounts for the additional limitations of these dependent claims. Pet. 11–15. Patent Owner has not presented arguments separate from those it has asserted for claim 1. Petitioner has shown that Menard discloses all of the additional limitations of each of claims 9–12, 15–17, and 21. Petitioner has proven by a preponderance of the evidence that each of claims 9–12, 15–17, and 21 is anticipated by Menard.

F. Alleged Obviousness of Claims 1, 9–12, 15–17, and 21 over Menard

1. Principles of Obviousness

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious 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). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations, including commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). “[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Kahn*, 441 F.3d at 988.

2. Claims 1, 9, 11, 12, 15–17, and 21

Although Petitioner asserts obviousness of claims 1, 9, 11, 12, 15–17, and 21 over Menard, Petitioner argues nothing beyond its assertion that Menard discloses the limitations of each of these claims. Pet. 6–15. For the reasons given above with respect to Menard anticipating each of claims 1, 9, 11, 12, 15–17, and 21, Petitioner has made a nominal showing of obviousness of these claims over Menard. A disclosure that anticipates under 35 U.S.C. § 102 also renders the claim unpatentable under 35 U.S.C.

§ 103(a), because anticipation is the epitome of obviousness. *See In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002) (“It is well settled that ‘anticipation is the epitome of obviousness.’”) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)).

3. *Claim 10*

Claim 10 depends directly from claim 1 and recites “the wireless handheld comprises a video phone.” Ex. 1001, 20:29–30. Petitioner asserts that it would have been obvious to one with ordinary skill in the art to use a video phone in this manner. Pet. 11 (citing Ex. 1002 ¶¶ 139–141).

Petitioner explains that cellular phone that present video were known and available at the time of the alleged invention. *Id.* (citing Ex. 1024, 1:15–17, 2:8–10, 5:8–11). Petitioner further asserts that use of a videophone provides advantages of having display capabilities, portability, and increased convenience. *Id.* at 12.

Patent Owner has not presented a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claim 10 would have been obvious over Menard.

G. *Alleged Obviousness of Claims 2–6, 13, and 18–20 over Menard and one or more of Vaios, Courtney, Knudson, Jacob, and Lands*

We address here the grounds listed in rows 3–8 of the Table appearing above in Section II.F.

1. *Overview of Vaios*

Vaios’s multi-access remote system is shown in Figure 1, which is reproduced below.

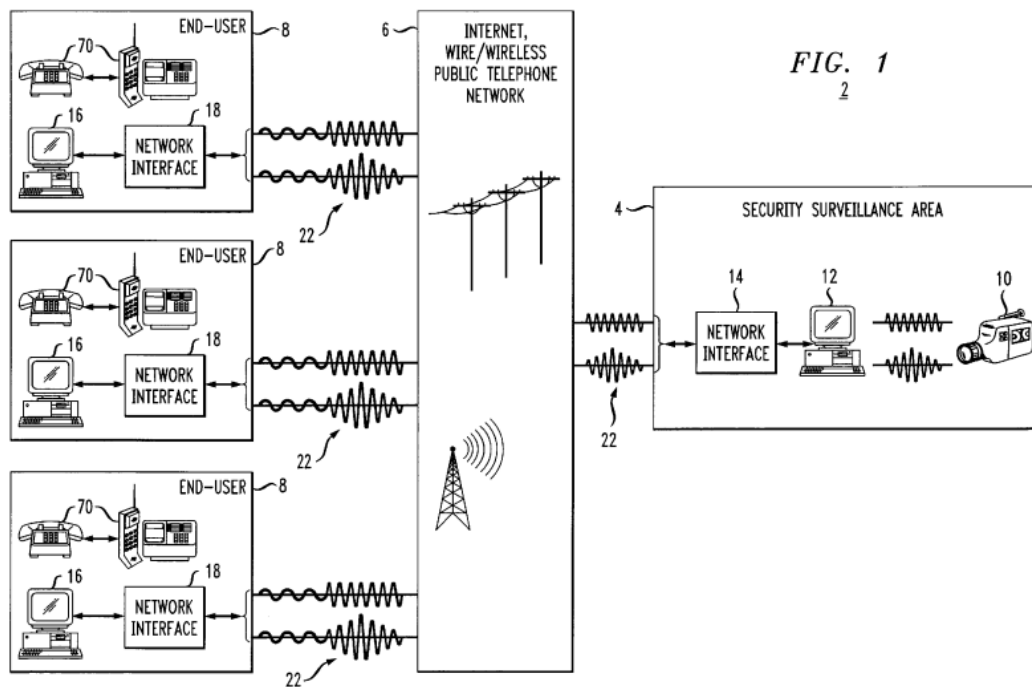


FIG. 1
2

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 and to video camera 10 having a motion sensor. *Id.* at 3:24–27.

Local computer system 12 is coupled to camera adapter 116 (Fig. 2) 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.* at 3:27–32. Local computer system 12 is also coupled to network interface 14 to use communication network 6 to establish connection 22 and communicate with one or more end user locations 8. *Id.* at 3:32–36. Local computer system 12 includes fixed storage means 109,

modem 110, operating system software 111, network adapter 112, and audio/video coder/decoder 114, an application programming interface module 131, and application software 136. *Id.* at 3:37–4:4.

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. *Id.* at 4:5–14. Remote computer systems 16 each comprise the same software and hardware computer components as local computer system 12. *Id.* at 4:15–17.

2. *Overview of Courtney*

Courtney discloses a monitoring apparatus including a video camera with a section that permits remote control of the video camera. Ex. 1010, code (57). A computer processes video images from the camera and integrates a processed image into a document in hypertext mark-up language format. *Id.* A portable unit is coupled to the computer through a wireless link, a cellular base station, a network, or telephone line. *Id.* An infrared sensor detects an event of interest in the monitoring area, and in response to such detection causes the computer to place a telephone call to the portable unit. *Id.* A user possessing the portable unit then uses the portable unit to access the document to observe or verify the detected event. *Id.*

3. *Overview of Knudson*

Knudson discloses a system and method of welcoming visitors to a business. Ex. 1022, code (57). The system includes a lobby video conferencing station and a plurality of receptionist video conferencing stations. *Id.* ¶ 22. Each of the receptionist video conferencing stations is remotely located from the lobby video conferencing station. *Id.* A receptionist positioned at a randomly selected one of the plurality of receptionist video conferencing stations initiates a video conferencing

session with the visitor via the lobby video conferencing station to welcome the visitor to the establishment. *Id.*

Knudson describes that the arrival of a visitor to the lobby triggers a visitor sensing device which is connected to the lobby video conferencing station. *Id.* ¶ 81. It is also described that the lobby video conferencing station then sounds an audible signal and leaves a wait state to display a static welcome image which includes a welcome greeting. *Id.* ¶¶ 80–81.

Following a short time delay after the audible signal is sounded, an audio greeting is played over a lobby audio output device to welcome the visitor to the business and to instruct the visitor to approach the lobby video conferencing station and use a mouse to click on a “Call” button shown on a lobby video output device. *Id.* ¶ 83. The system then checks to see which of a plurality of receptionist video conferencing stations are logged on and randomly selects one of the logged-on receptionist video conferencing stations to receive the request for a video conferencing session. *Id.* ¶ 86. Thereafter, the lobby video conferencing station places a call to the selected receptionist video conferencing station. *Id.*

4. *Overview of Jacob*

Jacob discloses a monitoring and detection system that continually monitors a person’s presence in areas such as rooms, homes, and buildings. Ex. 1023, code (57). The system includes a plurality of operating modes, such as a home mode for greeting visitors and normal facility users, and a secure mode for protecting the facility and its occupants from intruders. *Id.* The disclosed system uses audible greetings to welcome persons approaching homes and buildings. *Id.* Selected verbal communications can be input into the system for later playback. *Id.* A person passing through a monitored area may be directed to various points of interest. *Id.* In the

secure mode, verbal voice warnings as well as sirens, lights, and remote alarms, may be activated when intruders are detected. *Id.*

5. *Overview of Lands*

Lands discloses a voice recording system for storing data from a two-way conversation. Ex. 1014, code (57). The system includes a microphone, a speaker, an audio device, an audio transmission controller, a storage device, and a switching circuit. *Id.* The audio transmission controller has an input and an output coupled to the audio device and an input coupled to the microphone and an output coupled to the speaker. *Id.* The audio transmission controller provides a transmit detect signal, a receive detect signal and an idle detect signal in response to audio transmissions received at the audio transmission controller. *Id.* The switching unit is configured to store in the storage device only an active side of the conversation in response to the receive detect signal, the transmit detect signal and the idle detect signal. *Id.* Lands also describes that the digital audio device may be any appropriate source of digital audio data. *Id.* at 5:3–4.

6. *Discussion*

a) *Alleged Obviousness of Claims 2, 18, and 20 over Menard and Vaio*

Claim 2 depends from claim 1 and further recites: “wherein said transmitting includes wireless communications between both the camera and microphone located proximate the entrance and a computerized controller running a software application including a graphic user interface by which the audio-video communications between the first person and the second person are established.” Ex. 1001, 20:5–11. Petitioner accounts for the additional limitation of claim 2 by reliance on the disclosure of Vaio. Pet. 15–20.

Petitioner asserts as follows:

Vaios discloses a computerized controller (e.g., “local computer system 12”) that communicates with a camera and microphone at an entrance to facilitate wireless audio-video communications between a person at the entrance and a remote second person (e.g., users at “end user locations 8”). EX1003, 3:24–36, Fig. 1; EX1002, ¶¶ 172–175.

Pet. 16. Petitioner also identifies Vaios’s local computer system 1 as a “computerized controller running a software application.” *Id.* (citing Ex. 1002 ¶¶ 176–180). Petitioner further asserts that “[l]ocal computer system 12 provides a graphical user interface via which audio-video communications are established between a person at the entrance and a remote individual at end user locations 8.” *Id.* at 17 (citing Ex. 1002 ¶¶ 181–185).

Petitioner explains:

It was obvious to use a computerized controller (e.g., local computer system 12) and its graphical user interface as taught in Vaios to facilitate audio-video communications between Menard’s wireless exterior module 200D (and camera and microphone) and PDU 400. EX1002, ¶¶ 186–188. . . . Furthermore, the combination offered motivating advantages that were apparent to POSITAs at the time including improved aesthetics, ease of implementation and modification of a graphical user interface, lack of reliance on expensive specialized control hardware, and consistent and convenient control and direction of a surveillance system irrespective of the location of the user. *Id.*

Id. at 19–20. Petitioner’s assertions are supported by the cited evidence and are based on a rational underpinning, notwithstanding Patent Owner’s argument that Petitioner has not shown adequate motivation to combine the teachings of Menard and Vaios (PO Resp. 23–29) which we discuss below.

Claim 18 depends from claim 1 and further recites “further comprising remotely actuating the camera located proximate the entrance using the wireless handheld device.” Ex. 1001, 20:48–50.

Petitioner asserts that Vaios discloses an individual using remote wireless handheld device to actuate cameras 10. Pet. 10 (citing Ex. 1003, code (57), Ex. 1002 ¶¶ 192–195). Petitioner explains:

It was obvious in view of Vaios to remotely actuate Menard’s video camera 370 using PDUs 400 (which include wireless handheld devices). *Id.*, ¶¶ 201–204. . . . Indeed, the combination would have provided the motivating advantage of creating a more functional camera capable of actuation from remote locations at which a user is located when a person arrives at the monitored entrance. *Id.*

Id. at 21–22. Petitioner’s assertions are supported by the cited evidence and are based on a rational underpinning, notwithstanding Patent Owner’s argument that Petitioner has not shown adequate motivation to combine the teachings of Menard and Vaios (PO Resp. 23–29) which we discuss below.

Claim 20 depends from claim 18 and further recites “wherein said step of remotely actuating the camera includes remotely moving the camera to change the view of the camera.” Ex. 1001, 20:54–56.

Petitioner asserts that Vaios teaches the claimed manner of remotely actuating a camera. Pet. 24–25 (citing Ex. 1002 ¶¶ 214–216). Petitioner further asserts: “Vaios describes control icons used to remotely move and change a camera’s view such as ‘peak[sic] the camera downwards,’ ‘peak the camera upwards,’ and ‘rotate the camera.’” *Id.* at 25 (citing Ex. 1003, 8:1–8). Petitioner further asserts that it would have been obvious for one with ordinary skill in the art, in view of Menard and Vaios, “to remotely move Menard’s video camera 370 to change its view using PDU 400” to create a more functional camera capable of actuation from remote locations

at which a user is located when a person arrives at the monitored entrance.
Id. at 25 (citing Ex. 1002 ¶¶ 217–219).

Petitioner’s assertions are supported by the cited evidence and are based on a rational underpinning, notwithstanding Patent Owner’s argument that Petitioner has not shown adequate motivation to combine the teachings of Menard and Vaios (PO Resp. 23–29) which we discuss below.

Initially, Patent Owner argues that “Petitioner fails to identify with particularity in the Petition which elements are met by Menard versus Vaios and relies entirely on arguments in the expert’s declaration.” PO Resp. 23. The argument is without merit because the assertion is not true.

With respect to claim 2, the Petition states:

It was obvious to use a computerized controller (e.g., local computer system 12) and its graphical user interface as taught in Vaios to facilitate audio-video communications between Menard’s wireless exterior module 200D (and camera and microphone) and PDU 400. EX1002, ¶¶ 186–188. Incorporation of such features in Menard is simply a combination of known elements for performing their intended functions (Vaios’ local computer system and a graphical user interface) into Menard’s system.

Pet. 19. The above-quoted text makes amply clear what Petitioner relies on Vaios to teach and to incorporate into Menard’s system.

With respect to claim 18, the Petition states:

It was obvious in view of Vaios to remotely actuate Menard’s video camera 370 using PDUs 400 (which include wireless handheld devices). *Id.*, ¶¶ 201–204. Incorporation of such features in Menard is simply a combination of known elements performing their intended functions (Vaios’ remote actuation features) into Menard’s system.

Id. at 21. Also, in the paragraph immediately preceding the above-quoted text, the Petition notes that Vaios discloses “remote devices . . . by which a

remote user may observe audio-video data from cameras 10.” *Id.* These parts of the Petition make amply clear what Petitioner relies on Vaios to teach and to incorporate into Menard’s system.

With respect to claim 20, the Petition states:

Both Vaios and Courtney teach such a manner of remotely actuating a camera. EX1002, ¶¶214–216. Vaios describes control icons used to remotely move and change a camera’s view such as “peak [sic] the camera downwards,” “peak the camera upwards,” and “rotate the camera.” EX1003, 8:1–8.

Similarly, Courtney describes icons 81 or 82 which cause “the selected camera to tilt the orientation of the camera” up or down, respectively. EX1010, 6:4–17. Icons 83 or 84 cause the selected camera to be “adjusted respectively . . . right or left.” *Id.*, 6:15–17.

It was obvious in view of Vaios and/or Courtney to remotely move Menard’s video camera 370 to change its view using PDU 400 for at least the same reasons it was obvious to combine Courtney and/or Vaios with Menard as described above. EX1002, ¶¶ 217–219; *supra*, 21–24.

Pet. 24–25. The above-quoted text makes amply clear what Petitioner relies on Vaios to teach and to incorporate into Menard’s system.

Next, Patent Owner argues that Petitioner failed to explain how Menard and Vaios would be combined. PO Resp. 24. The argument is unavailing, because the above-quoted text from the Petition explains specifically how the teachings of Vaios would be combined with the system of Menard.

Then, Patent Owner argues that Petitioner’s combination of teachings from Menard and Vaios is improper because it “destroys many key features and indeed the very operation of Vaios.” *Id.* The argument is unavailing for two reasons. First, Patent Owner does not explain what features of Vaios are supposedly destroyed by Petitioner’s proposed combination, and how.

Second, as discussed above, Petitioner has proposed to incorporate Vaios's disclosed remote access and control features into Menard's system, which yields a modification of the system and operation of Menard, not Vaios. Petitioner has not proposed to modify anything in Vaios, and thus nothing in Vaios is destroyed by Petitioner's proposed modification of Menard to incorporate features from Vaios. Petitioner characterizes Patent Owner's "destroying" Vaios argument as "nonsensical and irrelevant." Reply 13. For reasons explained above, we agree.

Patent Owner further argues that Petitioner failed to explain why Menard and Vaios would be combined, that the proposed combination is based on improper hindsight in light of the '183 patent, and that the Petition merely states in a conclusory manner that the proposed combination would have been obvious without providing any explanation or reasoning. PO Resp. 24–25. The arguments are unavailing. As discussed below, we find that Petitioner did not fail to explain why Menard and Vaios would be combined, did not rely on improper hindsight in light of the disclosure of the '183 patent, and did not only state mere conclusions without explanation and reasoning.

Specifically, Petitioner explains in sufficient detail, in a non-conclusory manner, and without hindsight, why one of ordinary skill in the art would have combined the teachings of Menard and Vaios, as follows:

It was obvious to utilize a computerized controller (e.g., local computer system 12) and its graphical user interface as taught in Vaios to facilitate audio-video communications between Menard's wireless exterior module 200D (and camera and microphone) and PDU 400. EX1002, ¶¶ 186–188. Incorporation of such features in Menard is simply a combination of known elements performing their intended functions (Vaios' local computer system and graphical user interface) into

Menard's system. *Id.* The combination would have been accomplished using known methods and would yield predictable results having a reasonable expectation of success given that similar system resources (including the software, system components, and network infrastructure) used in Menard could have been utilized to incorporate these features into its system. *Id.* Given the proficiency of POSITAs at the time at utilizing communication networks to implement software and graphical user interfaces at remote locations, the proposed combination would involve minimal engineering complexity and could have been easily and predictably implemented. *Id.* Furthermore, the combination offered motivating advantages that were apparent to POSITAs at the time including improved aesthetics, ease of implementation and modification of a graphical user interface, lack of reliance on expensive specialized control hardware, and consistent and convenient control and direction of a surveillance system irrespective of the location of the user. *Id.*

Pet. 19–20.

As the above-quoted text plainly indicates, Petitioner has provided more than merely a conclusion that one with ordinary skill in the art would have combined the teachings of Menard and Vaios. Rather, Petitioner provides multiple reasons and explains why one of ordinary skill in the art would have done so, i.e., (1) improved aesthetics; (2) ease of implementation and modification of a graphical user interface; (3) lack of reliance on expensive specialized control hardware; and (4) consistent and convenient control and direction of a surveillance system irrespective of the location of the user. *Id.* It is misplaced for Patent Owner not to recognize these stated reasoning of Petitioner, particularly where, as here, Patent Owner does not dispute that they all do yield advantages for combining Menard and Vaios the way Petitioner proposes.

Regarding alleged reliance by Petitioner on improper hindsight, Patent Owner does not identify where in the '183 patent is there a description of

any one of these benefits to be obtained by including the pertinent claimed features at issue. Even if the '183 patent describes an advantage to be achieved, that does not necessarily mean Petitioner or its expert learned of that benefit by reading the '183 patent. For instance, Petitioner asserts that “these specific advantages of a graphical user interface and its use in a monitoring system are further demonstrated by Vaios.” Reply 18 (citing Ex. 1003, Fig. 3). Figure 3 of Vaios is reproduced below:

FIG. 3

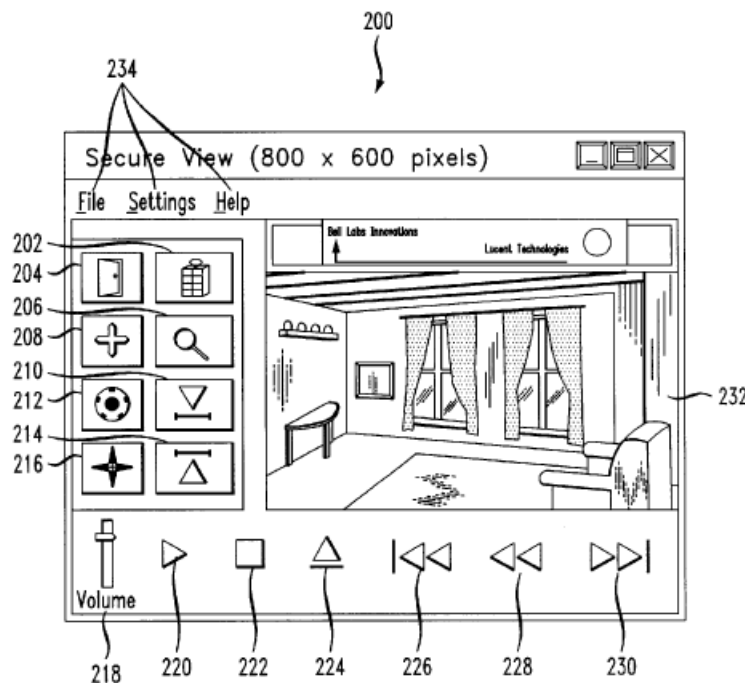


Figure 3 illustrates a browser application display screen according to an embodiment of Vaios. Ex. 1003, 3:5–6. Given the level of ordinary skill in the art, at least some of the advantages, e.g., aesthetics and ease of use and modification, would appear to be self-evident to one of ordinary skill in the art in view of Figure 3 of Vaios. Furthermore, as an expert witness, Dr. Hochwald may testify to what, in his opinion, one of ordinary skill in the art would have known, without citing to documentary evidence that say the

same. These stated advantages are not the type that require underlying experimental data to ascertain. Rather, they are high level appreciations and recognitions of an ordinarily skilled artisan, which an expert witness may know simply based on his or her knowledge and experience in the art. For the foregoing reasons, we do not find that Petitioner relied on improper hindsight to support combining the teachings of Menard and Vaios.

Patent Owner faults Dr. Hochwald, Petitioner's witness, for testifying to essentially the same as what Petitioner states in the Petition. PO Resp. 26–27. But there is nothing wrong with an expert's testimony being essentially the same as what Petitioner contends in the Petition. We do not accord the expert testimony little or no weight simply because it is verbatim to what Petitioner states in the Petition. The precedential decision of the Board in *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 (PTAB Aug. 24, 2022), does not indicate otherwise. The problem, if any, is with conclusory testimony. *Id.* at 15–17 (noting that the deficiencies with expert testimony are that they are conclusory and lacking supporting evidence or technical reasoning.). For the same or similar reasons we do not regard Petitioner's assertions to be merely conclusory, as discussed above, similar testimony from Dr. Hochwald is also not conclusory. For completeness and ease of reference, we reproduce the pertinent testimony of Dr. Hochwald below:

186. It further would have been obvious to a POSITA at the time of the alleged invention for Menard's system to include a centralized computer (such as local computer system 12 of Vaios) and its provided graphic user interface to enable the users of Menard's system to observe video/audio from the entrance and communicate with a visitor at the entrance using PDU 400. This would have simply amounted to a combination of local computer system 12 (and its software, including that which the

graphical user interface) with Menard's system. Since Menard teaches and uses suitable networks (including wireless, Bluetooth, satellite, cellular, PSTN, short-range, long-range, etc.) analogous to those used in Vaios and similar infrastructure (see, e.g., EX1004, 15:31–19:22), a POSITA would have readily recognized that such a combination would have been easily and predictably implemented, particularly given the proficiency at the time that POSITAs had at implementing communication networks amongst computing components and implementing software applications/APIs (and corresponding graphical user interfaces) across such networks.

187. The use of a graphical user interface was becoming standardized at the time of the alleged invention (e.g., circa 2000) because of the computational and graphical power available, the ease of implementation and modification of such an interface, and its lack of reliance on expensive specialized control hardware such as switches, dials, and slider controls can make it the preferred route. Indeed, a POSITA would have understood Menard to already teach the user of a graphical user interface (in that its PDUs allow a user to view and communicate with a visitor at the entrance and solicit commands for actuating the deadbolt 275 – see EX1004, 21:20–27). Thus, a POSITA would have understood this combination of Vaios and Menard to have a high expectation of success when utilizing a graphical user interface. Indeed, the ability to observe audio and video, and submit commands would have been naturally implemented with such an interface. A POSITA would also understand that such a graphical user interface would advantageously be made available to the local and remote user equally. Such an interface would allow consistent and convenient control and direction of the surveillance system irrespective of the location of the user.

188. A POSITA would be motivated to use a graphic user interface as described in Vaios, and to combine these teachings with Menard, because such interfaces were widely used for their improved aesthetics (as compared to non-graphical interfaces), flexibility, adaptability to new features, ease of use, and durability (lack of moving parts). The ease of incorporating such an interface into a browser application through the use of scripting language and plugins with a computerized controller

was well established at the time, and the developer would have reasonable expectation of success.

Ex. 1002 ¶¶ 186–188. The above-quoted testimony is not merely conclusory, with respect to motivation to combine things, predictable results, and reasonable expectation of success. There is plainly stated reasoning behind all of those subjects.

For the foregoing reasons, Petitioner has proven by a preponderance of the evidence that claims 2, 18, and 20 would have been obvious over Menard and Vaios.

b) Alleged Obviousness of Claims 18, 19, and 20 over Menard and Courtney

Petitioner asserts that each of claims 18, 19, and 20 would have been obvious over Menard and Courtney. Pet. 22, 24, 25.

Claim 18 depends from claim 1 and further recites “further comprising remotely actuating the camera located proximate the entrance using the wireless handheld device.” Ex. 1001, 20:48–50.

According to Petitioner, Courtney discloses monitoring apparatus 10 including video camera 12 with section 16 that permits remote control of a camera. Pet. 22 (citing Ex. 1010, code (57), Fig. 1). Also according to Petitioner, Courtney discloses that portable unit 46 is used to control remotely the video camera. *Id.* at 23. Petitioner also cites to Figure 3 of Courtney as showing an example of a display of portable unit 46, which has icons thereon associated with camera control functions. *Id.*

Petitioner asserts that “[i]t was obvious in view of Courtney to remotely actuate video camera 370 of Menard’s exterior module 200D using PDU 400” to create a more functional camera capable of actuation from remote locations at which a user is located when a person arrives at the monitored entrance. *Id.* at 23 (citing Ex. 1002 ¶¶ 201–204). Petitioner’s

assertions are supported by the cited evidence and are based on a rational underpinning.

Patent Owner does not present any argument additional to or separate from those it presents for claim 1 over Menard alone, which we have already addressed above.

Claim 19 depends from claim 18 and further recites “wherein said step of remotely actuating the camera includes zooming an image of the first person at the entrance.” Ex. 1001, 20:51–53.

According to Petitioner, Courtney discloses icons 85 and 86 which cause the zoom lens assembly in selected video camera 12 or 13 to increase or decrease its magnification level. Pet. 24 (citing Ex. 1010, 6:18–29). Petitioner asserts that “[i]t was obvious to include these zoom features when modifying Menard’s system to enable remote actuation of video camera 370 using PDU 400 as discussed above” to facilitate close-up views of monitored area and to enable better identification and analysis of individuals in the monitored area. *Id.* Petitioner’s assertions are supported by the cited evidence and are based on a rational underpinning.

Patent Owner does not present any argument additional to those it presents for claim 1 over Menard alone, which we have already addressed above.

Claim 20 depends from claim 18 and further recites “wherein said step of remotely actuating the camera includes remotely moving the camera to change the view of the camera.” Ex. 1001, 20:54–56.

According to Petitioner, Courtney teaches this manner of remotely actuating a camera. Pet. 24–25 (citing Ex. 1002 ¶¶ 214–216). Petitioner asserts that Courtney describes use of icons 81 and 82 which cause the selected camera to tilt the orientation of the camera up or down. *Id.* at 25

(citing Ex. 1010, 6:4–17). Petitioner also asserts that icons 83 and 84 of Courtney cause the selected camera to be adjusted right or left. *Id.* (citing Ex. 1010, 6:15–17).

Petitioner further asserts that it would have been obvious to one with ordinary skill in the art, in light of Courtney, “to remotely move Menard’s video camera 370 to change its view using PDU 400” to create a more functional camera capable of actuation from remote locations at which a user is located when a person arrives at the monitored entrance. *Id.* at 25 (citing Ex. 1002 ¶¶ 217–219). *Id.* Petitioner’s assertions are supported by the cited evidence and are based on a rational underpinning.

Patent Owner does not present any argument additional to those it presents for claim 1 over Menard alone, which we have already addressed above. Petitioner has proven by a preponderance of the evidence that claims 18, 19, and 20 would have been obvious over Menard and Courtney.

c) *Alleged Obviousness of Claims 18, 19, and 20*
over Menard, Vaios, and Courtney

Petitioner’s assertions of obviousness of claims 18, 19, and 20 over Menard, Vaios, and Courtney is largely a reiteration of its assertion of obviousness of these claims over Menard and Vaios and over Menard and Courtney. Pet. 21–25. Petitioner essentially is asserting that because the claims would have been obvious over Menard and Vaios and also over Menard and Courtney, they also would have been obvious over Menard, Vaios, and Courtney. Under this rationale, the stated motivations to combine Menard and Vaios do not change even if Menard is already combined with Courtney, and the stated motivations to combine Menard and Courtney do not change even if Menard is already combined with Vaios.

Patent Owner does not present any argument additional to those it presents for claims 18–20 as obvious over Menard and Vaio or over Menard and Courtney, which we have already addressed above. Petitioner has proven by a preponderance of the evidence that claims 18, 19, and 20 would have been obvious over Menard, Vaio, and Courtney.

*d) Alleged Obviousness of Claims 3,
4, and 5 over Menard and Knudson*

Claim 3 depends from claim 1 and further recites “further comprising the step of playing a recorded greeting to the first person at the entrance upon the detection of the first person at the entrance.” Ex. 1001, 20:12–14.

Petitioner asserts that Knudson discloses video sensing device 120 which detects the presence of a visitor in the lobby and that upon detection of a visitor Knudson’s system plays a recorded audio greeting to welcome the visitor. Pet. 26 (citing Ex. 1022 ¶¶ 47, 48, 76, 78, 91; Ex. 1002 ¶¶ 224–228). Petitioner further asserts that it would have been obvious to one with ordinary skill in the art to have played in Menard’s system a recorded greeting as taught by Knudson, to enable “a property owner to convey additional information to a visitor upon the visitor’s approach to a property to influence the visitor’s actions including providing warnings or instructions.” *Id.* at 26–27 (citing Ex. 1002 ¶¶ 229, 230; Ex. 1023, 2:41–51).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present any argument additional to those it presents for claim 1 over Menard alone, which we have already addressed above.

Claim 4 depends from claim 3 and further recites “further comprising determining, by a user with a remote peripheral device, the recorded greeting that is played through a graphical user interface.” *Id.* at 20:15–17.

Petitioner asserts that in Knudson’s system, an administrator selects a recorded greeting through “configure form 420” which is a graphical user interface. Pet. 27–28 (citing Ex. 1002 ¶¶ 233–236; Ex. 1022 ¶¶ 135–137, Fig. 9). Petitioner asserts that it would have been obvious to one with ordinary skill in the art to have Menard’s system modified to allow a user to select greetings in the manner taught by Knudson to enable “a property owner to customize the greetings presented to visitors to suit their needs and influence visitor actions.” *Id.* at 29–30 (citing Ex. 1002 ¶¶ 240–244; Ex. 1022 ¶ 135).

Petitioner also asserts that it would have been obvious to one with ordinary skill in the art to determine recorded greetings by using Menard’s PDUs 400 which are peripheral devices, because Menard teaches that various system control and administrative functions are performed from PDUs 400 via a user interface. *Id.* at 30 (citing Ex. 1002 ¶¶ 241–243; Ex. 1004, 22:1–3, 20:28–31, 22:9–10). Petitioner further asserts that it would have been obvious to one with ordinary skill in the art to perform the determining operation in Menard by use of the graphical user interface of the PDU 400, because such use would have provided more pleasing aesthetics, ease of implementation and modification, and lack of reliance on expensive specialized control hardware. *Id.* at 30–31 (citing Ex. 1002 ¶¶ 242–243).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present any argument additional to those it presents for claim 1 over Menard alone, which we have already addressed above.

Claim 5 depends from claim 4 and further recites “wherein the recorded greeting is selected by the user from a plurality of recorded greetings.” *Id.* at 20:18–19.

Petitioner asserts that Knudson’s configuration form 420 “allows selection from amongst a plurality of recorded greetings using the ‘Browse’ icon.” Pet. 31 (citing Ex. 1002 ¶¶ 246, 247; Ex. 1022 ¶¶ 137, 138; Fig. 9). Petitioner further asserts that it would have been obvious to one with ordinary skill in the art to incorporate in Menard’s system Knudson’s manner of determining recorded greetings, to enable a property owner “to customize the greetings presented to visitors to suit their needs by providing the owner with multiple options to choose from for those purposes.” *Id.* at 32 (citing Ex. 1002 ¶ 248; Ex. 1022 ¶ 135).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present any argument additional to those it presents for claim 1 over Menard alone, which we have already addressed above. Petitioner has proven by a preponderance of the evidence that claims 3, 4, and 5 would have been obvious over Menard and Knudson.

*e) Alleged Obviousness of Claim 6
Over Menard, Knudson, and Jacob*

Claim 6 depends from claim 4 and further recites “wherein the recorded greetings are seasonal greetings.” Ex. 1001, 20:20–21.

Petitioner asserts that Jacob teaches a system for greeting visitors which uses audible greetings to welcome people approaching homes. Pet. 32–33 (citing Ex. 1023, code (57)). Petitioner further asserts that Jacob’s greetings includes seasonal greetings. *Id.* at 33 (citing Ex. 1023, 9:38–44). Petitioner further asserts that it would have been obvious to one with ordinary skill in the art to constitute Knudson’s recorded greetings (incorporated into Menard) as seasonal greetings as taught by Jacob, to obtain the benefit of customizable season-specific greetings. *Id.* (citing

Ex. 1002 ¶¶ 251–252. Petitioner’s assertions are supported by the cited evidence and have a rational underpinning.

Patent Owner does not present any argument additional to those it presents for claim 1 over Menard alone, which we have already addressed above. Petitioner has proven by a preponderance of the evidence that claim 6 would have been obvious over Menard, Knudson, and Jacob.

*f) Alleged Obviousness of Claim 13
over Menard and Lands*

Claim 13 depends from claim 1 and further recites “further comprising the step of saving a recording of the two-way audio-communications in a database for later playback.” Ex. 1001, 20:35–37. Petitioner asserts that Lands discloses voice processing circuit 100 which records two-way audio-communications between digital audio device 102, e.g., a cellular telephone, and a remotely located speaker 150/microphone 160 in digital storage device 110 which is equivalent to a database. Pet. 33–34 (citing Ex. 1002 ¶¶ 257–258, Ex. 1014, 2:27–3:30, 4:29–30).

Petitioner further asserts that it would have been obvious to one with ordinary skill in the art to save a recording of the two-way audio-communication of Menard in a database as taught by Lands. Pet. 34 (citing Ex. 1002 ¶¶ 260–261). Petitioner explains that this proposed combination offers advantages including allowing for later review/playback of the recordings. *Id.* at 35 (citing Ex. 1002 ¶¶ 260–261).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present any argument additional to those it presents for claim 1 over Menard alone, which we have already addressed above. Petitioner has proven by a preponderance of the evidence that claim 13 would have been obvious over Menard and Lands.

7. Conclusion

Petitioner has proven, by a preponderance of the evidence, that: claims 2, 18, and 20 would have been obvious over Menard and Vaios; claims 18, 19, and 20 would have been obvious over Menard and Courtney; claims 18, 19, and 20 would have been obvious over Menard, Vaios, and Courtney; claims 3, 4, and 5 would have been obvious over Menard and Knudson; claim 6 would have been obvious over Menard, Knudson, and Jacob; and claim 13 would have been obvious over Menard and Lands.

H. Alleged Anticipation of Claims 1, 3, 4, 9, 10, 12, and 14–16 by Jae

1. Overview of Jae

Jae teaches a remote access security system that embodies a bidirectional conversation using an audio/video transmitting and receiving function of a mobile phone. Ex. 1011, code (54). When a visitor calls by using the audio/video transmission/reception function of the mobile phone, the mobile phone is automatically connected to realize a two-way conversation. *Id.*

Figure 1 of Jae is reproduced below:

FIG. 1

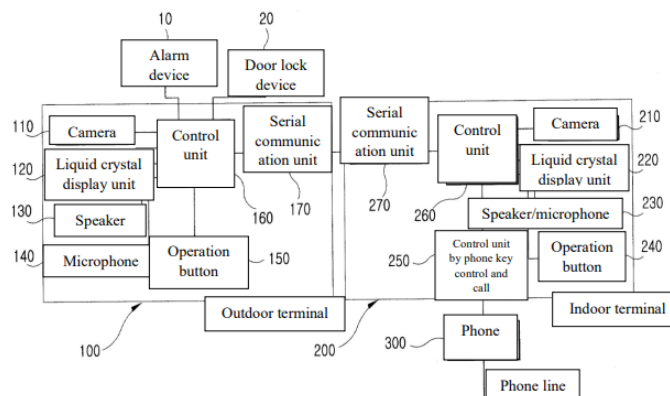


Figure 1 illustrates a remote access monitoring system that comprises outdoor terminal 100 for visitors. *Id.* at 4:3–4. Terminal 100 is installed on

a door and equipped with camera 100, liquid crystal display unit 120, speaker 130, microphone 140 and various operation buttons 150, to enable visitors to make calls and realize audio and video calls, and to remotely control the door alarm system and door lock device by controlling the user's mobile phone or indoor terminal. *Id.* at 4:3–7.

Figure 2 of Jae is reproduced below:

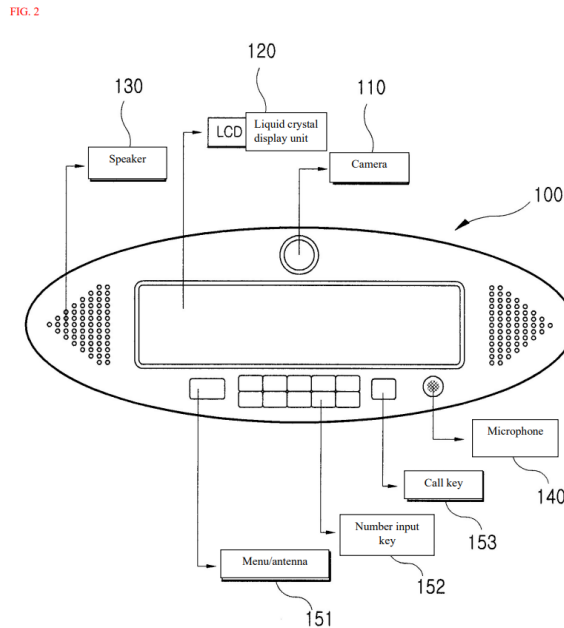


Figure 2 shows an external configuration diagram of outdoor terminal 100. *Id.* at 4:11. Outdoor terminal 100 comprises camera 110 for taking an image of a visitor, liquid crystal display 120 for displaying indoor terminal 200 or a pre-stored image or text message, speaker 130 and microphone 140 for making an audio call. *Id.* at 4:12–14.

Figure 3 of Jae is reproduced below:

FIG. 3

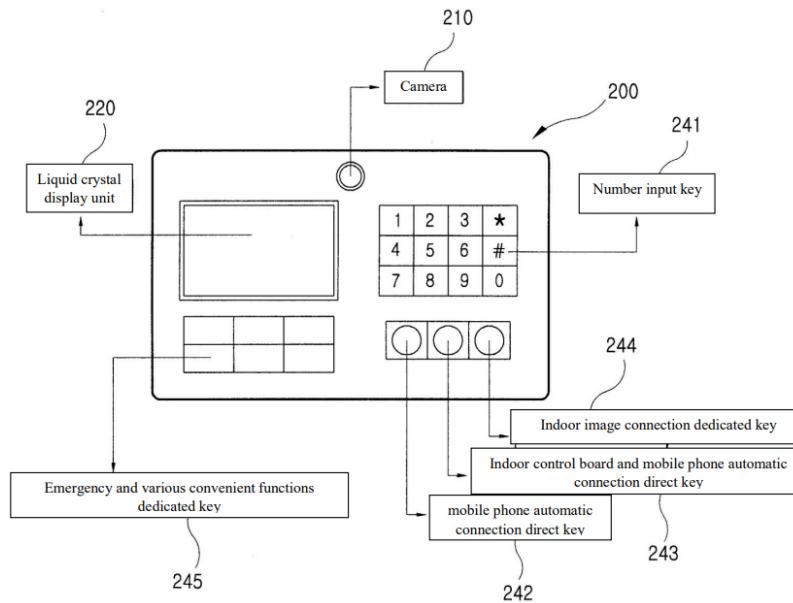


Figure 3 shows a front panel configuration diagram of indoor terminal 200. *Id.* at 4:11–12. Indoor terminal 200 comprises camera 210 for two-way image transmission with outdoor terminal 100, liquid crystal display unit 220 for displaying images and text messages transmitted from outdoor terminal 100, and speaker/microphone 230 for audio calls. *Id.* at 4:20–23.

Indoor terminal 200 and outdoor terminal 100 may operate as a general intercom function. *Id.* at 6:30. When the visitor presses the call button, the image captured by camera 110 of outdoor terminal 100 is displayed on liquid crystal display 220 of indoor terminal 200, so that audio conversation through the speaker/microphone is made possible. *Id.* at 6:31–32. Speaker/microphone 230 of indoor terminal 200 may be used as a handset of a telephone, and may be separately equipped to operate with the same function as a general intercom or a speakerphone of a telephone. *Id.* at 6:33–35.

If the user makes a phone connection to a phone built-in or external to indoor terminal 200 or if the user's mobile phone and outdoor terminal 100 are connected by a call of outdoor terminal 100, camera 110, microphone 140, and speaker 130 installed in outdoor terminal 100 are driven to enable audio calls and transmit the images captured by camera 110 to the mobile phone in real time. *Id.* at 6:3–6. Real-time transmission of such moving images may allow the controller to process and transmit the images of camera 110, and that is achieved by allowing the controller of indoor terminal 200 to transmit the video to the mobile phone by processing the video signal in the same way as the PC's Internet phone (video phone). *Id.* at 6:6–8. Indoor terminal 200 can be connected to a PC and configured as a home automation device that provides audio/video call and various control functions. *Id.* at 6:3–10. Jae states: “The present invention is a remote control security system that enables a two-way audio/video conversation with a visitor by automatically connecting a phone call to the user's (access controller's) mobile phone when a visitor calls.” *Id.* at 3:31–32.

2. *Independent Claim 1*

Claim 1 begins with this preamble: “A method for two-way audio-video communications between a first person at an entrance and a second person.” Ex. 1001, 19:44–47. Petitioner asserts that Jae discloses a remote access security system, composed of an outdoor terminal for visitors, installed at the entrance door, equipped with a camera, a liquid crystal display screen, a speaker, a microphone, and various operation buttons to enable the visitor to make audio and video calls. Pet. 35 (citing Ex. 1011, code (57)). Petitioner also asserts that Jae discloses that its system enables a two-way audio/video conversation between the visitor and a user by automatically connecting the visitor's call at the entrance to the user's

mobile phone. *Id.* at 35–36 (citing Ex. 1011, 3:1–20, 3:31–32). Petitioner’s assertions are supported by the cited evidence. Patent Owner does not present a contrary argument. Petitioner has shown that Jae discloses this preamble recitation. We need not decide whether this preamble recitation is limiting.

Step 1(a) recites “detecting the presence of a first person at the entrance.” Ex. 1001, 19:48–49. Petitioner asserts that Jae discloses this limitation with outdoor terminal 100 having call key 152 (or “call button”). Pet. 36. Petitioner asserts that when the visitor presses the call button on outdoor terminal 100, the call request is transmitted to indoor terminal 200 and the indoor terminal makes a call connection to the mobile phone by a preset mode. *Id.* at 37 (citing Ex. 1011, 5:7–8). Petitioner asserts that Jae thus detects the presence of a first person, e.g., the visitor, at the entrance responsive to the person pressing call key 153, i.e., the call button. *Id.* (citing Ex. 1002 ¶¶ 268–269). According to Petitioner, pressing of the call button is indicative of a person’s presence at the entrance where outdoor terminal 100 is positioned. *Id.* (citing Ex. 1002 ¶ 269).

Petitioner’s assertions are supported by the cited evidence. Patent Owner does not present a contrary argument. Petitioner has shown that Jay discloses Step 1(a).

Step 1(b) recites “following detection of the presence of the first person at the entrance, providing real time audio-video communications between the first person at the entrance and a second person using a wireless handheld device by.” Ex. 1001, 19:49–52. Petitioner asserts that Jae discloses that when a visitor presses the call button of outdoor terminal 100, the visitor is automatically connected to the mobile phone of a designated user to enable a remote audio visual conversation. Pet. 37–38 (citing

Ex. 1011, 7:23–24). Petitioner asserts that the user’s mobile phone is a wireless handheld device. *Id.* at 38 (citing Ex. 1002 ¶ 274). Also, according to Petitioner, Jae teaches that these conversation are “real time,” because Jae states that the system enables audio calls and transmits images captured by camera 110 to the mobile phone “in real time.” *Id.* (citing Ex. 1011, 6:3–6). Further, Petitioner states that to facilitate an acceptable conversation, the communication must be in real time. *Id.* (citing Ex. 1002 ¶ 274).

Petitioner’s assertions are supported by the cited evidence. Patent Owner does not present a contrary argument. Petitioner has shown that Jay discloses Step 1(b).

Step 1(b)(i) recites “transmitting, to the wireless handheld device of the second person, video of the first person at the entrance recorded using a camera located proximate the entrance.” Ex. 1001, 19:53–56. Petitioner asserts that Jae’s outdoor terminal 100 is located at an entrance door and is used for taking an image of a visitor. Pet. 38–39 (citing Ex. 1011, 4:13, code (57)). Petitioner further asserts that Jae discloses transmitting to the mobile phone of a user a video of the visitor at the entrance as recorded by camera 110 of outdoor terminal 100. Pet. 39 (citing Ex. 1002 ¶¶ 278–280, Ex. 1011, 3:29–30, 7:29–31).

Petitioner’s assertions are supported by the cited evidence. Patent Owner does not present a contrary argument. Petitioner has shown that Jae discloses Step 1(b)(i).

Step 1(b)(ii) recites “transmitting, to the wireless handheld device of the second person, audio of the first person at the entrance recorded using a microphone located proximate the entrance.” Ex. 1001, 19:57–60. Petitioner asserts that the image and audio transmitted to the user’s mobile

phone are obtained by the camera and microphone attached to the top of “outdoor terminal 100.” Pet. 40 (citing Ex. 1011, 7:29–32).

Petitioner’s assertions are supported by the cited evidence. Patent Owner does not present a contrary argument. Petitioner has shown that Jae discloses Step 1(b)(ii).

Step 1(b)(iii) recites “transmitting, to a speaker located proximate the entrance for playing to the first person at the entrance, audio of the second person recorded using the wireless handheld device.” Ex. 1001, 20:1–4. Petitioner asserts that when the visitor presses the call button, outdoor terminal 100 it is automatically connected to the user’s mobile phone and the user’s audio communication is transmitted to and played on speaker 130 in outdoor terminal 100. Pet. 41 (citing Ex. 1002 ¶¶ 288–291; Ex. 1011, 3:29–30, 6:3–5, 7:29–32).

Petitioner’s assertions are supported by the cited evidence. Patent Owner does not present a contrary argument. Petitioner has sufficiently shown that Jae discloses Step 1(b)(iii).

Petitioner has proven by a preponderance of the evidence that claim 1 is anticipated by Jae.

3. *Dependent Claims 3, 4, 9, 10, 12, and 14–16*

Claims 3, 4, 9, 10, 12, and 14–16 each depend, directly or indirectly, from claim 1. Petitioner accounts for the additional limitations of these dependent claims. Pet. 42–49. Petitioner’s assertions are supported by the cited evidence. Patent Owner does not present a contrary argument in that regard. Petitioner has shown that Jae discloses all of the additional limitations of each of claims 3, 4, 9, 10, 12, and 14–16.

Petitioner has proven by a preponderance of the evidence that each of claims 3, 4, 9, 10, 12, and 14–16 is anticipated by Jae.

I. Alleged Obviousness of Claims 1, 3, 4, 9, 10, 12, and 14–16 over Jae and Menard

The only difference we find in Petitioner’s assertion of anticipation of claims 1, 3, 9, 12, and 14–16 by Jae and the assertion of obviousness of these same claims over Jae and Menard relates to Step 1(a). Step 1(a) recites “detecting the presence of a first person at the entrance.” Ex. 1001, 19:48–49.

Petitioner asserts as follows: “Alternatively [as compared to Jae disclosing the limitation], it was obvious in view of Menard to detect the presence of a person using the camera of Jae’s outdoor terminal 100 (e.g., via motion detection), as explained in more detail for claim 21 (*infra*, 60–61).” Pet. 37 (citing Ex. 1002 ¶ 270). Petitioner explains that Menard discloses using video camera 370 located proximate the entrance as a proximity sensor to detect the arrival at the entrance of a visitor. Pet. 60 (citing Ex. 1002 ¶¶ 400, 401; Ex. 1004, 21:14–18). Petitioner asserts that it would have been obvious to one with ordinary skill in the art to use, as Menard does, a camera at the entrance, to detect the presence of a person at the entrance. *Id.* at 61. Petitioner explains that such use would have enabled “detection of a person at the entrance without any required action of the person, thereby providing increased security and corresponding notifications to a remote user, and triggering corresponding actions, further conserving system resources.” *Id.* (citing Ex. 1002 ¶¶ 402–404; Ex. 1003, code (57); Ex. 1004, 4:16–18, 30:22–25).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a contrary argument in this regard. Petitioner has proven by a preponderance of the evidence that claims 1, 3, 9, 12, and 14–16 would have been obvious over Jae and Menard.

Claim 4 depends from claim 3 and further recites “further comprising determining, by a user with a remote peripheral device, the recorded greeting that is played through a graphical user interface.” Ex. 1001, 20:15–17.

We already determined above that Petitioner has shown that Jae discloses this additional limitation of claim 4. Alternatively, Petitioner asserts that it would have been obvious to one with ordinary skill in the art “to use a graphical user interface to present messages/greetings from the user given the generally standardized and prolific usage of such interfaces at the time and the aesthetic and functional benefits provided by such interfaces. Pet. 43 (citing Ex. 1002 ¶ 298).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a contrary argument in this regard. Petitioner has proven by a preponderance of the evidence that claim 4 would have been obvious over Jae and Menard.

Claim 10 depends directly from claim 1 and recites “the wireless handheld comprises a video phone.” Ex. 1001, 20:29–30.

We already determined above that Petitioner has shown that Jae discloses this additional limitation of claim 10. Here, Petitioner argues, in the alternative, that it would have been obvious to one with ordinary skill in the art to use a video phone in the manner as claimed. Pet. 11, 12, 46 (citing Ex. 1002 ¶¶ 139–141, 307).

Petitioner asserts that Jae discloses transmission of video to a mobile phone. Pet. 45–46 (citing Ex. 1011, 6:6–8). Petitioner asserts that a cellular phone that presents video is a video phone and that video phones were known and available devices at the time of the alleged invention. *Id.* at 11 (citing Ex. 1024, 1:15–17, 2:8–10, 5:8–11). Petitioner asserts that one with ordinary skill in the art would have known that using a video phone provides

the advantages of providing video display capabilities, portability, and increased convenience. *Id.* at 12 (citing Ex. 1002 ¶ 246; Ex. 1003, 6:54–57; Ex. 1004, 1:26–28, 19:9–20).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not presented a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claim 10 would have been obvious over Jae and Menard.

J. Alleged Obviousness of Claims 2–6, 11, 13, and 18–20 over Jae and one or more of Vaios, Courtney, Knudson, Jacob, Menard, and Lands

We address here the grounds listed in rows 11–19 of the Table appearing above in Section II.F.

1. Alleged Obviousness of Claims 2, 18, and 20 over Jae and Vaios

Claim 2 depends from claim 1 and further recites: “wherein said transmitting includes wireless communications between both the camera and microphone located proximate the entrance and a computerized controller running a software application including a graphic user interface by which the audio-video communications between the first person and the second person are established.” Ex. 1001, 20:5–11. Petitioner accounts for the additional limitation of claim 2 by reliance on the disclosure of Vaios. Pet. 50–54.

First, Petitioner asserts that Jae discloses wireless communication between the camera and microphone of outdoor terminal 100 located proximate to an entrance and a mobile phone of a user. Pet. 50 (citing Ex. 1002 ¶ 331, Ex. 1011, 8:13–16). Second, Petitioner asserts that Vaios discloses a computerized controller (local computer system 12) that communicates with a camera and microphone at an entrance to enable

communication between a first person at the entrance and a remote second person. *Id.* at 52 (citing Ex. 1002 ¶¶ 176–179; Ex. 1003, 3:27–36, 3:44–48, 8:59–62). Third, Petitioner asserts that the computerized controller of Vaios makes use of a graphical user interface via which communication is established between a person at the entrance and a person at a remote location. *Id.* at 17 (citing Ex. 1002 ¶¶ 181–185). Fourth, Petitioner asserts that it would have been obvious to one with ordinary skill in the art to use Vaios’s computerized controller with a graphical user interface to facilitate audio-video communications between Jae’s outdoor terminal 100 (including its camera and microphone) and mobile phone. Pet. 54 (citing Ex. 1002 ¶¶ 347–350).

Among the motivation identified by Petitioner for one with ordinary skill in the art to combine such teachings are “improved aesthetics, ease of implementation and modification of a graphical user interface, lack of reliance on expensive specialized control hardware, and consistent and convenient control and direction of a surveillance system irrespective of the location of the user.” Pet. 20.

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning, notwithstanding Patent Owner’s argument that Petitioner has not shown adequate motivation to combine the teachings of Jay and Vaios (PO Resp. 29–36) which we discuss below.

With respect to claims 18 and 20, Petitioner relies on the disclosure of Vaios the same way it does for the alleged obviousness of claims 18 and 20 over Menard and Vaios, and combines the teachings of Vaios with Jae the same way it proposes to combine the teachings of Vaios with Menard as discussed above. Pet. 55–56.

Petitioner's assertions are supported by the cited evidence and have a rational underpinning, notwithstanding Patent Owner's argument that Petitioner has not shown adequate motivation to combine the teachings of Jay and Vaios (PO Resp. 29–36) which we discuss below.

Initially, Patent Owner argues that “Petitioner fails to identify with particularity in the Petition which elements are met by Jae versus Vaios and relies entirely on arguments in the expert's declaration.” PO Resp. 29. The argument is without merit because the assertion is not true.

With respect to claim 2, the Petition states:

It was obvious to use a computerized controller (such as local computer system 12) and its graphical user interface as taught in Vaios to facilitate audio-video communications between Jae's outdoor terminal 100 (and its camera and microphone) and mobile phone. EX1002, ¶¶347–350. Such a combination was obvious for the same reasons discussed above for similarly combining Vaios with Menard. *Supra*, 19–20.

Upon implementation of such a system at an entrance as discussed above, the modified system of Jae would transmit wireless communications between both the camera and microphone of outdoor terminal 100 at the entrance and a computerized controller running a software application including a graphic user interface by which the audio-video communications are established between the visitor at the entrance and the user using the mobile phone. EX1002, ¶347.

Pet. 54–55. The above-quoted text make amply clear what Petitioner relies on Vaios to teach and to incorporate into Jae's system.

With respect to claim 18, the Petition states: “For the same reasons discussed above for combining Vaios and/or Courtney with Menard, it was obvious to remotely actuate camera 110 in Jae's outdoor terminal 100 using the user's mobile phone (which is a wireless handheld device). EX1002,

¶¶354–357; *supra*, 21–23.” Pet. 55. Regarding the combination of Vaios and Menard, the Petition states:

It was obvious in view of Vaios to remotely actuate Menard’s video camera 370 using PDUs 400 (which include wireless handheld devices). *Id.*, ¶¶ 201–204. Incorporation of such features in Menard is simply a combination of known elements performing their intended functions (Vaios’ remote actuation features) into Menard’s system.

Id. at 21. These parts of the Petition make amply clear what Petitioner relies on Vaios to teach and to incorporate into Jae’s system.

With respect to claim 20, the Petition states: “For the same reasons discussed above for combining Vaios and Courtney with Menard, it was obvious to combine Vaios and/or Courtney with Jae to remotely move Jae’s camera 11 to change the view of the camera using a mobile phone. EX1002, ¶¶ 369–371; *supra* 25.” Pet. 56. Regarding the combination of Vaios and Menard, the Petition states:

Both Vaios and Courtney teach such a manner of remotely actuating a camera. EX1002, ¶¶214–216. Vaios describes control icons used to remotely move and change a camera’s view such as “peak [sic] the camera downwards,” “peak the camera upwards,” and “rotate the camera.” EX1003, 8:1–8.

Similarly, Courtney describes icons 81 or 82 which cause “the selected camera to tilt the orientation of the camera” up or down, respectively. EX1010, 6:4–17. Icons 83 or 84 cause the selected camera to be “adjusted respectively . . . right or left.” *Id.*, 6:15–17.

It was obvious in view of Vaios and/or Courtney to remotely move Menard’s video camera 370 to change its view using PDU 400 for at least the same reasons it was obvious to combine Courtney and/or Vaios with Menard as described above. EX1002, ¶¶ 217–219; *supra*, 21–24.

Pet. 24–25. The above-quoted text make amply clear what Petitioner relies on Vaios to teach and to incorporate into Jae’s system.

Next, Patent Owner argues that Petitioner failed to explain how Jae and Vaios would be combined. PO Resp. 30. The argument is unavailing, because the above-quoted text from the Petition explains specifically how the teachings of Vaios would be combined with the system of Menard.

Then, Patent Owner argues that Petitioner's combination of teachings from Jae and Vaios is improper because it "destroys many key features and indeed the very operation of Vaios." *Id.* at 31. The argument is unavailing for two reasons. First, Patent Owner does not explain what features of Vaios are supposedly destroyed by Petitioner's proposed combination, and how. Second, as discussed above, Petitioner has proposed to incorporate Vaios's disclosed remote access and control features into Jae's system, which yields a modification of the system and operation of Jae, not Vaios. Petitioner has not proposed to modify anything in Vaios, and thus nothing in Vaios is destroyed by Petitioner's proposed modification of Jae's system to incorporate features from Vaios. Petitioner characterizes Patent Owner's "destroy key features of Vaios" argument as "nonsensical and irrelevant." Reply 13. For reasons explained above, we agree.

Patent Owner further argues that Petitioner failed to explain why Menard and Vaios would be combined, that the proposed combination is based on improper hindsight in light of the '183 patent, and that the Petition merely states in a conclusory manner that the proposed combination would have been obvious without providing any explanation or reasoning. PO Resp. 31–32. The arguments are unavailing. As discussed below, we find that Petitioner did not fail to explain why Jae and Vaios would be combined, did not rely on improper hindsight in light of the disclosure of the '183 patent, and did not only state mere conclusions without explanation and reasoning.

Specifically, Petitioner explains in sufficient detail, in a non-conclusory manner, and without hindsight, why one of ordinary skill in the art would have combined the teachings of Jae and Vaios, as follows:

It was obvious to use a computerized controller (such as local computer system 12) and its graphical user interface as taught in Vaios to facilitate audio-video communications between Jae's outdoor terminal 100 (and its camera and microphone) and mobile phone. EX1002, ¶¶347–350. Such a combination was *obvious for the same reasons discussed above for similarly combining Vaios with Menard. Supra*, 19–20.

Upon completion of such a system at an entrance as discussed above, the modified system of Jae would transmit wireless communications between both the camera and microphone of outdoor terminal 100 at the entrance and a computerized controller running a software application including a graphic user interface by which the audio-video communications are established between the visitor at the entrance and the user using the mobile phone. EX1002, ¶347. Pet. 54–55 (emphasis added). On incorporating features of Vaios in Menard, the Petition states:

Incorporation of such features in Menard is simple a combination of known elements performing their intended functions (Vaios' local computer system and graphical user interface) into Menard's system. [Ex. 1002 ¶¶ 186–188]. The combination would have been accomplished using known methods and would yield predictable results having a reasonable expectation of success given that similar system resources (including the software, system components, and network infrastructure) used in Menard could have been utilized to incorporate these features into its system. *Id.* Given the proficiency of POSITAs at the time at utilizing communication networks to implement software and graphical user interfaces at remote locations, the proposed combination would involve minimal engineering complexity and could have been easily and predictably implemented. *Id.* Furthermore, the combination offered motivating advantages that were apparent to POSITAs at the time including improved aesthetics, ease of implementation

and modification of a graphical user interface, lack of reliance on expensive specialized control hardware, and consistent and convenient control and direction of a surveillance system irrespective of the location of the user. *Id.*

Pet. 19–20.

As the above-quoted text plainly indicates, Petitioner has provided more than merely a conclusion that one with ordinary skill in the art would have combined the teachings of Jae and Vaios. Rather, Petitioner provides multiple reasons and explains why one of ordinary skill in the art would have done so, i.e., (1) improved aesthetics; (2) ease of implementation and modification of a graphical user interface; (3) lack of reliance on expensive specialized control hardware; and (4) consistent and convenient control and direction of a surveillance system irrespective of the location of the user. *Id.* It is misplaced for Patent Owner not to recognize these stated reasoning of Petitioner, particularly where, as here, Patent Owner does not dispute that they all do yield advantages for combining Menard and Vaios, and thus Jae and Vaios, the way Petitioner proposes.

Regarding alleged reliance by Petitioner on improper hindsight, Patent Owner does not identify where in the '183 patent is there a description of any one of these benefits to be obtained by including the pertinent claimed features at issue. Even if the '183 patent describes an advantage to be achieved, that does not necessarily mean Petitioner or its expert learned of that benefit by reading the '183 patent. For instance, Petitioner asserts that “these specific advantages of a graphical user interface and its use in a monitoring system are further demonstrated by Vaios.” Reply 18 (citing Ex. 1003, Fig. 3).

Figure 3 of Vaios is reproduced below:

FIG. 3

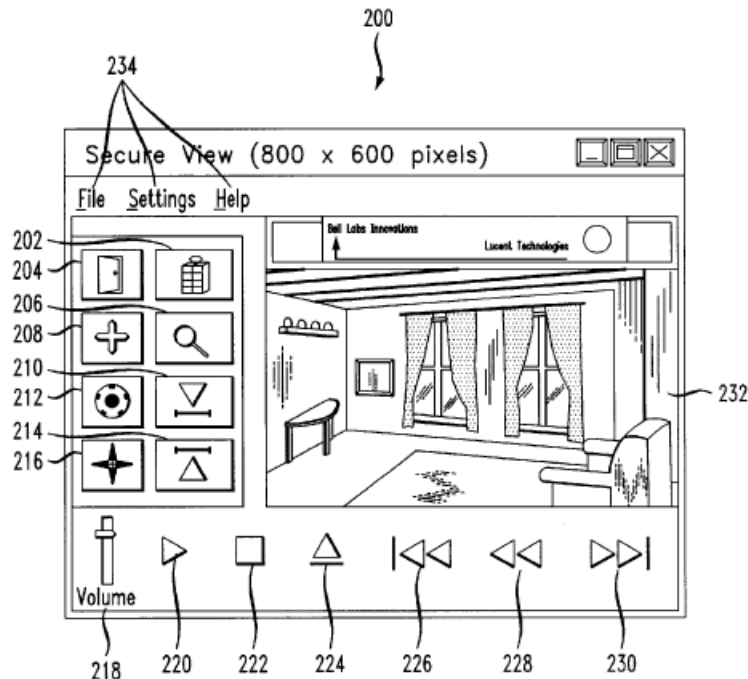


Figure 3 illustrates a browser application display screen according to an embodiment of Vaios. Ex. 1003, 3:5–6. Given the level of ordinary skill in the art, at least some of the advantages, e.g., aesthetics and ease of use and modification, would appear to be self-evident to one of ordinary skill in the art in view of Figure 3 of Vaios. Moreover, as an expert witness, Dr. Hochwald may testify to what, in his opinion, one of ordinary skill in the art would have known, without citing to documentary evidence that say the same. These stated advantages are not the type that require underlying experimental data to ascertain. Rather, they are high level appreciations and recognitions of an ordinarily skilled artisan, which an expert witness may know simply based on his or her knowledge and experience in the art. For the foregoing reasons, we find that Petitioner did not rely on improper hindsight to support combining the teachings of Jae and Vaios.

Patent Owner faults Dr. Hochwald, Petitioner's witness, for testifying to essentially the same as what Petitioner states in the Petition. PO Resp. 32. But there is nothing wrong with an expert's testimony being essentially the same as what Petitioner contends in the Petition. We do not accord the expert testimony little or no weight simply because it is verbatim to what Petitioner states in the Petition. The precedential decision of the Board in *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 (PTAB Aug. 24, 2022), does not indicate otherwise. The problem, if any, is with conclusory testimony. *Id.* at 15–17 (noting that the deficiencies with expert testimony are that they are conclusory and lacking supporting evidence or technical reasoning.). For the same or similar reasons we do not regard Petitioner's assertions to be merely conclusory, as discussed above, similar testimony from Dr. Hochwald is also not conclusory.

Dr. Hochwald testifies: “This [Jae and Vaios] combination would have been obvious for at least the same reasons discussed above for similarly combining Vaios and Menard. *Supra*, ¶¶ 185–188.” Ex. 1002 ¶ 347. For completeness and ease of reference, we reproduce certain pertinent testimony of Dr. Hochwald below:

348. Since Jae teaches and uses suitable infrastructure/networks (including “wireless transmission [and receiving] means,” cellular networks, etc.) analogous to those used in Vaios and similar infrastructure, a POSIA would have readily recognized that such a combination would have been easily and predictably implemented, particularly given the proficiency at the time that POSITAs had at implementing communication networks amongst computing components and implementing software applications/APIs (and corresponding graphical user interfaces) across such networks.

349. The use of a graphical user interface was becoming standardized at the time of the alleged invention (e.g., circa 2000)

because of the computational and graphical power available, the ease of implementation and modification of such an interface, and its lack of reliance on expensive specialized control hardware such as switches, dials, and slider controls can make it the preferred route. Indeed, a POSITA would have understood Jae to already teach the user of a graphical user interface (in that its mobile phones allow a user to view and communicate with a visitor at the entrance and provide commands for creating and displaying welcome messages – *see* discussion above and EX1011, 5:31-36). Thus, a POSITA would have understood this combination of Vaios and Jae to have a high expectation of success when utilizing a graphical user interface. Indeed, the ability to observe audio and video, and submit commands would have been naturally implemented with such an interface. A POSITA would also understand that such a graphical user interface would advantageously be made available to the local and remote user equally. Such an interface would allow consistent and convenient control and direction of the surveillance system irrespective of the location of the user.

350. A POSITA would be motivated to use a graphical user interface as described in Vaios, and to combine these teaching with Jae, because such interfaces were widely used for their superior aesthetics, flexibility, adaptability to new features, ease of use, and durability (lack of moving parts). The ease of incorporating such an interface into a browser application through the use of scripting language and plugins with a computerized controller was well established at the time, and the developer would have reasonable expectation of success.

Ex. 1002 ¶¶ 348–350.

The above-quoted testimony is not merely conclusory, with respect to motivation to combine things, predictable results, and reasonable expectation of success. There is plainly stated reasoning behind all of those subjects.¹⁰ Patent Owner additionally argues that neither Petitioner nor

¹⁰ Furthermore, as we explained above, Dr. Hochwald as an expert witness, may testify to what, in his opinion, one of ordinary skill in the art would have known, without citing to documentary evidence that say the same for

Dr. Hochwald explains why “improved aesthetics” is relevant to the ’193 patent. PO Resp. 34–35 (citing Ex. 1002 ¶ 188). The argument is unavailing, because Dr. Hochwald testifies that graphical user interfaces such as that described in Vaios “were widely used for their improved aesthetics (as compared to non-graphical interfaces).” Ex. 1002 ¶ 188. “Improved aesthetics” is relevant because, according to Petitioner, it was a widely recognized reason for using a graphical user interface. Patent Owner has not presented expert testimony to the contrary.

For the foregoing reasons, Petitioner has proven by a preponderance of the evidence that claims 2, 18, and 20 would have been obvious over Jae and Vaios.

2. *Alleged Obviousness of Claims 18, 19, and 20 over Jae and Courtney*

With respect to claims 18, 19, and 20, Petitioner relies on the disclosure of Courtney the same way it does for the alleged obviousness of claims 18, 19, and 20 over Menard and Courtney, and combines the teachings of Courtney with Jae the same way it proposes to combine the teachings of Courtney with Menard as discussed above. Pet. 55–56.

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner has not presented a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claims 18, 19, and 20 would have been obvious over Jae and Courtney.

support. The stated advantages for combining teachings are not the type that require underlying experimental data to ascertain. Rather, they are high level appreciations and recognitions of an ordinarily skilled artisan, which an expert witness may know simply based on his or her knowledge and experience in the art.

3. *Alleged Obviousness of Claims 18, 19, and 20 over Jae, Vaios, and Courtney*

Petitioner's assertions of obviousness of claims 18, 19, and 20 over Jae, Vaios, and Courtney is largely a reiteration of its assertion of obviousness of these claims over Jae and Vaios and over Jae and Courtney. Pet. 55–56. Petitioner essentially is asserting that because the claims would have been obvious over Jae and Vaios and also over Jae and Courtney, they also would have been obvious over Jae, Vaios, and Courtney. Under this rationale, the stated motivations to combine Jae and Vaios do not change even if Jae is already combined with Courtney, and the stated motivations to combine Jae and Courtney do not change even if Jae is already combined with Vaios.

Patent Owner does not present any argument additional to those it presents for claims 18–20 as obvious over Jae and Vaios, which we have already addressed above. Petitioner has proven by a preponderance of the evidence that claims 18, 19, and 20 would have been obvious over Jae, Vaios, and Courtney.

4. *Alleged Obviousness of Claims 3, 4, and 5 over Jae, with or without Menard, and Knudson*

We address here the grounds listed in rows 14 and 16 of the Table appearing above in Section II.F.

Claims 3, 4, and 5 each depend, directly or indirectly, from claim 1. Ex. 1001, 20:12–19. For claims 3, 4, and 5, Petitioner relies on Knudson the same way it relies on Knudson in the context of the alleged obviousness of these same claims over Menard and Knudson, and the reasoning for combining the teachings of Knudson with Jae are essentially the same as those for combining the teachings of Knudson with Menard, as discussed above. Pet. 57. Also, Petitioner optionally combines Jae and Menard the

way it accounts for claims 1 and 3 as obvious over Jae and Menard. Pet. 37, 41. Petitioner's assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claims 3, 4, and 5 would have been obvious over Jae and Knudson, and also over Jae, Menard, and Knudson.

5. *Alleged Obviousness of Claim 6 over Jae, with or without Menard, and Knudson and Jacob*

We address here the grounds listed in rows 15 and 17 of the Table appearing above in Section II.F.

Claim 6 depends from claim 4. Ex. 1001, 20:20–21. For claim 6, Petitioner relies on Jacob the same way it relies on Jacob in the context of the alleged obviousness of claim 6 over Menard, Knudson, and Jacob, and the reasoning for combining the teachings of Jacob with Jae and Knudson are essentially the same as those for combining the teachings of Jacob with Menard and Knudson, as discussed above. Pet. 58. Also, Petitioner optionally combines Jae and Menard the way it accounts for claims 1 and 3 as obvious over Jae and Menard. Pet. 37, 41.

Petitioner's assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claim 6 would have been obvious over Jae, Knudson, and Jacob, and also over Jae, Menard, Knudson, and Jacob.

6. *Alleged Obviousness of Claims 11, 17, and 21 over Jae and Menard*

Claim 11 depends from claim 1 and further recites “wherein the wireless handheld comprises a personal digital assistant.” Ex. 1001, 20:31–32. Claim 17 depends from claim 1 and further recites “wherein said

transmitting includes communications over a satellite network.” *Id.* at 20:46–47. Claim 21 depends from claim 1 and further recites “wherein said step of detecting the presence of the first person at the entrance is accomplished using a proximity sensor located proximate the entrance.” *Id.* at 20:57–59.

With respect to claim 11, Petitioner asserts that an embodiment of Menard’s PDU 400 is a personal digital assistant known as a PDA. Pet. 58 (citing Ex. 1004, 19:15–16). Petitioner also asserts that it would have been obvious to one with ordinary skill in the art to use a PDA in Jae’s system, as taught by Menard, for improved portability, ease of use, and convenience. *Id.* at 58–59 (citing Ex. 1002 ¶¶ 386–389; Ex. 1003, 6:54–57; Ex. 1004, 1:26–28, 19:9–20). Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard.

With respect to claim 17, Petitioner asserts that Menard discloses use of a satellite network for wireless communication. Pet. 59 (citing Ex. 1004, 16:13–16). Petitioner further asserts that it would have been obvious to one with ordinary skill in the art to use a satellite network, as taught by Menard, for Jae’s non-satellite communication networks, to facilitate communications in remote locations where non-satellite networks are not available. *Id.* at 59 (citing Ex. 1002 ¶¶ 396–397). Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard.

With respect to claim 21, Petitioner identifies Menard’s exterior module 200D which is installed at an entry door of a residence. *Id.* at 60 (citing Ex. 1004, 21:1–10, Fig. 1). Petitioner asserts that exterior module 200D detects presence of a person at the entrance by using video camera 370

which is a proximity sensor located proximate the entrance. *Id.* (citing Ex. 1002 ¶¶ 400–401). Petitioner further asserts that it would have been obvious to one with ordinary skill in the art to use Menard’s proximity sensor (camera) in Jae’s outdoor terminal 100, in place of Jae’s call button, to enable detection of a person at the entrance without any required action of the person, which increases security and corresponding notifications to the user as well as conserves system resources. *Id.* at 61 (citing Ex. 1002 ¶¶ 402–404; Ex. 1003, code (57); Ex. 1004, 4:16–18, 30:22–25).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that each of claims 11, 17, and 21 would have been obvious over Jae and Menard.

7. *Alleged Obviousness of Claim 13 over Jae and Lands*

For claim 13, Petitioner relies on the disclosure of Lands the same way it does for the alleged obviousness of claim 13 over Menard and Lands, and combines the teachings of Lands with Jae the same way it proposes to combine the teachings of Lands with Menard as discussed above. Pet. 62.

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claim 13 would have been obvious over Jae and Lands.

K. *Alleged Anticipation of Claims 1, 2, 9–12, 15, 16, and 18–21 by Naidoo*

1. *Overview of Naidoo*

Naidoo discloses a method for remote monitoring of a premises. Ex. 1004, code (57). Figure 1 of Naidoo is reproduced below:

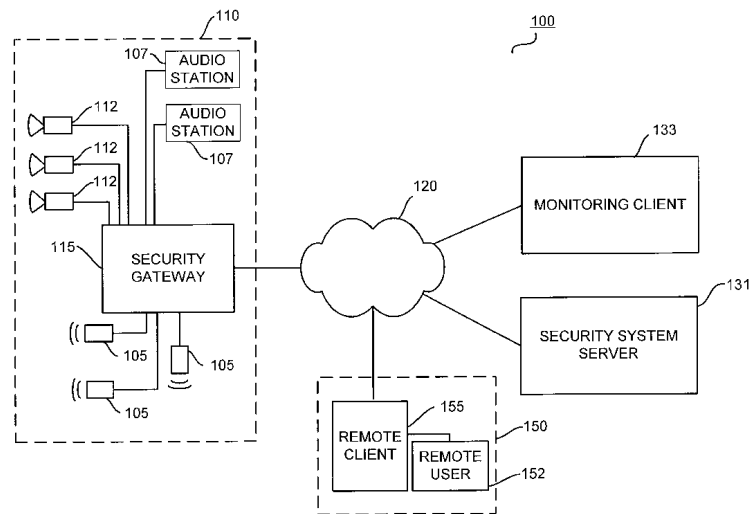


FIG. 1

Figure 1 depicts a block diagram of security system 100 that comprises security gateway 115, which is typically located at premises 110. *Id.* at 6:20–24. Security system 100 further comprises monitoring client 133 operatively coupled to security gateway 115 through network 120. *Id.* at 6:25–27. Security system 100 further comprises security system server 131 operatively coupled to security gateway 115 through network 120. *Id.* at 6:27–30.

Security gateway 115 detects and relays alarm conditions at premises 110 and captures information relating to such alarm conditions. *Id.* at 6:50–52. Upon triggering of an alarm, security gateway 115 sends cached, stored, and live information from pre-event, pre-alarm, and post-alarm segments to security system server 131 for verification and response. *Id.* at 6:52–56.

Security gateway 115 is operatively coupled to security sensors 105, audio stations 107, and video cameras 112 which are located at premises 110 (indoors as well as outdoors). *Id.* at 6:59–65. Video cameras 112 and audio stations 107 capture video data and audio data, respectively, from premises

110. *Id.* at 7:32–34. Audio stations 107 may include microphones and speakers and are capable of providing two-way communication as well as emitting a signal for alerting occupants of the premises that communication is occurring. *Id.* at 7:36–40. Naidoo states: “The present invention provides the advantage of using the security system as a platform for two-way audio and video communication.” *Id.* at 4:23–25.

2. *Independent Claim 1*

Claim 1 begins with preamble: “A method for two-way audio-video communications between a first person at an entrance and a second person.” *Id.* at 19:44–47. Petitioner asserts that Naidoo discloses a “method for remote monitoring of a premises” using “a platform for two-way audio and video communication.” Pet. 63 (citing Ex. 1005, code (57), 4:23–25). Patent Owner does not dispute that Naidoo describes such a method. Petitioner’s assertion is supported by the cited evidence. We find that Naidoo discloses the preamble recitation. We need not determine whether the preamble is limiting.

Step 1(a) recites “detecting the presence of a first person at the entrance.” Ex. 1001, 19:48–49. Petitioner asserts that Naidoo discloses using sensors 105 such as audio sensors, infrared sensors, and motion detectors, located outside of doors of buildings, to detect the presence of a person approaching the door. Pet. 65–66 (citing Ex. 1002 ¶¶ 422–426, Ex. 1005, 6:4–6, 6:67–7:3, 7:13–31, 7:54–59). Petitioner’s assertions are supported by the cited evidence. Patent Owner presents no contrary argument. Petitioner has shown that Naidoo discloses Step 1(a).

Step 1(b) recites “following detection of the presence of the first person at the entrance, providing real time audio-video communications between the first person at the entrance and a second person using a wireless

handheld device.” Ex. 1001, 19:49–52. Petitioner asserts that Naidoo provides a platform for two-way audio and video communication between cameras 112/audio stations 107 which are positioned at an entrance and a remote user using a wireless handheld device. Pet. 66 (citing Ex. 1002 ¶ 428, Ex. 1005, 4:23–25). Naidoo explicitly states: “The present invention provides the advantage of using the security system as a platform for two-way audio and video communication.” Ex. 1005, 4:23–25.

Petitioner asserts that Naidoo provides audio-video communications between a first person at the entrance and a second person who is a remote user. *Id.* at 67 (citing Ex. 1002 ¶ 431). Petitioner explains:

“Application server 434 may be configured to allow remote user 152 to view audiovisual content from security gateway 115” including “initiat[ing] a two-way audio connection with the security gateway 115 so that remote user 152 can communicate through the audio stations 332 via speaker(s) 338 and microphone(s) 334.”

Id. at 67 (citing Ex. 1005, 17:64–66, 18:15–20).

Regarding real-time communication, Petitioner cites to the following disclosure of Naidoo: “the inventive method may provide for streaming data in substantially real-time from the security gateway to the remote client.” Ex. 1005, 3:49–51.

Petitioner’s assertions are supported by the cited evidence. Patent Owner presents no contrary argument. Petitioner has shown that Naidoo discloses Step 1(b).

Step 1(b)(i) recites “transmitting, to the wireless handheld device of the second person, video of the first person at the entrance recorded using a camera located proximate the entrance.” Ex. 1001, 19:53–56. Step 1(b)(ii) recites “transmitting, to the wireless handheld device of the second person,

audio of the first person at the entrance recorded using a microphone located proximate the entrance.” Ex. 1001, 19:57–60.

Petitioner asserts that “Naidoo’s real-time audio-video communications includes transmission of video and audio of the first person at the entrance that is recorded using a camera and microphone located proximate the entrance.” Pet. 69 (citing Ex. 1002 ¶¶ 436–445, Ex. 1005, 7:50–54, 17:64–66, 18:15–20).

Petitioner’s assertions are supported by the cited evidence. Patent Owner presents no contrary argument. Petitioner has shown that Naidoo discloses each of Steps 1(b)(i) and Step 1(b)(ii).

Step 1(b)(iii) recites “transmitting, to a speaker located proximate the entrance for playing to the first person at the entrance, audio of the second person recorded using the wireless handheld device.” Ex. 1001, 20:1–4. Petitioner asserts that Naidoo’s audio-video communications include transmission of audio of the second person that is recorded using the wireless handheld device to a speaker located approximate the entrance. Pet. 40 (citing Ex. 1002 ¶ 447, Ex. 1005, 18:15–20). Petitioner’s assertions are supported by the cited evidence. Patent Owner presents no contrary argument in this regard. Petitioner has shown that Naidoo discloses Step 1(b)(iii).

Petitioner has proven by a preponderance of the evidence that claim 1 is anticipated by Naidoo.

3. *Dependent Claims 2, 9–12, 15, 16, and 18–21*

Claims 2, 9–12, 15, 16, and 18–21 each depend, directly or indirectly, from claim 1. Petitioner has accounted for the additional limitations therein. Pet. 71–81. Petitioner’s assertions are supported by the cited evidence. *Id.*

We are persuaded that Naidoo discloses the additional limitations required by these dependent claims. Patent Owner presents no contrary argument in this regard. Petitioner has proven by a preponderance of the evidence that each of claims 2, 9–12, 15, 16, and 18–21 is anticipated by Naidoo.

*L. Alleged Obviousness of Claims 1, 2, 9–12, 15
16, and 18–21 over Naidoo*

Although Petitioner asserts obviousness of claims 1, 9, 11, 12, 15, and 18–21 over Naidoo, Petitioner argues nothing beyond its assertion that Naidoo discloses the limitations of each of these claims. Pet. 63–81. For the reasons given above with respect to Naidoo anticipating each of claims 1, 9, 11, 12, 15, and 18–21, Petitioner also has made a showing of obviousness of these claims over Naidoo by a preponderance of the evidence. A disclosure that anticipates under 35 U.S.C. § 102 also renders the claim unpatentable under 35 U.S.C. § 103(a), because anticipation is the epitome of obviousness. *See McDaniel*, 293 F.3d at 1385.

Claim 2 depends from claim 1 and further recites: “wherein said transmitting includes wireless communications between both the camera and microphone located proximate the entrance and a computerized controller running a software application including a graphic user interface by which the audio-video communications between the first person and the second person are established.” Ex. 1001, 20:5–11.

In alleging anticipation of claim 2 by Naidoo, Petitioner asserts that one with ordinary skill in the art would have understood that Naidoo’s audio stations 107 are connected to security gateway 115. Pet. 73. Here, Petitioner asserts that one with ordinary skill would have known to connect wirelessly audio stations 107 to security gateway 115 rather than to use a wired connection, because sensors 105 and camera are already wirelessly

connected to security gateway 115, because wired and wireless connections were well-known interchangeable alternatives, and because doing so would increase convenience of installation. *Id.* at 73–74.

With regard to the requirement of a graphical user interface, Petitioner asserts that Naidoo’s security system server 131 is a computerized controller that runs a software application which provides a graphical user interface through which the audio-video communications are established. *Id.* at 74–75 (citing Ex. 1002 ¶¶ 458–469, Ex. 1005, 15:46–55, 15:58–59, 16:22–25, 17:30–33, 17:33–37, 18:57–60).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a contrary argument in this regard. We are persuaded that Naidoo reasonably would have suggested the additional limitation of claim 2. Petitioner has shown by a preponderance of the evidence that claim 2 would have been obvious over Naidoo.

Claim 10 depends from claim 1 and further recites “wherein the wireless handheld comprises a video phone.” Ex. 1001, 20:29–30. In alleging anticipation of claim 10 by Naidoo, Petitioner asserts that Naidoo discloses use of a video phone. Pet. 76. Here, Petitioner asserts that in any event it would have been obvious to one with ordinary skill in the art to use a “video phone” as Naidoo’s wireless handheld device, to obtain the benefits of having video display capabilities, portability, and increased convenience. *Id.* at 12, 76 (citing Ex. 1002 ¶¶ 246, 468).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a contrary argument in this regard. We are persuaded that Naidoo reasonably would have suggested the additional limitation of claim 10. Petitioner has proven by a

preponderance of the evidence that claim 10 would have been obvious over Naidoo.

Claim 16 depends from claim 1 and further recites “wherein said transmitting includes communications over a cellular network.” Ex. 1001, 20:44–45. In alleging anticipation of claim 16 by Naidoo, Petitioner asserts that Naidoo discloses transmission of communications over a cellular network. Pet. 78. Here, Petitioner asserts that in any event it would have been obvious to one with ordinary skill in the art to send transmissions over “a cellular network,” because “[cellular network] was the standard network used at the time for cell phone communications.” *Id.* at 79 (citing Ex. 1002 ¶¶ 486–487).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a contrary argument in this regard. We are persuaded that Naidoo reasonably would have suggested the additional limitation of claim 16. Petitioner has proven by a preponderance of the evidence that claim 16 would have been obvious over Naidoo.

*M. Alleged Obviousness of Claims 3–5
over Naidoo and Knudson*

Claims 3, 4, and 5 each depend, directly or indirectly, from claim 1. Ex. 1001, 20:12–19. For claims 3, 4, and 5, Petitioner relies on Knudson the same way it relies on Knudson in the context of the alleged obviousness of these same claims over Menard and Knudson, and the reasoning for combining the teachings of Knudson with Naidoo essentially is the same as that for combining the teachings of Knudson with Menard, as discussed above. Pet. 82. Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter

argument in this regard. Petitioner has proven by a preponderance of the evidence that claims 3, 4, and 5 would have been obvious over Naidoo and Knudson.

N. Alleged Obviousness of Claim 6 over Naidoo, Knudson, and Jacob

Claim 6 depends from claim 4. Ex. 1001, 20:20–21. For claim 6, Petitioner relies on Jacob the same way it relies on Jacob in the context of the alleged obviousness of claim 6 over Menard, Knudson, and Jacob, and the reasoning for combining the teachings of Jacob with Jae and Knudson essentially is the same as that for combining the teachings of Jacob with Menard and Knudson, as discussed above. Pet. 82. Petitioner's assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claim 6 would have been obvious over Naidoo, Knudson, and Jacob.

O. Alleged Obviousness of Claim 13 over Naidoo and Lands

For claim 13, Petitioner relies on the disclosure of Lands the same way it does for the alleged obviousness of claim 13 over Menard and Lands, and combines the teachings of Lands with Naidoo the same way it proposes to combine the teachings of Lands with Menard as discussed above. Pet. 82–83.

Petitioner's assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claim 13 would have been obvious over Naidoo and Lands.

P. Alleged Obviousness of Claims 16 and 17 over Naidoo and Menard

Claim 16 depends from claim 1 and further recites “wherein said transmitting includes communication over a cellular network.” Ex. 1001, 20:44–45. Petitioner asserts that even assuming that Naidoo does not disclose use of a cellular network, Menard does disclose using a cellular network for communication between module 200 and PDUs 400, and that it would have been obvious to one with ordinary skill to use a cellular network as taught by Menard as Naidoo’s network, to benefit from a network that would have availability in locations in which other networks may not. Pet. 83–84 (citing Ex. 1002 ¶¶ 522–523; Ex. 1004, 16:1–4, 16:24–26, 17:4–5, Figs. 3A, 4).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in this regard. Petitioner has proven by a preponderance of the evidence that claim 16 would have been obvious over Naidoo and Menard.

Claim 17 depends from claim 1 and further recites “wherein said transmitting includes communications over a satellite network.” Ex. 1001, 20:46–47. With respect to claim 17, Petitioner asserts that Menard discloses use of a satellite network for wireless communication. Pet. 84 (citing Ex. 1004, 16:13–16). Petitioner further asserts that it would have been obvious to one with ordinary skill in the art to use a satellite network as taught by Menard, as Naidoo’s network 120, to facilitate communications in remote locations where non-satellite networks are not available. *Id.* at 84 (citing Ex. 1002 ¶¶ 530–531).

Petitioner’s assertions are supported by the cited evidence and have a rational underpinning. Patent Owner does not present a counter argument in

this regard. Petitioner has proven by a preponderance of the evidence that claim 17 would have been obvious over Naidoo and Menard.

III. CONCLUSION

The outcome for challenged claims 1–6 and 9–21 of the '183 patent is set forth in the table below:

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1, 9–12, 15–17, 21	102	Menard	1, 9–12, 15– 17, 21	
1, 9–12, 15–17, 21	103	Menard	1, 9–12, 15– 17, 21	
2, 18, 20	103	Menard, Vaios	2, 18, 20	
18, 19, 20	103	Menard, Courtney	18, 19, 20	
18, 19, 20	103	Menard, Vaios, Courtney	18, 19, 20	
3, 4, 5	103	Menard, Knudson	3, 4, 5	
6	103	Menard, Knudson, Jacob	6	
13	103	Menard, Lands	13	
1, 3, 4, 9, 10, 12, 14– 16	102	Jae	1, 3, 4, 9, 10, 12, 14–16	
1, 3, 4, 9, 10, 12, 14– 16	103	Jae, Menard	1, 3, 4, 9, 10, 12, 14–16	

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
2, 18, 20	103	Jae, Vaios	2, 18, 20	
18, 19, 20	103	Jae, Courtney	18, 19, 20	
18, 19, 20	103	Jae, Vaios, Courtney	18, 19, 20	
3, 4, 5	103	Jae, Knudson	3, 4, 5	
6	103	Jae, Knudson, Jacob	6	
3, 4, 5	103	Jae, Menard, Knudson	3, 4, 5	
6	103	Jae, Menard, Knudson, Jacob	6	
11, 17, 21	103	Jae, Menard	11, 17, 21	
13	103	Jae, Lands	13	
1, 2, 9–12, 15, 16, 18–21	102	Naidoo	1, 2, 9–12, 15, 16, 18–21	
1, 2, 9–12, 15, 16, 18–21	103	Naidoo	1, 2, 9–12. 15, 16, 18–21	
3, 4, 5	103	Naidoo, Knudson	3, 4, 5	
6	103	Naidoo, Knudson, Jacob	6	
13	103	Naidoo, Lands	13	

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
16, 17	103	Naidoo, Menard	16, 17	
Overall Outcome			1–6, 9–21	

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has proven by a preponderance of the evidence that each of claims 1–6 and 9–21 of the '183 patent is 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.

IPR2022-00814
Patent 8,144,183 B2

FOR PETITIONER:

Michael Houston
Nicholas Lagerwall
FOLEY & LARDNER LLP
mhouston@foley.com
nlagerwall@foley.com

FOR PATENT OWNER:

Niky R. Bagley
Gary R. Sorden
COLE SCHOTZ P.C.
nbagley@coleschotz.com
gsorden@coleschotz.com