

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KONINKLIJKE PHILIPS N.V. and PHILIPS NORTH AMERICA LLC,
Petitioner,

v.

FITBIT, LLC,
Patent Owner.

IPR2021-00494
Patent 7,145,462 B2

Before DAVID C. MCKONE, STACEY G. WHITE, and
NORMAN H. BEAMER, *Administrative Patent Judges*.

BEAMER, *Administrative Patent Judge*.

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

I. INTRODUCTION

On February 4, 2021, Koninklijke Philips N.V. and Philips North America LLC (collectively, “Petitioner”) filed a Petition (Paper 1, “Pet.”) pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1–8, 10, 11, 13, 16, 17, 19–24, 27, and 33–36 of U.S. Patent No. 7,145,462 B2 (Ex. 1001, “the ’462 patent”). We instituted *inter partes* review on August 2, 2021. Paper 11. On November 23, 2021, Fitbit, Inc. (“Patent Owner”) filed Patent Owner’s Response (Paper 18, “PO Resp.”).¹ Petitioner filed a Reply and Patent Owner filed a Sur-Reply. Papers 22, 28.

An oral hearing took place on May 3, 2022. The Hearing Transcript (“Tr.”) is included in the record as Paper 33. After considering the parties’ arguments and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1–8, 10, 11, 13, 16, 17, 19–24, 27, and 33–36 of the ’462 patent are unpatentable.

II. BACKGROUND

A. *The ’462 Patent*

The ’462 patent, titled “System And Method For Automatically Generating An Alert Message With Supplemental Information,” issued December 5, 2006, from an application filed January 9, 2004, which relates to a provisional application filed January 10, 2003. Ex. 1001, codes [54], [45], [22], [60].

The ’462 patent is directed to:

An automated monitoring and response system [which] includes sensors for monitoring an actor and the actor’s environment, and an alert module interfaced with the sensors

¹ On July 31, 2021, Patent Owner reorganized as Fitbit LLC. Paper 13, 1.

and adapted to identify an existence of an emergency situation relating to the actor or the environment. The alert module is adapted to generate an alert message for one or more responders, the alert message including a primary alert message component and a supplemental alert message component. The supplemental alert message component includes non-primary supplemental information relating to the actor and/or the environment and giving context to the at least one emergency situation, including, for example, sensor data relevant to the emergency situation.

Ex. 1001, Abstr. Figure 1 of the '462 patent is reproduced below.

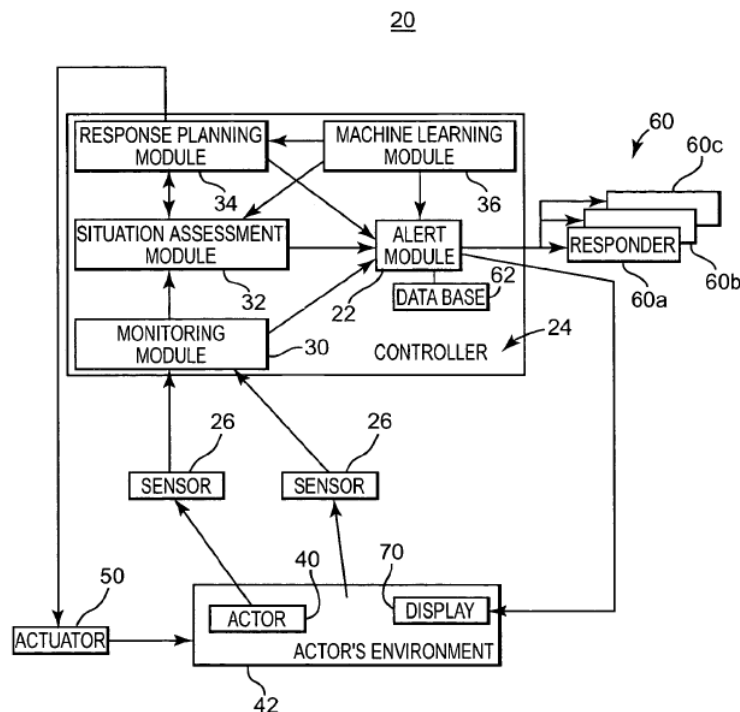


Fig. 1

Figure 1 is a block diagram that depicts alert system 20, including actor 40 in an environment 42, with sensors 26 that monitor activities of the actor and/or information on the environment. *Id.* at 3:11–12, 3:32–43. “[S]ensors 26 can include motion detectors, pressure pads, door latch sensors, panic buttons, toilet-flush sensors, microphones, cameras, fall-

sensors, door sensors, heart rate monitor sensors, blood pressure monitor sensors, glucose monitor sensors, moisture sensors, a medication caddy, light level sensors, water flow sensors, telephone sensors, thermal sensors, optical sensors, seismic sensors, etc.” *Id.* at 4:7–14. Controller 24 receives information from the sensors and includes alert module 22, monitoring module 30, situation assessment module 32, and response planning module 34 which collectively interpret the information and determine whether to issue an alert message to responders 60. *Id.* at 3:32–61. The modules can be implemented, for example, as software running on a microprocessor. *Id.* at 4:21–31. The alert messages include a primary component containing an identification that an emergency situation exists, the actor’s identification, such as the actor’s name, a classification of the emergency type (e.g., fire, medical, security, etc.), and the current location of the emergency. *Id.* at Fig. 2, 5:64–6:5. The alert messages also include a supplemental component that augments or gives context to the primary information, such as status/activity information indicating actor/environment status or actor activity information, historical record information, static location specific information, and system response information. *Id.* at Fig. 2, 6:6–22.

For example, an alert could provide “primary information of ‘help needed at 1 Main Street’ . . . supplemented with supplemental information of ‘actor has fallen down and is apparently unconscious in the basement.’”

Ex. 1001, 6:42–45. An additional example would be a:

primary message of “help needed at 1 Main Street” . . .
supplemented with supplemental information of “the actor has
fallen, the glucose monitor shows abnormal levels, it is believed
that the actor did not take an insulin shot as required, it is
believed that the actor ate one hour ago, and there is a note from

the actor's caregiver that the actor likes to eat high-sugared items.”

Id. at 6:47–53.

B. Illustrative Claim

Independent claim 1 is reproduced below.

1. A method of providing an alert message relating to an actor in an environment with an automated monitoring and response system, the method comprising:

- (a) providing at least one sensor;
- (b) storing facts about at least one of the actor and the environment;
- (c) identifying an existence of at least one emergency situation relating to the actor or the environment, wherein identifying includes evaluating sensory data provided by the at least one sensor located in the environment in conjunction with the stored facts;
- (d) generating a primary alert message component of primary information for enabling a response to the at least one emergency situation, wherein the primary alert message component includes:
 - an indication that the at least one emergency situation exists,
 - a location of the at least one emergency situation,
 - an emergency type classification, and
 - actor identification information;
- (e) automatically generating a supplemental alert message component comprising non-primary supplemental information relating to the actor and/or the environment and giving context to the at least one emergency situation; and
- (f) electronically sending the primary and supplemental alert message components to at least one designated responder.

Ex. 1001, 12:2–29.

C. References

Petitioner relies upon the following prior art references (Pet. 4):

- Theriault, International Patent Application No. PCT/US99/25554 (“Theriault”), published May 11, 2000. Ex. 1004.
- Mault, U.S. Patent Application Publication No. 2001/0044588 (“Mault”), published November 22, 2001. Ex. 1006.
- Jacobsen, et al., U.S. Patent No. 6,160,478 (“Jacobsen”), issued December 12, 2000. Ex. 1008.
- Henderson, et al., U.S. Patent No. 6,072,392 (“Henderson”), issued June 6, 2000. Ex. 1012.

Petitioner also filed a Declaration and a Second Declaration of Dr. Darrin J. Young in support of the Petition. Ex. 1002 (“Young Decl.”); Ex. 1013 (“Young 2nd Decl.”). Patent Owner filed a Declaration of Majid Sarrafzadeh, Ph.D. Ex. 2001 (“Sarrafzadeh Decl.”).

D. Asserted Grounds of Unpatentability

Patent Owner challenges claims 1–8, 10, 11, 13, 16, 17, 19–24, 27, and 33–36 on the following grounds of unpatentability (Pet. 3):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–8, 10, 16, 20–24, 27, 33–36	§ 103(a) ²	Theriault

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Because the effective filing date for the claims of the ’462 patent appears to be before the effective date of the applicable AIA amendment, we refer to the pre-AIA version of 35 U.S.C. § 103. *See* Ex. 1001, code (60) (provisional application filing date of January 10, 2003). Our determinations would not change under the post-AIA version of this statute.

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
11, 13	§ 103(a)	Theriault, Mault
17	§ 103(a)	Theriault, Jacobsen
19	§ 103(a)	Theriault, Henderson
1–8, 10, 11, 16, 17	§ 103(a)	Jacobsen
13, 20–24, 27, 33–36	§ 103(a)	Jacobsen, Mault
19	§ 103(a)	Jacobsen, Henderson

E. Real Parties in Interest

The parties identify themselves as the real parties in interest. Pet. 1; Paper 5, 1; Paper 13, 1.

F. Related Proceedings

The parties state that the '462 patent is the subject of *Fitbit, Inc. v. Koninklijke Philips N.V. and Philips North America LLC.*, No. 20-cv-11613 (D. Mass.). Pet. 1; Paper 5, 1.

III. ANALYSIS

A. Obviousness: Legal Standards

A claim is unpatentable for obviousness if, to one of ordinary skill in the pertinent art, “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a) (2000)).

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 (“the *Graham* factors”).³ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

A patent claim “is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. Rather, an obviousness determination requires finding “both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.’” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367–68 (Fed. Cir. 2016) (citation omitted); *accord KSR*, 550 U.S. at 418 (for an obviousness analysis, “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements [in the way the claimed] new invention does”). “Although the *KSR* test is flexible, the Board ‘must still be careful not to allow hindsight reconstruction of references . . . without any explanation as to *how* or *why* the references would be combined to produce the claimed invention.’” *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (citation omitted).

Further, an assertion of obviousness “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)); *accord In re NuVasive, Inc.*, 842 F.3d 1376, 1383 (Fed.

³ The record here does not include evidence of secondary considerations.

Cir. 2016) (stating that “‘conclusory statements’” amount to an “insufficient articulation[] of motivation to combine”; “instead, the finding must be supported by a ‘reasoned explanation’” (citation omitted)); *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016) (“To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.”).

“[A] combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 550 U.S. at 416. “[I]n many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. . . . A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *Id.* at 420–421.

“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). “Combining the *teachings* of references does not involve an ability to combine their specific structures.” *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973).

B. Level of Skill in the Art

Petitioner’s expert opines that a person of ordinary skill in the art (“POSITA”) of the ’462 patent as of the filing date of the challenged claims would be as follows:

[A] POSITA . . . would have had at least a Bachelor’s Degree in an academic area emphasizing electrical engineering,

computer science, or a similar discipline, and at least two years of experience in personal monitoring systems. Superior education could compensate for a deficiency in work experience, and vice-versa. To the extent necessary, the POSITA may have collaborated with other skilled artisans, such that the POSITA would have had experience and/or knowledge of particular characteristics of an actor and/or environment to be monitored and evaluated.

Young Decl. ¶ 69.

Patent Owner submits that:

A person of ordinary skill in the art as of the time of the inventions of the '462 patent ("POSITA") would have had had a bachelor's degree in computer science, software engineering, electrical engineering, or the equivalent and at least two years of experience in the relevant field, e.g., personal monitoring systems and processes More education can supplement practical experience and vice versa.

PO Resp. 1–2 (citing Sarrafzadeh Decl. ¶¶ 15–18) (footnote omitted).

The parties' proposals are similar, excepting Petitioner's additional point regarding collaboration with other skilled artisans. The level of ordinary skill in this case is not dispositive of any challenge. We determine that Petitioner's proposal is consistent with the level of ordinary skill in the art reflected by the prior art, and we apply Petitioner's articulation. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

C. Claim Construction

The Petition was accorded a filing date of February 4, 2021. Paper 3, 1. In an *inter partes* review for a petition filed on or after November 13, 2018, a claim "shall be construed using the same claim construction standard that would be used to construe the claim in a civil

action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b) (2019). We apply the claim construction standard from *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (*en banc*).

Under that standard, claim terms generally are given their ordinary and customary meaning, as would be understood by one with ordinary skill in the art in the context of the specification, the prosecution history, other claims, and even extrinsic evidence including expert and inventor testimony, dictionaries and learned treatises, although extrinsic evidence is less significant than the intrinsic record. *Phillips*, 415 F.3d at 1312–17. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315. Claim terms need only be construed to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

Petitioner submits that the claim 1 requirement, “storing facts about at least one of the actor and the environment,” should be construed to require “storing facts about the actor and storing facts about the environment.” Pet. 10. Petitioner relies on *In Simo Holdings Inc. v. H.K. uCloudlink Network Tech., Ltd.*, 2021 U.S. App. LEXIS 137, at *15–16 (Fed. Cir. 2021) (stating the “general grammatical principle” for interpreting a claim which recites “at least one of X and Y” as requiring at least one of X and at least one of Y (instead of at least one of X or at least one of Y)). *Id.*

Patent Owner disagrees with this interpretation, but “for the purpose of this Response, PO analyzes Petitioners’ proposed mappings based on this

interpretation.” PO Resp. 2. Accordingly, we apply Petitioner’s proposed construction.⁴

D. Ground 1: Obviousness of Claims 1–8, 10, 16, 20–24, 27, and 33–36 Over Theriault

Petitioner challenges claims 1–8, 10, 16, 20–24, 27, and 33–36 as obvious over Theriault. Pet. 10–41.

1. Theriault

Theriault discloses a monitoring device that includes sensors that measure physical or environmental conditions relating to a person — for example an elderly person or a baby. Ex. 1004, Abstr., 1:26–30, 6:26–7:1. The device also includes a processor, which determines from the sensor data whether an alarm condition is present, and a transmitter which transmits an alarm message to a subscriber of a monitoring service via a pager or the internet, for example. *Id.* Figure 1 is reproduced below.

⁴ An additional issue regarding the interpretation of “storing facts about at least one of the actor and the environment” is discussed in Section III.D.3.c) below.

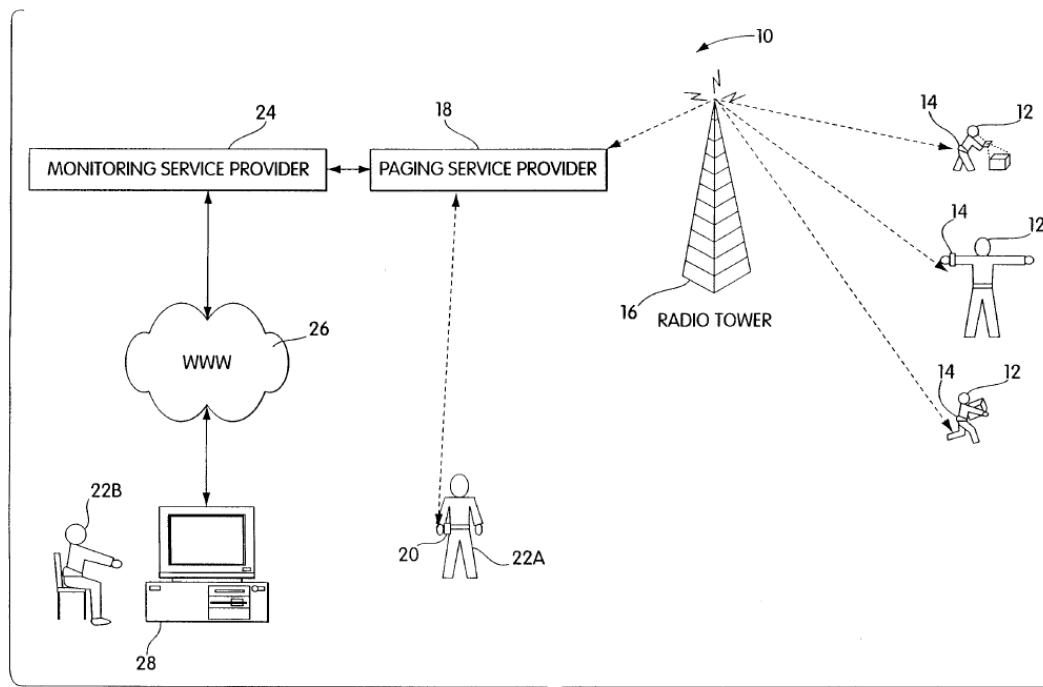


Fig. 1

Figure 1 is a diagram of system 10, including persons 12 wearing monitors 14 carrying sensors and transmitting information, via relay station 16, to paging service provider 18, and monitoring service provider 24, and thence to persons 22A and 22B. *Id.* at 6:26–8:2.

If an alarm condition is sensed, the system can send a message that “may include various types of data ranging from a mere flag that indicates that an alarm condition exists to detailed information regarding the nature of the alarm condition, sensor readings, historical sensor readings, and other information.” Ex. 1004, 12:10–15.

2. *Petitioner’s Obviousness Analysis Based On Theriault Alone*

As a threshold matter, Patent Owner challenges Petitioner’s reliance on a single reference (Theriault) for its Ground 1 obviousness challenge. PO Resp. 49–52. In particular, Patent Owner argues that Petitioner’s Ground 1

is more in the nature of an anticipation challenge, and that Petitioner has failed to present a proper obviousness analysis, asserting that, for Ground 1:

[T]he Petition is utterly devoid of any obviousness analysis Ground[] 1 . . . contain[s] no evidence and/or argument concerning the differences between the reference[] (Theriault . . .) and the claimed invention of the '462 patent, what modification Petitioners propose, why the modification would have been obvious, and how the resulting modified prior art system/method meets the challenged claims.

Id. at 50.

We are not persuaded that Petitioner's Ground 1 obviousness challenge is deficient. As Patent Owner admits, and as discussed below, Petitioner presents evidence that, based on the understanding of one skilled in the art, each claim element would have been described or taught by disclosures in Theriault. Paper 6, 6–7. Patent Owner in effect argues that if a reference would have disclosed, from the vantage point of a person of ordinary skill in the art at the time of the invention, the subject matter of a claim, then there is still a requirement to articulate some “difference” between the art and the claim, and posit an obvious “modification” that would “meet” the claim, in order to comply with *Graham*. There is no such requirement. This is an instance in which anticipation is the epitome of obviousness. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983) (quoting *In re Fracalossi*, 681 F.2d 792, 794 (CCPA 1982)). Patent Owner argues that this truism is inapplicable here, citing instances where the Board has declined to institute obviousness grounds supported only by an anticipation analysis. *Id.* at 8–9. We are not persuaded by those pre-*SAS* decisions, in which Petitioner presented an anticipation challenge in detail and added a pro-forma obviousness ground based on the same

reference without any separate substantive analysis. We adhere to the “common[] underst[anding] that prior art references that anticipate a claim will usually render that claim obvious.” *Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1364 (Fed. Cir. 2008). As discussed further below, Petitioner has proved its obviousness challenge of claim 1 (and other claims) by a preponderance of the evidence based on Theriault alone.

3. *Obviousness of Independent Claims 1 and 20 over Theriault*

a) *Claim 1 Preamble*

Without conceding that the preamble of claim 1 is limiting, Petitioner relies on the disclosure in Theriault, which we have summarized above, of a “method of providing an alert message relating to an actor in an environment with an automated monitoring and response system.” Ex. 1001, 12:2–4; Pet. 12–14 (citing Ex. 1004, Figs. 1, 4, 10:4–6, 12:10–15; Young Decl. ¶¶ 169–170). Given this disclosure, and the fact that Patent Owner does not address the preambles of the independent claims, there is no need to determine whether the preamble is limiting because the preponderance of the evidence supports a determination that Theriault would have taught or suggested the subject matter of the preamble. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

b) *Claim 1, First Element*

The first element of claim 1 requires, “providing at least one sensor.” Ex. 1001, 12:5. Petitioner relies on the sensors disclosed in Theriault for detecting physical and environmental conditions. Pet. 14–15 (citing Ex. 1004, 6:28–30; Young Decl. ¶¶ 171–172). Patent Owner does not address this claim requirement, and we determine that the preponderance of

the evidence proves that Theriault would have taught or suggested the subject matter of this requirement.

c) *Claim 1, Second Element*

The second element of claim 1 requires, “storing facts about at least one of the actor and the environment.” Ex. 1001, 12:6–7. As discussed above, we construe this claim element as requiring “storing facts about the actor and storing facts about the environment.” Petitioner relies on the disclosure in Theriault of generating alerts based on the comparison of a person’s temperature to stored upper and lower limits, the comparison of ambient temperature to stored upper and lower limits, and the comparison of audio signals (picked up from a microphone in the monitoring device) to stored audio profiles (such as profiles tailored to a baby crying or a person shouting). Pet. 15–17 (citing Ex. 1004, Fig. 5, 11:17–21, 11:25–27, 11:30–12:9, 17:15–17; Young Decl. ¶¶ 86–89, 176–178). Petitioner argues that the stored upper and lower limits and audio profiles are facts about the actor and the environment. *Id.* Petitioner also relies on the disclosure in Theriault of the use of GPS locator data to generate an alert if a person “leave[s] a particular area,” and reasons that this disclosure teaches that the GPS location of the area at issue would be stored in order to compare it to the actor’s current location, and is an example of a stored fact about the environment. Pet. 17 (citing Ex. 1004, 13:1–4; Young Decl. ¶¶ 91–92, 183–184).

Patent Owner argues that these upper and lower limit temperature values and audio profiles of Theriault are not specific to the person or their environment, but rather are general values that are set based on generally applicable skin and ambient temperatures, or on typically encountered audio

conditions. PO Resp. 17–21. Therefore, argues Patent Owner, Theriault does not teach or suggest the second element of claim 1 because this claim element requires the stored facts to be specific to the particular actor and environment being monitored, and not “[g]eneric ‘facts about individuals and environments’ generally, even if they are ‘used to assess whether an alarm condition exists for the particular individual and environment being monitored.’” *Id.* at 15. Patent Owner argues that, otherwise, the limitation is rendered meaningless, because the third limitation of claim 1 (discussed below) “already requires ‘identifying an existence of at least one emergency situation relating to the actor or the environment . . . in conjunction with the stored facts.’” *Id.* In addition, Patent Owner argues that such an interpretation is inconsistent with the disclosure in the ’462 patent of using specific facts to detect an actor’s diabetic condition. *Id.* at 15–16.

We see no basis for this narrow construction of the second element of claim 1. Even if the threshold values and audio profiles are not specifically tailored to an individual or a particular environment, they are nonetheless facts about individuals and environments that are used to assess whether an alarm condition exists for the particular individual and environment being monitored, and thus are properly regarded as “facts about at least one of the actor and the environment.” Contrary to Patent Owner’s argument, the second and third limitations of the claim complement each other, whether or not the stored facts are unique to the current actor or environment. Moreover, Patent Owner provides no basis for its assumption that monitoring an actor’s diabetic condition involves stored facts, such as symptomatic blood sugar levels, that are specific to the individual as opposed to broadly-based criteria applicable to diabetic patients in general.

Patent Owner's expert's testimony on this point is conclusory and unsupported. Sarrafzadeh Decl. ¶ 44; Reply 12–13.

In any event, Theriault *does* teach that the upper and lower limit temperature values and audio profiles used to compare with sensor readings and trigger alarm conditions are specific to the actor and environment being monitored. Pet. 15–18; Reply 12. Theriault discloses that “portable monitor 14 can be modified to have different thresholds depending on a particular child (or person being monitored).” Pet. 17; Ex. 1004, Fig. 5, 17:3–9; Young Decl. ¶¶ 76, 117, 179–183; Young 2nd Decl. ¶¶ 25–26. Noise threshold values can be modified depending on whether a child cries very loudly or more quietly, and thresholds can be adjusted to “recognize an individual[']s voice and/or perform speech recognition.” Pet. 16–17; Ex. 1004, 11:30–12:9, 17:3–13; Young Decl. ¶¶ 86–89, 177–178. Likewise, the above-discussed use of GPS locator data requires storing the GPS location of the area being monitored, which is a fact specific to the environment. Pet. 17 (citing Ex. 1004, 13:1–4; Young Decl. ¶¶ 91–92, 183–184). Based on experience monitoring a particular individual, Theriault provides for the ability make “intelligent adjustments (manually or automatically) in the rules stored in a portable monitor for detecting an alarm condition.” Ex. 1004, 17:15–20, 18:30–19:1.

Patent Owner argues that Theriault's “‘rules’ and ‘thresholds’ are ‘condition statements, combined by Boolean logic, which when satisfied results in microprocessor 50 to set an alarm condition flag,’” and therefore are not stored facts. PO Resp. 17, 22 (citing Ex. 1004, 11:23–25; Sarrafzadeh Decl. ¶ 47). However, the stored facts that Petitioner relies on are not the Boolean logic condition statements themselves, but rather the

stored values, such as the “UPPER LIMIT” and “LOWER LIMIT” temperature values of Theriault Figure 5, that are used in those Boolean statements. Pet. 15–16. In addition, despite Patent Owner’s argument to the contrary (PO Resp. 18), Theriault does disclose that those limit values can be modified to have different thresholds depending on a particular child (or person being monitored), and therefore are specific to the actor or environment. Ex. 1004, Fig. 5, 17:4–6. Likewise, Patent Owner’s argument that the stored audio profiles are not specific to the actor (PO Resp. 19–20) are unsound — Theriault specifically discloses that such profiles will vary depending on, for example, whether a child tends to cry very loudly or more quietly. *Id.* at 17:6–10. This disclosure also refutes Patent Owner’s speculation that the audio profile is used to detect activity by a third party rather than a monitored actor. PO Resp. 21; Sur-Reply 14–15.⁵

Thus, we determine that Petitioner has proved by a preponderance of the evidence that Theriault would have taught or suggested storing facts specific to a particular actor and environment, as required by the second element of claim 1.

d) *Claim 1, Third Element*

The third element of claim 1 requires:

identifying an existence of at least one emergency situation relating to the actor or the environment, wherein identifying includes evaluating sensory data provided by the at

⁵ Patent Owner also disputes that the relied-on threshold and profile values are stored, as required by the second element of claim 1. PO Resp. 22; Sur-Reply 15. As discussed for claim 36 in Section III.D.4 below, Theriault does disclose this aspect of the claims.

least one sensor located in the environment in conjunction with the stored facts.

Ex. 1001, 12:8–12. Petitioner notes that the '462 patent states, “[a]s used throughout this specification, an ‘emergency situation’ is defined as any event that causes an actor to require or desire assistance, regardless of severity or whether the need for assistance is actual or perceived.” Pet. 20 (citing Ex. 1001, 1:33–36). Petitioner relies on the disclosure in Theriault of triggering an alarm condition as a result of the above described comparison of sensor measurements to stored threshold and audio profiles. Pet. 19–21 (citing Ex. 1004, Fig. 5, 7:2–4, 10:13–15, 11:17–29, 13:1–4, 17:6–7; Young Decl. ¶¶ 84–86, 91–92, 95–97, 174–195). Patent Owner does not address this claim requirement, and we determine that the preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this requirement.

e) *Claim 1, Fourth Element*

The fourth element of claim 1 requires:

generating a primary alert message component of
primary information for enabling a response to the at
least one emergency situation, wherein the primary
alert message component includes:
an indication that the at least one emergency situation
exists,
a location of the at least one emergency situation,
an emergency type classification, and
actor identification information.

Ex. 1001, 12:13–21. Petitioner relies on the disclosure in Theriault of generating a page message in response to an alarm condition, which “may

include various types of data ranging from a mere flag that indicates that an alarm condition exists to detailed information regarding the nature of the alarm condition, sensor readings, historical sensor readings, and other information” Pet. 21–22 (citing Ex. 1004, 7:19–8:2, 12:10–15, 13:15–16; Young Decl. ¶¶ 98, 197–199). In addition, Theriault discloses that data from a GPS locator may be included in the page message. Pet. 22–23 (citing Ex. 1004, 13:1–2; Young Decl. ¶¶ 94, 197–198, 200). Also, Theriault discloses that there is a “unique identification code identifying portable monitor 14 and the name or identification code of the subscriber to whom the paging message relates” Pet. 25 (citing Ex. 1004, 15:3–6); Reply 7 (citing Ex. 1004, 14:28–15:12).

Petitioner argues that the required “indication that the at least one emergency situation exists” is taught by the “flag that indicates that an alarm condition exists” in the page message, that the required “location of the at least one emergency situation” corresponds to the GPS data in the page message, that the required “emergency type classification” is included in the “detailed information regarding the nature of the alarm condition” (an example of which is a “log of various events” depicted in Figure 9 of Theriault), and that the required “actor identification information” corresponds to the “unique identification code identifying [the] portable monitor” included in the page message. Pet. 23–25 (citing Ex. 1004, Figs. 7, 9, 12:12–15, 13:1–2, 14:6–27, 15:3–6, 15:30–16:2; Young Decl. ¶¶ 94, 100–102, 201–206).

As discussed below, Patent Owner disputes Petitioner’s positions regarding the required “emergency type classification” and “actor identification information” of the fourth element of claim 1.

(1) Fourth Element: emergency type classification

Patent Owner argues that Theriault would not have taught or suggested an “emergency type classification” in a primary alert message as required by claim 1. PO Resp. 11–14. However, as discussed, Petitioner relies on the disclosure in Theriault that the alert message can include “detailed information regarding the nature of the alarm condition.” Pet. 23 (citing Ex. 1004, 12:12–15). In particular, Petitioner relies on an example of such “detailed information” depicted in Figure 9, which shows a log of events detected by the monitor, including the “nature of the event” such as a “No Diaper Changed” event, a “Crying EPISODE” event, and a “Monitor Disconnected” event. Pet. 23–24 (citing Ex. 1004, Fig. 9, 15:30–16:2; Young Decl. ¶¶ 100–101, 202–205).

Patent Owner argues that these logged events cannot be “emergency type classifications” because of a statement in our August 2, 2021, Decision to Institute:

[W]e are persuaded that such detailed information is properly considered part of the supplemental alert message, rather than the primary alert message, given that the ’462 patent explains that examples of the “emergency type classification” component of the primary alert message are merely such shorthand designations as “fire, medical, security, etc.,” whereas the supplemental alert message includes the more comprehensive “nature of emergency details.”

Paper 11, 21–22. Patent Owner argues that this statement necessarily means that the “detailed information regarding the nature of the alarm condition” included in the alarm message cannot be part of the primary alert message, because it is in the supplemental alert message. PO Resp. 13; Sur-Reply 9–10.

However, Patent Owner ignores the fact that the Decision to Institute specifically determined that the Figure 9 event log information satisfied the “emergency type classification” component of the primary alert message. Paper 11, 17, 19. The above statement in the Decision to Institute relied on by Patent Owner was in the context of claim 6, which requires “the supplemental information indicates an inferred cause of the at least one emergency situation based on an assessed status of the actor.” Ex. 1001, 12:45–47. The “detailed information” relied on for claim 6 was not the Figure 9 event log information, but the disclosure in Theriault of supplemental information allowing the system to determine whether a person is being jerked suddenly, or a child is crying in an unusual manner, based on data received from an accelerometer or microphone. Paper 11, 21. Thus, the Decision to Institute preliminarily relied upon the proposition that different portions of the “detailed information regarding the nature of the alarm condition” included in the alarm message can be part of both the primary alert message and the supplemental alert message — a proposition that we adhere to in this Decision. *See* Reply 9–10.

Patent Owner also argues that the Figure 9 event log event descriptions such as “No Diaper Changed,” “Crying EPISODE,” and “Monitor Disconnected” are basically inconsistent with the emergency type classification examples of the ’462 patent: “fire, medical, security, etc.” PO Response 13–14 (citing Ex. 1001, 6:2–3). However, the ’462 patent also states, “[a]s used throughout this specification, an ‘emergency situation’ is defined as any event that causes an actor to require or desire assistance, regardless of severity or whether the need for assistance is actual or perceived.” Ex. 1001, 1:33–36. This encompasses much more than fire,

medical, or security classifications. We decline to limit the scope of this claim requirement to these examples in the '462 specification. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004) (“We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification.”). *See* Reply 10.

(2) Fourth Element: actor identification information

Patent Owner argues that the unique identification code included in the page message of Theriault does not disclose or suggest actor identification information. PO Resp. 3–11 (citing Sarrafzadeh Decl. ¶¶ 23–35). In particular, Patent Owner argues that the unique identification code of the monitor is not the claimed “actor identification information.” *Id.* at 8 (citing Sarrafzadeh Decl. ¶¶ 32–35). We do not agree. A unique identification of a particular monitoring device, which is worn by the actor, is sufficient to satisfy the claim requirement of “actor identification information.” We agree with Petitioner that “[a] POSITA would have understood that the unique identifier taught by Theriault identifies the person carrying/wearing the portable device 14.” Pet. 25 (citing Young Decl. ¶¶ 102, 206); Reply 5–7.

Patent Owner asserts that “[t]here is no evidence in Theriault or anywhere else in this record that a device such as Theriault’s portable monitor is necessarily tied to a particular actor, or that the monitor’s identifier necessarily identifies a particular person being monitored.” PO Resp. 9. Not so — Theriault discloses that each monitor is worn or carried by a particular actor. Reply 5–6; Ex. 1004, Fig. 1, 6:28 (“[e]ach one of persons 12 wears or carries a remote portable monitor 14”). Theriault

further discloses that information received from a monitor worn by an actor is stored “in association with [the] unique identification code” of the monitor and subsequently retrieved by selecting the specific actor who wears the monitor. *Id.*, Fig. 7, 14:10–11, 15:3–5. Theriault provides an example where three different actors are being monitored: a “Baby,” a presumably infirm “Parent,” and a “Child” (*e.g.*, “a toddler, preschooler, or an older child”). *Id.*, Fig. 7, 14:10–15. As shown in Figures 7 and 9, the information for each actor can be separately retrieved. *Id.*, Figs. 7, 9, 14:8–26, 15:30–16:2. Thus, within Theriault system itself, the identification code of each monitor is intrinsically associated with, and thus identifies, the actor. *See* Tr. 49:18–53:26. This intrinsic operation of Figures 7 and 9 in Theriault belies Patent Owner’s attempt to characterize the unique identification code of the monitor in Theriault as somehow only associated with the actor as a “subjective” concept existing only in the mind of a parent or some other human doing the monitoring of the actor. Sur-Reply 3–4.

In addition, Patent Owner’s expert comes up with various scenarios, such as the possibility that a particular monitor could be used by more than one person, or that one person could be wearing multiple monitors. Sarrafzadeh Decl. ¶ 33. In our view, this possibility does not alter the Figure 7 disclosure in Theriault that, at any particular point in time, the system associates the monitor ID of each monitor currently being worn by an actor with the identity of that actor. Reply 6–7.

(3) Fourth Element: Summary

In sum, we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of the fourth element of claim 1.

f) *Claim 1, Fifth Element*

The fifth element of claim 1 requires:

Automatically generating a supplemental alert message component comprising non-primary supplemental information relating to the actor and/or the environment and giving context to the at least one emergency situation.

Ex. 1001, 12:22–26. Petitioner relies on the disclosure in Theriault that the page message can include “historical sensor readings.” Pet. 25–26 (citing Ex. 1004, 12:10–15; Young Decl. ¶¶ 81, 83, 188, 209–211). We note that the ’462 Specification specifies “Historical Info” as an example of the claimed supplemental information. Ex. 1001, Fig. 2, 7:2–12. Patent Owner does not address this claim requirement, and we determine that the preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this requirement.

g) *Claim 1, Sixth Element*

The sixth element of claim 1 requires, “electronically sending the primary and supplemental alert message components to at least one designated responder.” Ex. 1001, 12:27–29. Petitioner relies on the disclosure in Theriault that the page message is sent to persons monitoring the subject, such as a parent monitoring a child. Pet. 26–28 (citing Ex. 1004, Fig. 1, 12:12–15, 13:1–2, 13:16–18, 16:10–13; Young Decl. ¶¶ 212–215). Patent Owner does not address this claim requirement, and we determine that the preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this requirement.

h) *Claim 20*

Independent claim 20 is a system claim counterpart to method claim 1, and its requirements, excepting the claim 1 requirement of “storing facts about at least one of the actor and the environment,” are substantially similar to those of claim 1. Ex. 1001, 13:34–59. Claim 20 also includes the additional requirement (also in dependent claim 3) that the supplemental alert message include “data from at least two of the sensors.” Ex. 1001, 12:33–36, 13:58–59. For the most part, Petitioner relies on its analysis of claim 1 for its challenge to claim 20. Pet. 37–39; Young Decl. ¶¶ 250–263. For the multiple sensor requirement, Petitioner relies on the disclosure in Theriault that the page message includes the plural form “sensor readings,” and that a disclosed graph representing data sent via page messages depicts the results of both a sensor measuring the temperature of the monitored subject, and a separate sensor measuring the ambient temperature. Pet. 29–31, 39 (citing Ex. 1004, Figs. 2D, 13, 8:27–9:2, 12:10–15; Young Decl. ¶¶ 103, 220–222, 264).

Patent Owner argues that the graph that Petitioner relies on is not necessarily plotted based on data sent via a single page message, but rather can be generated from a series of messages, each including data from just one sensor. PO Resp. 25. However, Patent Owner concedes that the disclosed graph could also be generated by messages containing multiple sensor data. *Id.* Indeed, Theriault discloses monitors that include multiple sensors (olfactory, temperature, resistivity, connectivity, audio) that are polled simultaneously and packaged in a paging message. Ex. 1004, Figs. 3, 4, 10:3–7, 12:10–15. This proves by a preponderance of the evidence proves

that Theriault would have taught or suggested that its page messages included data from at least two sensors.

i) *Summary, Claims 1 and 20*

In sum, having considered Petitioner’s analysis and Patent Owner’s arguments directed to claims 1 and 20, and upon review of the record, we determine that Petitioner has proved by a preponderance of the evidence that claims 1 and 20 would have been obvious over Theriault.

4. *Dependent claims 2–8, 10, 16, 21–24, 27, and 33–36*

Claim 2 depends from claim 1, and additionally requires “the supplemental information includes data generated by the at least one sensor.” Ex. 1001, 12:30–32. Petitioner relies on the disclosure in Theriault that the page message includes sensor readings. Pet. 28–29 (citing Ex. 1004, Fig. 13, 12:10–15, 17:21–23, 18:21–24; Young Decl. ¶¶ 216–219). Patent Owner does not address this claim requirement, and we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this requirement.

Claim 3 depends from claim 2, and additionally requires “a plurality of sensors are provided in the environment, and . . . the supplemental information includes data generated by at least two of the plurality of sensors.” Ex. 1001, 12:33–36. Petitioner’s evidence, and Patent Owner’s arguments, relating to this requirement are discussed above in connection with the last element of claim 20.

Claim 4 depends from claim 1, and additionally requires “the supplemental information includes status information of the actor.” Ex. 1001, 12:37–38. Claim 5 depends from claim 4, and additionally

requires “the status information includes information indicating at least one state of the actor selected from the group consisting of current health, current location in the environment, current activity, and recent activity.” Ex. 1001, 12:39–44. Claim 22 depends from claim 20 and specifies a commensurate requirement. *Id.* at 13:65–14:3. Petitioner relies on the disclosure in Theriault of detecting alarm conditions based on physiological conditions of the person such as the person’s temperature, blood pressure, and pulse, and on the disclosures of using GPS data to determine the actor’s location and using accelerometer data for sensing activity. Pet. 31–32, 39 (citing Ex. 1004, 7:2–5, 9:25–27, 11:8–13, 13:1; Young Decl. ¶¶ 73, 78, 91, 224, 226, 266). Patent Owner does not address these claim requirements, and we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of these requirements.

Claim 6 depends from claim 1, and additionally requires “the supplemental information indicates an inferred cause of the at least one emergency situation based on an assessed status of the actor.” Ex. 1001, 12:45–47. Claim 23 depends from claim 20 and specifies that an “alert module” performs a commensurate requirement. *Id.* at 14:4–8. Petitioner relies on the disclosure in Theriault of the ability to determine whether a person is being jerked suddenly, or a child is crying in an unusual manner, based on data received from an accelerometer or microphone. Pet. 32–33, 40 (citing Ex. 1004, 7:2–12, 11:8–16, 17:10–13; Young Decl. ¶¶ 74–76, 181–182, 227–228, 267). Patent Owner does not address these claim requirements, and we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of these claim requirements.

Claim 7 depends from claim 1, and additionally requires “the supplemental information includes an indication of a series of events leading to the at least one emergency situation.” Ex. 1001, 12:48–50. Claim 8 depends from claim 1, and additionally requires “the supplemental information includes historical record information.” *Id.* at 12:51–52. Claim 24 depends from claim 20 and specifies a commensurate requirement. *Id.* at 14:9–11. For these claims, Petitioner relies on the disclosure in Theriault that the page message includes historical sensor readings, which data is used to generate graphs depicting the historic occurrences, for example, of crying episodes, excessive motion events, and temperature changes. Pet. 33–34 (citing Ex. 1004, Figs. 13, 10:4–6, 12:10–15; Young Decl. ¶¶ 231–232).

Patent Owner argues that Petitioner has not shown that historical sensor readings lead to an emergency situation, and in addition argues that the ’462 patent “distinguishes sensor readings from the claimed ‘indication of a series of events,’” and also distinguishes historical sensor readings from historical record information. PO Resp. 26–28. However, consistent with the discussion of the third element of claim 1 above, we are persuaded that sensor information is used to “identify[] an existence of at least one emergency situation.” Ex. 1001, 12:8–9. In addition, although the portions of the ’462 patent cited by Patent Owner separately refer to sensor readings, indications of events, and historical record information, we are not persuaded that the ’462 patent disavows an interpretation of “indication of a series of events” or “historical record information” as encompassing a series of sensor readings. Reply 15. Patent Owner argues that the doctrine of claim differentiation precludes Petitioner’s reliance on historical sensor

readings, because the independent claims separately require the use of sensor data. PO Resp. 29. However, these claim requirements refer to current sensor data, not historical sensor readings. In any event, as Petitioner points out, claim differentiation does not preclude different claims from having overlapping meanings. Reply 14 (citing *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1370 (Fed. Cir. 2007)). Accordingly, we are not persuaded by Patent Owner’s arguments regarding claims 7, 8, or 24. We determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of these claim requirements.

Claim 10 depends from claim 1, and additionally requires “the supplemental information includes information relied upon for the identifying of the existence of the at least one emergency situation.” Ex. 1001, 12:56–59. Petitioner relies on the disclosure in Theriault of the use of sensor data to determine whether an alarm condition exists. Pet. 34–35 (citing Ex. 1004, Fig. 5, 11:22–25, 12:12–15; Young Decl. ¶¶ 82–83, 230, 237–240). Patent Owner does not address this claim requirement, and we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this requirement.

Claim 16 depends from claim 1, and additionally requires:

wherein identifying the existence of the at least one emergency situation includes:

- assessing a current situation of the actor and/or the environment based on sensory data provided by the at least one sensor located in the environment; and
- comparing the assessed current situation against at least one reference situation representing a predefined emergency situation, wherein a similarity between

the current situation assessment and the at least one reference situation is indicative of an existence of an emergency situation

Ex. 1001, 13:13–23. Claim 34 depends from claim 20, and additionally requires, “the alert module is further adapted to compare sensory data provided by the sensors against a reference sequence of sensor events representing a predefined emergency situation, and identify an existence of at least one emergency situation when sensory data coincides with the reference sequence of sensor events.” Ex. 1001, 14:63–15:2. Claim 35 depends from claim 20, and additionally requires:

- a situation assessment module interfaced with the alert module and adapted to assess a current situation of the actor and/or the environment based on data provided by the sensors;

- wherein the alert module is adapted to compare the assessed current situation against at least one reference situation representing a predefined emergency situation; and

- wherein the alert module is adapted to identify an existence of at least one emergency situation when there is similarity between the current situation assessment and the at least one reference situation.

Ex. 1001, 15:3–16.

For claims 16, 34, and 35, Petitioner relies on the disclosure in Theriault of the ability to determine whether a person is being jerked suddenly, or a child is crying in an unusual manner, based on data received from an accelerometer or microphone. Pet. 35–37, 40–41 (citing Ex. 1004, 7:2–5, 11:14–16, 11:30–12:1; Young Decl. ¶¶ 243–245, 247, 271–276). Patent Owner does not address this claim requirement, and we determine

that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of these claim requirements.

Claim 21 depends from claim 20, and additionally requires, “the alert module is further adapted to identify an emergency situation relating to the actor or the environment and send the alert message to at least one designated responder.” Ex. 1001, 13:60–64. Petitioner relies on its analysis of the third and sixth elements of claim 1, discussed above, which are commensurate in scope. Pet. 39 (citing Young Decl. ¶ 265). Patent Owner does not address this claim requirement, and we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this claim requirement.

Claim 27 depends from claim 20, and additionally requires, “the alert module is adapted to generate the supplemental information to include information based on sensory data gathered close in time to the occurrence of the emergency situation.” Ex. 1001, 14:20–24. Petitioner relies on the disclosure in Theriault that the microprocessor periodically polls the sensors for data and uses that data to trigger alarm conditions. Pet. 40 (citing Ex. 1004, 10:4–6; Young Decl. ¶ 269). For example, “a temperature sensor may be polled every 10 minutes, while a microphone may be polled one hundred times every second.” Ex. 1004, 10:9–10. Patent Owner does not address this claim requirement, and we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this claim requirement.

Claim 33 depends from claim 20, and additionally requires, “the alert module is further adapted to verify whether the at least one designated responder has received a sent alert message.” Ex. 1001, 14:59–62.

Petitioner relies on its analysis of the sixth element of claim 1, discussed above, together with the opinion of its expert, Dr. Young, that:

A POSITA would have understood that it would have been advantageous for a system to verify receipt of a communication transmitted via cell phone or the internet (WWW). Furthermore, a POSITA would have understood a communication from a first device to a second device via cell phone or the internet provides a verification from the second device to the first device.

Pet. 40 (citing Young Decl. ¶ 270). Patent Owner does not address this claim requirement, and we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this claim requirement.

Claim 36 depends from claim 20, and additionally requires, “a database interfaced with the alert module for storing facts about the actor and/or environment; wherein the alert module is adapted to access the facts as part of identifying the existence of the at least one emergency situation.” Ex. 1001, 15:17–23. Petitioner relies on the disclosure in Theriault that sensor data, rules, temperature thresholds, expected audio profiles, particular frequency envelopes, particular frequency contents, particular levels of intensities, and particular areas are stored and used to determine whether an alarm condition exists. Pet. 41 (citing Young Decl. ¶¶ 277–281).

For claim 36, Patent Owner repeats its arguments regarding “storing facts about the actor and/or environment,” which, as discussed for independent claim 1, we do not find persuasive. PO Resp. 23. Patent Owner also argues that Petitioner has failed to show that Theriault would have taught or suggested the required “database interfaced with the alert module,” which stores the facts. *Id.* However, Theriault discloses non-

volatile and random access storage components included in the described monitors, which are updated when, for example, the above-discussed temperature ranges (*i.e.*, the stored facts) are changed via a setup procedure. Ex. 1004, Figs. 3, 14, 15, 9:11–18, 18:25–28, 19:14–22. Petitioner has also presented evidence (in the context of claim 1) that Theriault compares the stored ranges with sensor data to detect alarm conditions, and this comparison is performed by the microprocessor in the monitor. *Id.*, Figs. 3, 4, 9:19–20, 10:3–15. We note that the '462 patent states that the claimed alert module can be software running on a microprocessor. Ex. 1001, 4:21–31. Given these disclosures, we credit Petitioner's expert's testimony that a person of ordinary skill in the art would have understood that the facts about the actor and/or environment would have been stored in a database as required. Young Decl. ¶ 281; Reply 13. Accordingly, we determine that a preponderance of the evidence proves that Theriault would have taught or suggested the subject matter of this claim requirement.

In sum, having considered Petitioner's analysis and Patent Owner's arguments, and upon review of the record, we determine that Petitioner has proved by a preponderance of the evidence that claims 2–8, 10, 16, 21–24, 27, and 33–36 would have been obvious over Theriault.

E. Ground 2: Obviousness of Claims 11 and 13 Over Theriault and Mault

Petitioner challenges claims 11 and 13 as obvious over the combination of Theriault and Mault. Pet. 41–47. Similar to Theriault, Mault discloses a monitoring system allowing remote monitoring of a physiological parameter of a subject using a sensor system, with a computing device receiving and analyzing the sensor data, and transmitting

the data to a caregiver as a remote location. Ex. 1006, Abstr., ¶¶ 2, 17, 36. For example, Mault discloses providing an alert to a caregiver when the sensed temperature of a subject is outside a preferred range so that emergency medical procedures may be started, and in particular sending alerts to different people (e.g., caregiver, physician, etc.) based upon a comparison between the temperature of the person being monitored and one or more thresholds (e.g., ranges, etc.). *Id.* ¶ 66.

Petitioner argues that one of ordinary skill would have been motivated to adopt in the monitoring system of Theriault the features in Mault regarding alerting different people depending on received sensor data, given that both references are directed to providing alerts based on the remote monitoring of a person, and given the apparent advantages of issuing pages to different remote persons based upon a monitored condition as taught by Mault. Pet. 44–46 (citing Young Decl. ¶¶ 115–120).

Claim 11 depends from claim 1, and additionally requires “formulating a response plan for responding to the at least one emergency situation.” Ex. 1001, 12:60–62. Claim 13 depends from claim 11, and additionally requires “wherein formulating the response plan includes selecting at least one responder from a plurality of designated responders.” Ex. 1001, 12:65–67. Petitioner relies on the disclosure in Mault of sending alerts to different people (e.g., caregiver, physician, etc.) depending upon whether the sensed data falls within different ranges. Pet. 46–47 (citing Ex. 1006 ¶¶ 43, 66; Young Decl. ¶¶ 119–120, 285, 287–288).

We are persuaded that it is reasonable to characterize selecting different persons to notify, depending on different sensor values, such as different temperature ranges, as an example of formulating a response plan.

Moreover, Petitioner has articulated sufficient reasoning with rational underpinning supporting why one of ordinary skill would have been motivated to incorporate the pertinent features of Mault into the system of Theriault. Patent Owner does not address this ground challenging claims 11 and 13. Accordingly, upon review of the record, we determine that Petitioner has proved by a preponderance of the evidence that claims 11 and 13 would have been obvious over the combination of Theriault and Mault.

F. Ground 3: Obviousness of Claim 17 Over Theriault and Jacobsen

Petitioner challenges claim 17 as obvious over the combination of Theriault and Jacobsen. Pet. 47–53. Jacobsen is directed to a “system for monitoring the physical activity, body position and occurrence of falls of a person being monitored.” Ex. 1008, 1:4–7. Jacobsen provides for physiological condition sensors, or position sensors that can detect the position of the person wearing a monitoring unit to detect whether the person is prone, supine, vertical, or on a side — thus allowing a processor to determine if a fall has occurred and, if so, to issue an alert. *Id.* at 3:48–56, 4:49–56, 5:37–43, 6:50–53.

Petitioner argues that one of ordinary skill would have been motivated to adopt the position sensor arrangement of Jacobsen to the monitoring system of Theriault, given that both references are directed to providing alerts based on the remote monitoring of a person, and given the apparent advantages of detecting whether a person has fallen as taught by Jacobsen. Pet. 50–52 (citing Young Decl. ¶¶ 136–142).

Claim 17 depends from claim 1, and additionally requires, “wherein identifying the existence of the at least one emergency situation includes:

inferring the existence of the emergency situation from circumstantial information about the actor and/or the environment.” Ex. 1001, 13:24–28. Petitioner relies on the disclosures in Theriault and Jacobsen of using sensor information to infer that a subject has been shaken or has fallen. Pet. 52–53 (citing Ex. 1004, 11:11–13; Ex. 1008, 5:37–43; Young Decl. ¶¶ 140–142, 290–294).

The above-described disclosures of Theriault and Jacobsen regarding detecting whether a person has been shaken or has fallen are reasonably characterized as inferring the existence of an emergency situation from circumstantial information about the actor and/or environment. Moreover, Petitioner has articulated sufficient reasoning with rational underpinning supporting why one of ordinary skill would have been motivated to incorporate the pertinent features of Jacobsen into the system of Theriault. Patent Owner does not address this ground challenging claim 17. Accordingly, upon review of the record, we determine that Petitioner has proved by a preponderance of the evidence that claim 17 would have been obvious over the combination of Theriault and Jacobsen.

G. Ground 4: Obviousness of Claim 19 Over Theriault and Henderson

Petitioner challenges claim 19 as obvious over the combination of Theriault and Henderson. Pet. 53–57. Henderson discloses monitoring sound when a child or older person is left in the care of a third person, with the sounds being recorded for brief time periods for later playback. Ex. 1012, 1:9–22, 2:1–13, 6:1–11.

Petitioner argues that one of ordinary skill would have been motivated to adopt the sound recording capability of Henderson to the monitoring

system of Theriault, given that both references are directed to providing alerts based on the remote monitoring of a person, and given the apparent advantages of providing sound recordings as taught by Henderson. Pet. 55–56 (citing Young Decl. ¶¶ 146–152).

Claim 19 depends from claim 1, and additionally requires “the supplemental information includes a segment of recorded audio.” Ex. 1001, 13:32–33. Petitioner relies on the disclosure in Henderson of recording and playing back sound excerpts. Pet. 56–57 (citing Ex. 1012, 2:1–13; Young Decl. ¶ 295). Patent Owner argues that Petitioner has not established that the combination would have resulted in the sound recording being included in the claimed supplemental information, because Theriault only discloses processing or sending live audio, and Henderson only records audio for later playback. PO Resp. 30–32. However, Theriault broadly teaches that the supplemental information can consist of detailed information regarding the nature of the alarm condition, including audio data sensed by microphones. Ex. 1004, 12:13–14, 10:10. We are persuaded that that disclosure, in combination with the sound recording teachings of Henderson, would have taught or suggested the subject matter of this claim. Accordingly, upon review of the record, we determine that Petitioner has proved by a preponderance of the evidence that claim 19 would have been obvious over the combination of Theriault and Henderson.

H. Grounds 5, 6 and 7: Obviousness of Claims 1–8, 10, 11, 16, and 17 Over Jacobsen; Obviousness of Claims 13, 20–24, 27, and 33–36 Over Jacobsen and Mault; Obviousness of Claim 19 Over Jacobsen and Henderson

The parties agree that Jacobsen does not teach or suggest the requirement of independent claims 1 and 20, “storing facts about at least one of the actor and the environment,” as we construe that phrase. Tr. 13–14, 72–73. Petitioner relies only on Jacobsen for this aspect of the claims, and only if this claim requirement is construed to only require a stored fact about either the actor or the environment. Reply 15–16. As discussed above, Jacobsen only provides for sensors that can detect the position or physiological condition of the person wearing a monitoring unit. Pet. 59–60. This at most discloses storing facts about the actor. Accordingly, we determine that Petitioner has not proved by a preponderance of the evidence that any of the challenged claims are unpatentable based on Grounds 5, 6, or 7.

IV. CONCLUSION⁶

For the reasons above, Petitioner has shown by a preponderance of the evidence that claims 1–8, 10, 11, 13, 16, 17, 19–24, 27, and 33–36 of the '462 patent are unpatentable, as summarized in the following table.

Claims	35 U.S.C. §	References/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–8, 10, 16, 20–24, 27, 33–36	103(a)	Theriault	1–8, 10, 16, 20–24, 27, 33–36	
11, 13	103(a)	Theriault, Mault	11, 13	
17	103(a)	Theriault, Jacobsen	17	
19	103(a)	Theriault, Henderson	19	
1–8, 10, 11, 16, 17	103(a)	Jacobsen		1–8, 10, 11, 16, 17
13, 20–24, 27, 33–36	103(a)	Jacobsen, Mault		13, 20–24, 27, 33–36
19	103(a)	Jacobsen, Henderson		19
Overall Outcome			1–8, 10, 11, 13, 16, 17, 19–24, 27, 33–36	

⁶ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, based on a preponderance of the evidence, claims 1–8, 10, 11, 13, 16, 17, 19–24, 27, and 33–36 of U.S. Patent No. 7,145,462 B2 are held to be unpatentable; and

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

IPR2021-00494
Patent 7,145,462 B2

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