

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INFOBIONIC, INC.,
Petitioner,

v.

BRAEMAR MANUFACTURING, LLC,
Patent Owner.

Case IPR2017-00796
Patent RE43,767 E

Before PHILLIP J. KAUFFMAN, KEVIN W. CHERRY, and
MICHAEL L. WOODS, *Administrative Patent Judges*.

WOODS, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

InfoBionic, Inc. (“Petitioner”), filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of all claims, namely, claims 1–9 and 11–26 of U.S. Patent No. RE43,767 E (Ex. 1001, “the ’767 patent”). Pet. 1, 3; *see also* Ex. 1001, 8:31–33 (indicating that claim 10 has been cancelled). Braemar Manufacturing, LLC (“Patent Owner”), filed a Preliminary Response (Paper 10, “Prelim. Resp.”) to the Petition. We instituted an *inter partes* review of claims 1–9 and 11–26 of the ’767 patent as unpatentable under § 103. Paper 11, 2 (“Decision to Institute” or “Dec.”); *see also* Paper 34, 2 (issuing order to institute on all grounds).

After institution of trial, Patent Owner filed a Response (Paper 14, “PO Resp.”), to which Petitioner replied (Paper 18, “Pet. Reply”). With our authorization, Patent Owner also filed a Sur-Reply (Paper 24, “PO Sur-Reply”) to address arguments made by Petitioner in its Reply, and Petitioner filed a Sur-Sur-Reply (Paper 28, “Pet. Sur-Sur-Reply”) in response to Patent Owner’s Sur-Reply.

Oral argument was conducted on May 1, 2018, and a transcript of the hearing is entered in the record. Paper 36 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 318(a). After considering the evidence and arguments of both parties, and for the reasons set forth below, we determine that Petitioner met its burden of showing, by a preponderance of the evidence, that claims 1–9 and 11–26 of the ’767 patent are unpatentable.

II. BACKGROUND

A. The '767 patent (Ex. 1001)

The '767 patent is a reissue of U.S. Patent No. 6,694,177, and is titled CONTROL OF DATA TRANSMISSION BETWEEN A REMOTE MONITORING UNIT AND A CENTRAL UNIT. Ex. 1001, (54), (64).

The '767 patent describes a method for remotely monitoring a patient's physiological condition. *See id.* at 1:12–15, 56–57; 2:1–3. In particular, the '767 patent purports to improve the efficiency of communication between a remote monitoring unit and a central monitoring unit (*see id.* at 1:66–2:37) and improve upon prior art systems that continuously monitor physiological characteristics of the patient (*id.* at 1:18–48). In doing so, the '767 patent seeks to conserve battery power, reduce cellular data transfer and its associated charges, and reduce inefficient usage of medical personnel. *Id.*

To illustrate the '767 patent's monitoring apparatus, we reproduce Figure 2, below:

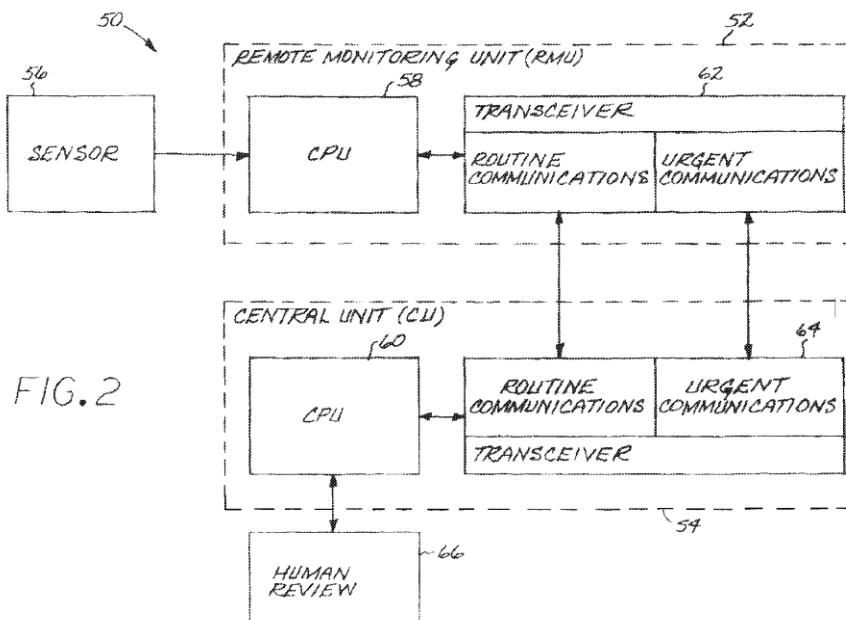


Figure 2 is a simplified schematic block diagram depicting monitoring apparatus 50 with remote monitoring unit (“RMU”) 52 (which is carried by a patient), central unit (“CU”) 54, and sensor 56. Ex. 1001, 3:33–35, 48–56. Sensor 56 communicates with RMU 52 (*id.* at 4:1–3) and measures a physiological characteristic of a patient (*id.* at 3:55–56), such as heart rate, blood pressure, and respiration (*see id.* at 3:60–62). RMU 52 has central processing unit (“CPU”) 58 and transceiver 62, while CU 54 has CPU 60 and transceiver 64. *Id.* at 4:1–17. CU 54 may also be provided with an interface for human (e.g., physician) review 66 of the action recommended by the CU’s CPU 60. *Id.* at 4:38–41. RMU 52 and CU 54 are placed in two-way communication with each other through transceivers 62, 64. *Id.* at 4:13–17.

As mentioned above, the ’767 patent purports to improve upon prior art systems and methods by reducing unnecessary data transfers. *See id.* at 2:20–26. We reproduce Figure 1 of the ’767 patent, below

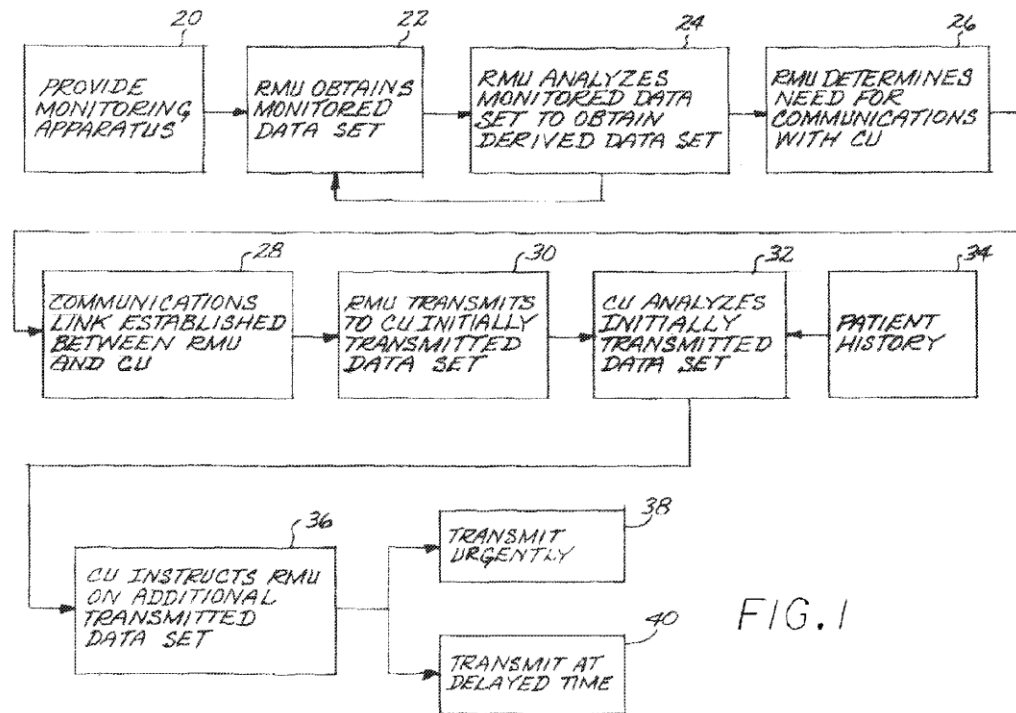


Figure 1 is a block flow diagram that describes the “method for practicing the present invention.” *Id.* at 3:31–32. At step 22, RMU 52 uses sensor 56 to monitor a patient’s physiological data, the “monitored data set.” *Id.* at 4:42–47. At step 24, RMU 52 then analyzes the monitored data set to obtain a “derived data set,” which is typically smaller than the monitored data set. *Id.* at 4:48–65. At steps 26, 28, and 30, if RMU 52 (via CPU 58) determines that the derived data set indicates a possible emergency (e.g., the patient’s heart rate exceeds a limit), RMU 52 transmits “initially transmitted data set” to CU 54 *immediately*. *Id.* at 4:65–5:25. This initially transmitted data set may be the same or different from the derived data set. *Id.* at 5:29–30. At step 32, CU 54 then analyzes this initially transmitted data set to determine if more information is needed, and whether that information is needed immediately or not. *See id.* at 5:39–6:14. If more information is needed urgently, at steps 36, 38, CU 54 instructs RMU 52 to provide an

“additional transmitted data set” immediately. *Id.* at 5:55–6:7. If CU 54 determines that the additional transmitted data set is not needed urgently, and RMU 52 sends the additional transmitted data set at a later, delayed time (step 40). *Id.* at 5:55–6:14.

In summary, the ’767 patent describes the following sets of information: (1) a monitored data set; (2) a derived data set; (3) an initially transmitted data set; and (4) an additional transmitted data set. By delaying non-urgent “additional transmitted data sets,” the ’767 patent purports to conserve battery power, reduce cellular data transfer—including its associated charges—and reduce inefficient usage of medical personnel. *See id.* at 1:44–48; *see also id.* at 2:65–3:4 (“[T]he central monitoring unit may instruct the remote monitoring unit to store and then transmit the additional transmitted data set at a later time over the land-line telephone terminal when such a connection is available or the radio frequency telephone connection when transmission costs are lower (i.e., off-peak hours).”)

B. Related Matters

Petitioner is a defendant in a lawsuit involving the ’767 patent. Pet. 2 (referencing *CardioNet, LLC et al. v. InfoBionic, Inc.*, No. 1:15-cv-11803 (D. Mass.)); Paper 9, 2.

C. Illustrative Claims

Claims 1, 9, 16, 17, and 18 are independent. Ex. 1001, 7:1–10:63. Claim 17, reproduced below, illustrates the claimed subject matter (with emphases added to particular limitations discussed in this Decision):

17. A method of monitoring a patient, comprising the steps of providing a monitoring apparatus including
a remote monitoring unit associated with the patient, the remote monitoring unit including a sensor that measures a physiological characteristic of the patient,
a central unit, and
a communications device which selectively establishes a communications link between the remote monitoring unit and the central unit based on a condition sensed;
the remote monitoring unit obtaining a monitored data set for the patient;
the remote monitoring unit analyzing the monitored data set to obtain a derived data set from the monitored data set;
the remote monitoring unit determining from the derived data set that communication with the central unit is required;
establishing a communications link with the central unit;
the remote monitoring unit transmitting to the central unit an initially transmitted data set related to the monitored data set;
the central unit analyzing the initially transmitted data set to determine whether an additional data set related to the monitored data set is required to be transmitted by the remote monitoring unit; and
the central unit instructing the remote monitoring unit that the additional data set related to the monitored data set is to be transmitted from the remote monitoring unit to the central unit and as to a time at which the additional data set is to be transmitted based on the condition sensed.

Id. at 9:22–51 (original emphases and bracketed portions omitted, new emphases added).

D. References

Petitioner relies on the following references:

Name	Reference	Ex. No.
Ferguson	US 6,454,708 B1, issued Sept. 24, 2002	1004
Kehr	WO 98/38909, published Sept. 11, 1998	1005
Yasushi	US 6,485,418 B2, issued Nov. 26, 2002	1006
Surwit	US 6,980,958 B1, issued Dec. 27, 2005	1007

Name	Reference	Ex. No.
Walker	WO 98/50873, published Nov. 12, 1998	1008

E. Grounds Asserted

Petitioner contends that claims 1–9 and 11–26 of the '767 patent are unpatentable under the following grounds:

Ground	Prior Art	Claim(s)
1	Ferguson and Kehr	1–6, 9, 11–14, 16–20, 22, 24, and 26
2	Ferguson, Kehr, and Yasushi	7, 15, 21, 23, and 25
3	Ferguson, Kehr, and Surwit	8
4	Walker and Kehr	1–6, 9, 11–14, 16–20, 22, 24, and 26
5	Walker, Kehr, and Yasushi	7, 15, 21, 23, and 25

Pet. 3.

Petitioner also submits the declaration testimony of Dr. Robert T. Stone (Ex. 1002) in support of the grounds. Pet. vi.

F. Decision to Institute

On July 31, 2017, we instituted review of all challenged claims under Grounds 1–3. Paper 11 (“DI”), 2. As explained in our DI, however, we did not find persuasive Petitioner’s challenges under Grounds 4 and 5. *See id.* at 35 (“Petitioner has not demonstrated a reasonable likelihood that it will prevail with regards to its challenge . . . under Ground 4 or . . . under Ground 5.”). Rather, we found persuasive Patent Owner’s arguments in response to those grounds. *See id.* at 32 (citing Prelim. Resp. 35–36 (“Patent Owner’s argument is persuasive”)); *see also id.* at 27–34.

On May 3, 2018, in response to the Supreme Court’s decision in *SAS*, we issued an order (“Order”) modifying our institution decision to institute on all of the grounds presented in the Petition, including Grounds 4 and 5.

Paper 34, 2 (citing *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348 (2018)).

On May 11, 2018, we held a conference call with the parties to discuss the impact of the Order in this proceeding, specifically, to discuss whether additional briefing would be necessary to respond to newly-instituted Grounds 4 and 5. *See* Paper 35, 2. During the conference call, Patent Owner expressed concern that its arguments presented in its Preliminary Response were not similarly presented in its Patent Owner Response, and even though we determined that those arguments were persuasive in our DI, those same arguments were waived as not being presented in its Patent Owner Response. *See id.* at 2–3 (citing Paper 12, 3).

To address Patent Owner’s concerns, while keeping the proceeding on-schedule and without the need for additional briefing, we issued a second order. *Id.* In this second order, we established that the Board would consider Patent Owner’s arguments presented in its Preliminary Response (responding to Grounds 4 and 5, only) as if they had been similarly presented in its Patent Owner Response, and that those arguments would be considered by the Board in this Final Written Decision. *See id.* at 3

III. ANALYSIS

A. Claim Construction

We determine that no claim term requires express construction for the purposes of this Decision. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) (“[C]laim terms need only be construed ‘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)).

B. 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 at the time the invention was made to a person having ordinary skill in the art to which such subject matter pertains.” 35 U.S.C. § 103(a). The question of obviousness under 35 U.S.C. § 103 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) objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

C. Person of Ordinary Skill in the Art

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham*, 383 U.S. at 17.

Petitioner proposes that a person of ordinary skill in the art (“POSITA”) “would have at least a bachelor’s degree in a suitable engineering field . . . or equivalent proficiency, and at least two to three years of experience in the research and/or development of remote patient monitoring systems . . . where more education may substitute for relevant experience and vice versa.” Pet. 6–7 (citing Ex. 1002 ¶¶ 13–14).

Patent Owner, on the other hand, proposes that a POSITA would have been a skilled individual with an electrical engineering undergraduate degree (or its equivalent) with at least two years of experience in the design and development of ECG telemetry devices or similar remote monitoring and telemetry

devices and/or an undergraduate degree in engineering (or its equivalent) with at least four years of experience in the design and development of ECG telemetry devices or similar remote monitoring and telemetry devices.

PO Resp. 10–11. Patent Owner also acknowledges that for “purposes of [its Patent Owner Response,] the differences between Petitioner’s and Patent Owner’s position do not appear to be material.” *Id.*

Based on our review of the ’767 patent, the types of problems and solutions described in the ’767 patent and applied prior art, and the testimony of Dr. Stone and Dr. Fernald, we adopt Petitioner’s asserted level of ordinary skill and find that a POSITA

at the time of the alleged invention would have at least a bachelor’s degree in a suitable engineering field (e.g., mechanical or electrical), or equivalent proficiency, and at least two to three years of experience in the research and/or development of remote patient monitoring systems, such as cardiac remote patient monitoring systems, where more education may substitute for relevant experience and vice versa. Stone Decl. ¶¶ 13-14. This education and experience would include a solid familiarity with the communication between components of a patient monitoring system.

Pet. 6–7 (citing Ex. 1002 ¶¶ 13–14). We also agree with Patent Owner that any differences in the parties’ proposed level of ordinary skill does not impact our analysis. See PO Resp. 8.

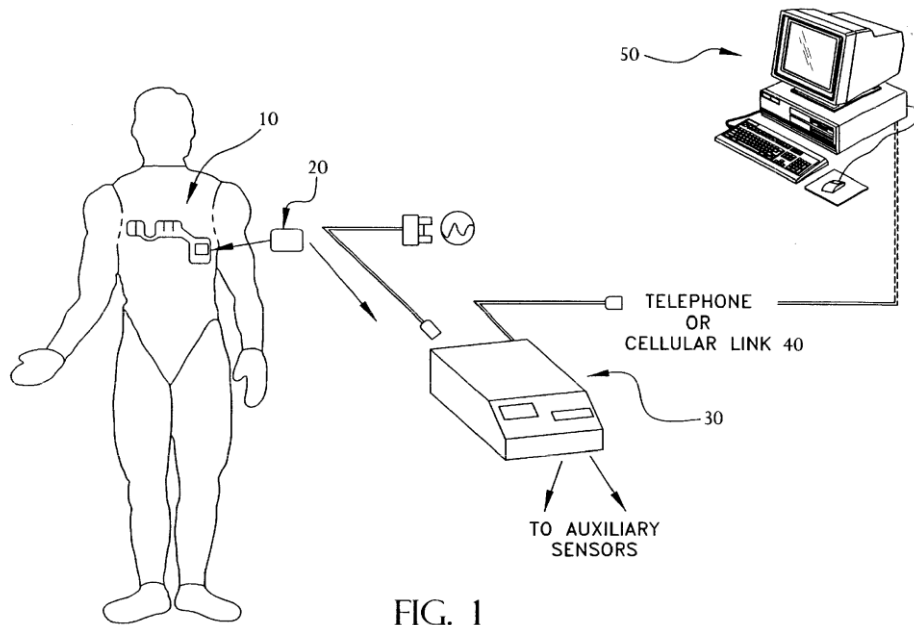
D. Ground 1: Ferguson and Kehr

Petitioner contends that claims 1–6, 9, 11–14, 16–20, 22, 24, and 26 are unpatentable over Ferguson and Kehr. Pet. 14. Our Decision begins with a summary of the cited art and a summary of Petitioner’s challenge,

followed by our analysis including consideration of Patent Owner's arguments.

1. *Ferguson (Ex. 1004)*

Ferguson describes a patient monitoring system. Ex. 1004, 8:27–28. To illustrate Ferguson's system, we reproduce Figure 1, below:



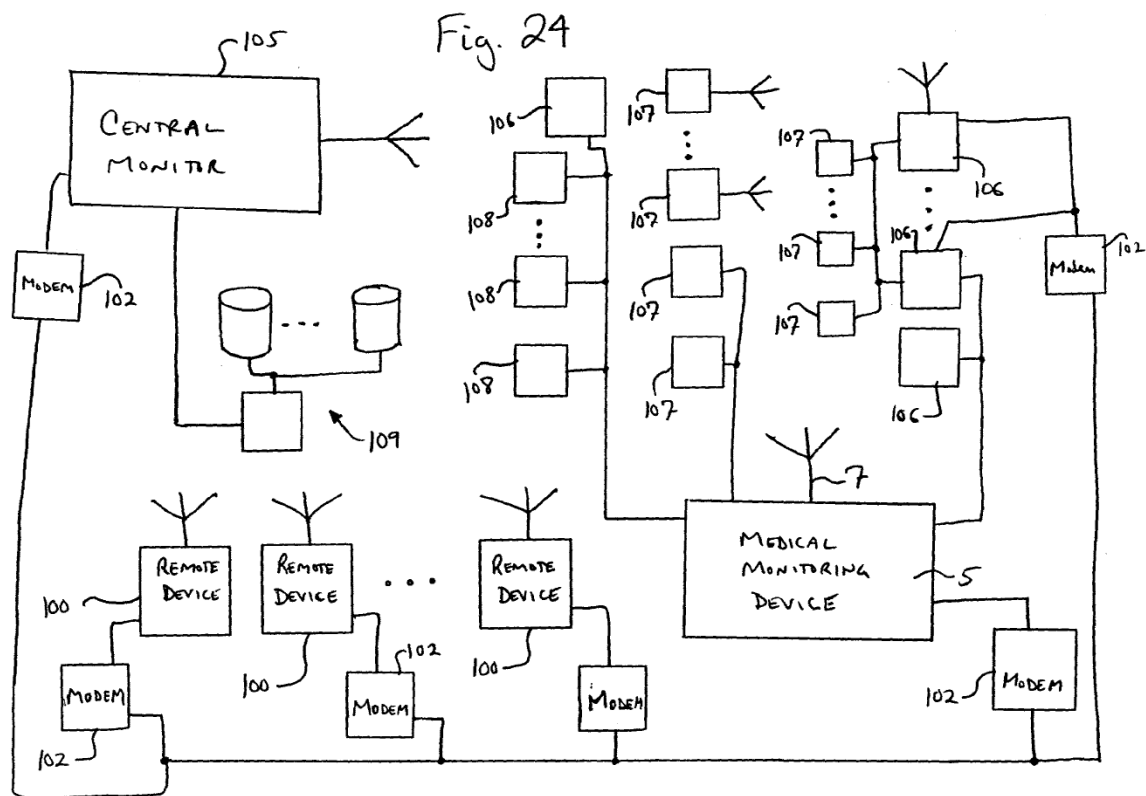
As depicted in Figure 1, Ferguson's system includes disposable sensor band 10 for measuring a patient's vital signs, and memory card 20 for storing the associated data. *Id.* at 7:13–15; 8:29–33. The data may also be transmitted to base station unit 30. *Id.* at 8:35–37. Base station 30 is powered by a selectable 110/230V power supply and includes a modem connection (either a land telephone line or cellular link 40) for transmitted information. *Id.* at 11:10–15. Base station 30 may also contain software algorithms to enable the calculation of heart rate and respiration rate from the data signals. *Id.* at 12:19–22; 15:41–45. Base station unit 30 may then transmit the data over telecommunications link 40 to remote monitoring

station 50. *Id.* at 8:36–40. Once a connection has been established, both ends of communications link 40 will listen for commands. *Id.* at 16:10–13. At station 50, an operator (e.g., physician or nurse) reviews the patient data and can request base station 30 to send more detailed data, and if the requested data is available, the base station will respond. *Id.* at 13:5–10, 29–31; 14:38–42. Remote monitoring station 50 may request an immediate data upload. *Id.* at 13:5–10. Remote monitoring station 50 may also set certain threshold events (e.g., high heart rate) to be flagged by base station 30, as well (*id.* at 22:5–21) and when such event is detected by base station 30, a recording session that records monitored parameters may occur. *Id.* at 14:21–25.

2. *Kehr (Ex. 1005)*¹

Kehr describes a device, system, and method for “managing and monitoring the administration of medical treatment regimens.” Ex. 1005, 6. To illustrate Kehr’s system, we reproduce Figure 24 of Kehr, below:

¹ Our citations to Exhibit 1005 will be to the reference’s native page numbers.



In the particular embodiment of Figure 24, Kehr describes a system with medical monitoring device 5, which interfaces with sensors 107 (e.g., a heart monitor or glucose monitor) associated with a patient. *Id.* at 44–45. Central monitor 105 functions as a command and control center and may wirelessly obtain monitored data from sensors 107. *See id.* at 46. In the example where sensor 107 is a glucose level sensor, and if the patient’s glucose level presents a danger, central monitor 105 may activate an implanted insulin pump to release insulin into the patient’s bloodstream. *Id.*

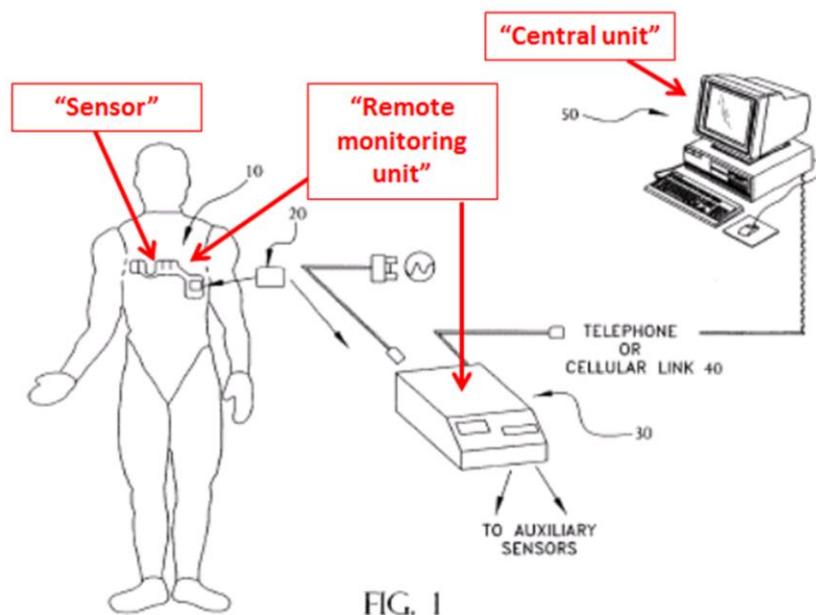
Kehr also discloses that the “timing of the transmission depends on the disease being treated and the treatment regimen being administered” (*id.* at 36) and further describes, as an example, “if the disease being treated is a congestive heart failure condition, and a single response data point indicates that the patient is suffering moderate or severe chest pain, then the device

will immediately transmit the response data to the healthcare provider” (*id.* at 35).

3. Independent Claim 1

a) Apparatus with RMU, CU, and Communication Device

In addressing the monitoring apparatus, Petitioner relies on Ferguson and submits an annotated copy of Ferguson’s Figure 1, which we reproduce below (Pet. 18–20):



As annotated by Petitioner in Figure 1, Ferguson’s sensor band 10, auxiliary sensors, and base station 30 collectively correspond to the claimed “remote monitoring unit,” or RMU. *Id.* at 18 (citing Ex. 1002 ¶¶ 120–122). Petitioner also relies on Ferguson’s remote monitoring station 50 as corresponding to the claimed “central unit” (or CU), and relies on Ferguson’s modems as corresponding to the claimed “communications device.” *Id.* at 20–21.

In addressing the claimed “sensor that measures a physiological characteristic of the patient,” Petitioner relies on Ferguson’s disclosure that sensor band 10 is preferably worn on a patient’s chest for measuring vital signs, and transmits the measured vital signs to base station unit 30. *Id.* at 18–20 (citing Ex. 1004, 8:29–40).

b) Monitored Data Set

In addressing the claimed “[RMU] obtaining a monitored data set,” Petitioner relies on Ferguson’s disclosure that its sensor—sensor band 10—measures, for example, ECG and respiration data, and it is this data that corresponds to the claimed “monitored data set.” *See* Pet. 22 (citing in part Ex. 1004, 8:44–49).

c) Derived Data Set

In addressing the claimed RMU “analyzing the monitored data set to obtain a derived data set,” Petitioner cites to Ferguson’s disclosure that RMU calculates heart rate and respiration rate from the ECG and respiration signals, and it is this calculated heart rate and respiration rate that correspond to the claimed “derived data set.” *Id.* at 22 (citing Ex. 1004, 12:19–28, 15:41–45).

In addressing the limitation that the “[RMU determines] from the derived data set that communication with the [CU] is required,” Petitioner relies on the testimony of Dr. Stone and asserts that when Ferguson’s RMU flags an event for download, it determines that communication is required. *Id.* at 23 (citing Ex. 1002 ¶ 143). Petitioner cites to Ferguson’s disclosure that upon detection of a threshold event (or threshold violation, such as a

low heart rate), its RMU determines that the event and its related data “need to be communicated to the CU.” *Id.* at 23–24 (citations omitted). Ferguson discloses that flagging events “will be stored on the base station unit 30, and new events will be downloaded whenever the remote monitoring unit 50 and base station unit 30 connect.” Ex. 1004, 22:19–21 (emphasis omitted).

In addition to asserting that Ferguson discloses this limitation (see Pet. 23–24; Ex. 1002 ¶ 147), Petitioner asserts in the alternative that “even if Ferguson did not teach or suggest that its base station (RMU) determines from the derived data set (e.g., heart rate) that communication with the CU is required, that well-known capability would have been an obvious modification” (*id.* at 24). Petitioner reasons that a POSITA “would have been motivated to modify Ferguson’s base station so that it ‘initiate[s] a dial-up’ when an event is detected (rather than waiting for the next scheduled transmission) in order to promptly notify medical personnel that the patient has suffered an event that may warrant immediate care.” *Id.* at 25 (citing Ex. 1002 ¶ 147).

d) Establishing a Communications Link

In addressing the claimed “establishing a communications link with the [CU],” Petitioner asserts that Ferguson teaches this step and cites to Ferguson’s disclosure that “the base station unit 30 could initiate the dial-up for uploading the stored data.” Pet. 25 (citing Ex. 1004, 13:16–18). Petitioner also submits an annotated copy of Ferguson’s Figure 5A, which we reproduce below:

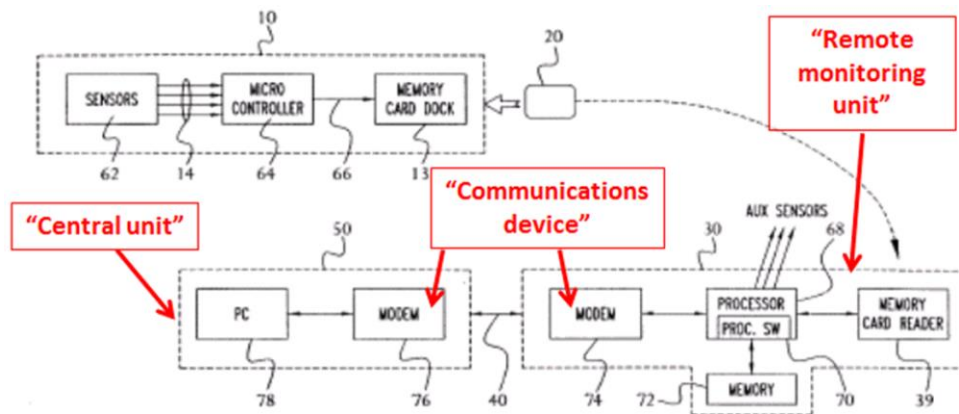


FIG. 5A

Figure 5A is a block diagram of Ferguson's system, with annotations by Petitioner in support of the contention that Ferguson's "communications device" "selectively establishes a communication," as its "RMU" initiates a dial up connection with "CU" in order to establish a network connection. *Id.* at 21 (citing Ex. 1004, 13:16–18, 16:7–13); Ex. 1004, 7:34–36. Ferguson explicitly discloses that "data is uploaded over communications link 40 using modem 74 of the base station unit 30 and modem 76 of the remote monitoring station 50." Ex. 1004, 15:45–50.

e) Initially Transmitted Data Set

In addressing the claimed "[RMU] transmitting to the [CU] an initially transmitted data set related to the monitored data set," Petitioner asserts that Ferguson teaches this step, as its RMU "creates a summary of the collected data for transmission" and transmits this summary to the CU. Pet. 26 (citing Ex. 1004, 12:28–31). In support of this assertion, Dr. Stone testifies that "[t]he summary of collected data and event flags are related to the monitored data set (i.e., collected data) and therefore correspond to the claimed initially transmitted data set." Ex. 1002 ¶ 155.

f) Additional Data Set

In addressing the claimed “[CU] analyzing the initially transmitted data set to determine whether an additional data set” is required, Petitioner asserts that Ferguson teaches this step, and cites to Ferguson’s disclosure of CU’s interface to allow human review. Pet. 26–27 (citing Ex. 1001, 4:38–41, 5:39–54). Petitioner points out that the operator may then determine if more detailed information is necessary (*id.* at 27 (citing Ex. 1001, 14:38–40)) and, if so, Ferguson’s “remote monitoring station 50 could initiate a data upload of the designated data from the base station unit 30.” *Id.* at 27 (citing Ex. 1004, 14:38–42). Petitioner cites to the testimony of Dr. Stone and asserts that Ferguson’s more detailed information corresponds to the claimed “additional data set.” *Id.* (citing Ex. 1002 ¶ 162).

g) Time at Which the Additional Data Set is to be Transmitted

In addressing the claimed “[CU], when the additional data set related to the monitored data set is required, instructing the [RMU] . . . as to a time at which the additional data set is to be transmitted,” Petitioner relies on a combination of Ferguson and Kehr. See Pet. 28 (emphasis added). In particular, Petitioner asserts that “[a]lthough Ferguson teaches scheduling such data transfers, it does not expressly teach requesting the additional information to be sent at a time other than immediately[, b]ut Kehr does.” *Id.* at 29. In support of its assertion that Kehr teaches this limitation, Petitioner cites to the following disclosure within Kehr:

In the case where the treatment information comprises patient query data, once the patient query data is transmitted to the medical monitoring device, *the device either promptly*

executes the Patient Query mode, or stores the patient query data for subsequent execution of the Patient Query mode, depending on the status of an execution command.

Ex. 1005, 34 (emphases added).

Petitioner asserts that Kehr's "execution command is based on medical urgency and determines the transmission timing of the additional data." Pet. 29 (citing Ex. 1005, 34–35 ("execution command . . . depends upon the urgency of receiving responses to the particular queries transmitted to the device")). Kehr further discloses that "[t]he timing associated with the execution command is based on the disease being treated and the treatment regimen being administered." Ex. 1005, 35.

Based on the teachings of Kehr and the testimony of Dr. Stone, Petitioner reasons that a person of ordinary skill in the art "would have been motivated to modify Ferguson with Kehr's transmission timing scheme to efficiently allocate bandwidth and other resources while still ensuring patient safety." Pet. 30 (citing Ex. 1002 ¶¶ 109–114, 169–172). In particular, Petitioner reasons that the proposed combination would: (1) avoid needlessly tying-up communication lines; (2) conserve battery power, if the remote unit is battery-powered; and (3) would result in a more-efficient, less-expensive system that does not needlessly utilize more-expensive (immediate) bandwidth transmission. *See id.* at 15–18 (citations omitted). Petitioner argues that "Kehr's teaching reflects common sense: urgent or high priority information takes precedence over less important information." *Id.* at 30.

4. *Dependent Claims 2 and 11*

Claims 2 and 11 depend from claims 1 and 9, respectively, and further recite, “wherein the monitored data set comprises a cardiogram of the patient.” Ex. 1001, 7:37–38, 8:34–35.

To address this limitation, Petitioner asserts that Ferguson’s monitored data set includes a patient’s cardiogram and refers to the same analysis presented under claim 1. *See* Pet. 30–31 (citing Ex. 1002 ¶¶ 174–76; Ex. 1004, 1:14–22, 14:42–49); *see also id.* at 36.

5. *Dependent Claim 3*

Claim 3 depends from claim 1 and further recites, “wherein the step of the remote monitoring unit analyzing the monitored data set includes the step of comparing at least one element of the derived data set to a warning limit.” Ex. 1001, 7:39–43.

To address this limitation, Petitioner asserts that Ferguson discloses this step with each threshold corresponding to the claimed “warning limit.” Pet. 31 (citing Ex. 1002 ¶¶ 178–80).

6. *Dependent Claims 4 and 12*

Claims 4 and 12 depend from claims 1 and 9, respectively, and further recite, “wherein the step of the central unit instructing the remote monitoring unit *as to a time* includes the step of the central unit instructing the remote monitoring unit to transmit the additional data set substantially immediately.” Ex. 1001, 7:44–49, 8:36–41.

To address this limitation, Petitioner asserts that Ferguson and Kehr each teach instructing its remote monitoring unit to transmit the additional

data set “substantially immediately.” Pet. 31–32 (citing Ex. 1002 ¶¶ 182–86); *see also id.* at 36.

7. *Dependent Claims 5 and 13*

Claims 5 and 13 depend from claims 1 and 9, respectively, and further recite, “wherein the step of the central unit instructing the remote monitoring unit *as to a time* includes the step of the central unit instructing the remote monitoring unit to transmit the additional data set at a delayed time.” Ex. 1001, 7:50–55, 8:42–47.

To address this limitation, Petitioner asserts that the proposed combination satisfy the claimed step as the data is transmitted immediately or at some other time based on urgency. *See* Pet. 32 (citing Ex. 1002 ¶ 188); *see also id.* at 36.

8. *Dependent Claims 6 and 14*

Claims 6 and 14 depend from claims 1 and 9, respectively, and further recite, “wherein the additional data set and the monitored data set are not the same.” Ex. 1001, 7:56–57; 8:48–49.

To address this limitation, Petitioner asserts that Ferguson’s “additional data set” is at most a subset of the larger “monitored data set,” and are thus “not the same.” *See* Pet. 32–33 (citing Ex. 1002 ¶¶ 190–91, 193; Ex. 1004, 14:21–25, 24:9–10).

9. *Independent Claim 9*

As with claim 1, independent claim 9 recites a “method of monitoring a patient” with a “monitoring apparatus” including a “remote monitoring

unit,” “central unit,” and “communications device.” Ex. 1001, 8:1–30.

Unlike claim 1, however, claim 9 is broader as it does not recite its “remote monitoring unit” to include a “sensor,” “obtain a derived data set,” or “determin[e] from the derived data set that communication with the central unit is required.” *Compare id.* at 7:1–36, *with id.* at 8:1–30.

To address the claim 9, Petitioner relies on the same findings and reasoning presented in its claim 1 challenge. *See* Pet. 34–36.

10. *Independent Claim 16*

Claim 16 is nearly identical to claim 1, with the exception being the last method step, which removes the language “when the additional data set related to the monitored data set is required” and “received from the remote monitoring unit,” but adds the language “the step of the central unit analyzing.” *Compare* Ex. 1001, 7:1–36, *with id.* at 8:57–9:21. In particular, claim 16 recites,

the central unit instructing the remote monitoring unit that the additional data set related to the monitored data set is to be transmitted from the remote monitoring unit to the central unit and as to a time at which the additional data set is to be transmitted based on *the step of the central unit analyzing* the initially transmitted data set.

Id. at 8:57–9:21 (emphasis to limitation added).

To address this claim, Petitioner asserts that, as discussed with respect to claim 1, the combination satisfies the claim and Ferguson’s “central unit” analyzes the initially transmitted data to determine whether and when additional data is required. *See* Pet. 36–37 (citing Ex. 1002 ¶ 212).

11. *Independent Claim 17*

Claim 17 is similar to claim 1 with the exception of two claim limitations, namely, the claimed “communications device which selectively establishes a communications link . . . *based on a condition sensed*” and “central unit instructing . . . *based on the condition sensed.*” Compare Ex. 1001, 7:1–36, with *id.* at 9:22–51 (emphases added to new language). In challenging claim 17, Petitioner relies largely on the same findings and reasoning discussed above with respect to claim 1, and supplements its analysis as discussed below. See Pet. 37–40.

a) “*communications device which selectively establishes a communications link . . . based on a condition sensed*”

Unlike claim 1, claim 17 recites the monitoring apparatus to include a “communications device which selectively establishes a communications link between the remote monitoring unit and the central unit *based on a condition sensed.*” *Id.* at 9:22–51 (emphasis to additional limitation).

To address this limitation, Petitioner asserts that in Ferguson, “the initially transmitted data set captures a ‘condition sensed’ because the initially transmitted data includes or is derived from sensed patient data,” including, for example, Ferguson’s ECG data, and it is this data that indicates the patient’s condition, such as a high heart rate. Pet. 38 (citing Ex. 1004, 14:38–42; Ex. 1002 ¶ 217).

b) “*central unit instructing . . . condition sensed*”

Claim 1 requires the instruction to transmit additional data to be based on the initially transmitted data set. Ex. 1001, 7:28–36. Claim 17, on the

other hand, requires the instruction to transmit additional data to be *based on the condition sensed*. *Id.* at 9:28–32.

To address this limitation, Petitioner asserts that Ferguson’s operator at its “central unit” “reviews summaries of patient data and event flags uploaded from the [remote monitoring unit] and determines whether more detailed data is necessary.” Pet. 39 (citing Ex. 1004, 14:38–40). Petitioner explains that because “[t]he patient’s health condition corresponds to the claimed condition sensed, and the summaries of patient data and event flags capture the patient’s health conditions (e.g., whether the patient has a high heart rate[]),” the “decision to request more data from the [remote monitoring unit] is therefore based on a condition sensed.” *Id.* at 39–40 (citing Ex. 1004, 12:41–48; Ex. 1002 ¶¶ 219–20).

12. Independent Claim 18

Claim 18 is similar to claim 1 with the exception of two limitations. *Compare* Ex. 1001, 7:1–36, *with id.* at 9:52–10:17.

Unlike claim 1, claim 18 recites, “the remote monitoring unit determining from the derived data set that communication with the central unit is required *based upon a condition sensed*.” *Id.* at 10:1–3 (emphasis to additional limitation). To address this limitation, Petitioner cites to Ferguson’s disclosure that its “remote monitoring unit” compares the heart rate (part of the “derived data”) to determine threshold events (Pet. 41 (citing Ex. 1004, 12:34–45)) and asserts that the “patient’s health condition corresponds to the claimed condition sensed, and a threshold event (e.g., high heart rate) is such a sensed condition” (*id.* (citing Ex. 1002 ¶ 226)).

Also unlike claim 1, claim 18 *does not* require that the “central unit” instruct “based on the *initially transmitted data set received from the remote monitoring unit.*” Compare Ex. 1001, 7:28–36, with *id.* at 10:11–17. Petitioner relies on the same findings and reasoning discussed with claim 1 in addressing this claim limitation. See Pet. 41–42.

13. *Dependent Claims 19, 20, 22, 24, and 26*

Claims 19, 20, 22, 24, and 26 depend from claims 1, 9, 16, 17, and 18, respectively, and further recite, “determining whether the additional data set related to the monitored data set is required to be transmitted by the monitoring unit immediately or at a later time.” Ex. 1001, 10:17–26, 10:34–38; 10:47–51, 10:59–63.

To address this limitation, Petitioner asserts that it would have been obvious for the same reasons as claims 1, 4, and 5 (Pet. 33 (citing Ex. 1002 ¶ 195)) and further asserts that “Ferguson describes its [central unit] as determining whether additional detailed data is required to be sent immediately, and if so, sending a DataRequest command to request it” (*id.* at 33–34 (citing Ex. 1004, 13:7–10, 16:33–36; Ex. 1002 ¶ 195); see also *id.* at 36, 37, 42. Ferguson discloses that a “DataRequest command from the remote monitoring station **50** requests that the base station unit **30** sends a specified time range of raw data to the remote monitoring station.” Ex. 1004, 16:33–36.

14. *Board’s Analysis*

We have considered Petitioner’s analysis as well as Patent Owner’s arguments and find Petitioner’s analysis persuasive. In particular, we have

reviewed Petitioner's cited evidence and agree with and adopt Petitioner's mapping of the combination of Ferguson and Kehr to claims 1–6, 9, 11–14, 16–20, 22, 24, and 26. We further determine that a POSITA would have combined Ferguson with Kehr as Petitioner proposes. As discussed above (*see supra* Part III.D.3.g), in addition to conserving battery power, Petitioner reasons that a POSITA would have modified Ferguson in order to avoid tying-up communication lines and that the modified system would result in a more-efficient, less-expensive system that does not needlessly utilize more-expensive (immediate) bandwidth transmission. *See* Pet. 15–18 (citations omitted). We agree with Petitioner that Kehr teaches that “urgent or high priority information takes precedence over less important information.” *Id.* at 30. Ferguson *also teaches* that routine data is transmitted during early morning hours in order “to minimize interference with normal telephone usage,” and that data transfers that need immediate transmission and urgent telephone calls take precedence over routine data transmissions. *See* Ex. 1004, 15:49–53, 21:52–55, 13:23–27.

Patent Owner presents voluminous, nested arguments why the combination of Ferguson and Kehr would not have rendered the claims obvious at the time of the invention. In the interests of brevity, we summarize Patent Owner's arguments as:

- a) Petitioner fails to show that a POSITA would have modified Ferguson based on Kehr (PO Resp. 14; PO Sur-Reply 4);
- b) Petitioner fails to show that Ferguson's base station “determin[es] from the derived data set that communication with the central unit is required” (PO Resp. 38; PO Sur-Reply 1); and
- c) Regarding claim 17, 23, and 24, Petitioner fails to show that Ferguson's modems “selectively establish a communications link . . . based on a condition sensed” (PO Resp. 49; PO Sur-Reply 10).

Although we agree with Patent Owner’s argument that Ferguson’s “base station” is not battery powered and that a POSITA would not modify Ferguson to conserve batteries (PO Resp. 31–32; Paper 11, 19), Patent Owner’s other arguments are not persuasive, and we determine that a POSITA would have combined Ferguson with Kehr as Petitioner proposes. We address each of Patent Owner’s arguments separately, below.

a) Patent Owner’s argument that Petitioner fails to show that a POSITA would have modified Ferguson based on Kehr as proposed

First, Patent Owner argues that Petitioner has failed to show that a POSITA would have modified Ferguson in the manner alleged. PO Resp. 14; *see also* PO Sur-Reply 4 (asserting that Petitioner failed to establish a rationale for modifying Ferguson to include the “instructing as to a time” limitation). In support of this argument, Patent Owner presents a number of sub-arguments. While we agree with Patent Owner that one of Petitioner’s alternative motivations to combine—the alleged desire of a POSITA to conserve battery power—is not supported by the evidence, we determine that Petitioner’s other, alternative motivations to combine are well-supported and persuasive, notwithstanding Patent Owner’s arguments to the contrary. As explained in more detail below, we find that most of Patent Owner’s arguments are premised on mischaracterizations of Petitioner’s challenge, the cited art, and Dr. Stone’s supporting testimony. Thus, we do not find them persuasive.

(1) *Patent Owner's argument that modifying Ferguson would not address bandwidth concerns*

In arguing there is no motivation to combine, Patent Owner first argues that modifying Ferguson would not address bandwidth concerns. PO Resp. 16–17. In particular, Patent Owner cites to the following statement in the Petition: “Urgent messages must be sent immediately, but routine information may be sent later when bandwidth is cheaper or more available, *e.g.*, because the unit can be plugged in.” PO Resp. 17 (citing Pet. 15) (emphasis added to “*e.g.*,” which is “for example”). Patent Owner interprets this statement to mean that Petitioner is relying on Ferguson for disclosing that the base station is *both* battery-powered and plugged in to a wall, and that Ferguson’s base station has *both* a wired landline connection and a wireless cellular connection. *See id.* (“[Petitioner’s] rationale is inconsistent with Ferguson, which contains no disclosure of a base station (i) that can be both battery-powered and plugged in to a wall or (ii) that has both a wired landline connection and a wireless cellular connection and can switch between them”) (citing Ex. 2005 ¶ 52). Patent Owner’s argument, however, misconstrues Petitioner’s rationale and the challenge before us.

Petitioner does not rely on Ferguson’s base station for being *both* battery-powered and “plugged in,” or having *both* a landline connection and a cellular connection, as Patent Owner’s argument presumes (Pet. 15–18), nor does Petitioner’s proposed modification require the combined system to disclose such structure (*see id.*). Furthermore, claim 1 does not require the claimed communications device to be *both* battery powered and plugged into a wall, or have *both* a landline and wireless connection. Ex. 1001, 7:2–36.

Even if Ferguson only uses a single cellular connection for data transfer (Ex. 1004, 5:30–33 (“[f]or data transfer, the base station connects the memory card or smart card, via modem and land or cellular telephone line”)), we find persuasive Dr. Stone’s testimony that a POSITA would have been motivated to delay routine, non-urgent communications, to avoid tying up that cellular line (see Ex. 1002 ¶¶ 111–114). We credit Dr. Stone’s testimony that “incorporating the transmission timing scheme of Kehr into the system of Ferguson would have been routine for one of ordinary skill and desirable for promoting resource efficiency.” Ex. 1002 ¶ 114. In particular, we find persuasive Dr. Stone’s testimony that modifying Ferguson would “strike an appropriate balance of ensuring patient safety (e.g., by requiring immediate transmission of urgent data) while avoiding the use of power *and cellular bandwidth resources* (e.g., by allowing later transmission of non-urgent data).” *Id.* (emphasis added).

Also within Patent Owner’s argument that Petitioner has failed to show a motivation to combine, Patent Owner asserts that “in 2001 technical advances were increasing the speeds of available cellular digital data services” and that a POSITA “would have understood that transmitting data over a cellular data channel was cost effective because data channels were packet switched instead of circuit switched.” PO Resp. 23 (citation omitted). In other words, due to this developing technology, Patent Owner argues that a POSITA “would have understood the *cellular digital voice plans* would not have satisfied the needs of Ferguson’s system,” as Petitioner and its expert argue. See *id.* at 24 (citations omitted).

Stated differently, Patent Owner's argument presumes that Petitioner's reason for modifying Ferguson is deficient simply due to other advances in technology. We disagree.

Even if we assume that in 2001 carriers began deploying new technology that may have led to improved data transfer (i.e., using packet switched cellular data channels as opposed to circuit-switched cellular digital voice plans), we still find persuasive Petitioner's reason for modifying Ferguson, specifically, that such modification would improve Ferguson's system by sending less urgent data when communications are less likely to be interrupted (during off-peak usage), and when bandwidth is cheaper. *See* Pet. 25. Indeed, Kehr teaches that urgent medical data should be transmitted immediately and the transmission of less-urgent data may be delayed. *See* Ex. 1005, 34–35. We credit Dr. Stone's testimony that "incorporating the transmission timing scheme of Kehr into the system of Ferguson would have been routine for one of ordinary skill and desirable for promoting resource efficiency." Ex. 1002 ¶ 114.

As discussed below, we also disagree with Patent Owner's assertion that "delaying transmission would not make cellular data transmissions cheaper." PO Resp. 20; *see also* PO Sur-Reply 7–10.

(2) Patent Owner's arguments regarding cost and efficiency

Regarding Patent Owner's various arguments that there would be no motivation to combine because there would be no cost or efficiency advantages, Patent Owner asserts that "[e]ven where Ferguson's base station includes a cellular data connection, Petitioner has not shown that bandwidth

is a resource that needs to be conserved . . . [as] the cost of cellular data transmission would not depend on the time of the transmission.” PO Resp. 26 (*citing id.* at § III.B.1.b). In its Sur-Reply, Patent Owner contends, “Petitioner fails to show any cost savings because it presents no evidence that *analog cellular networks* offered free nighttime and weekend minutes. *The cited exhibits refer only to digital networks.*” PO Sur-Reply 8 (citation omitted, emphases added).

We disagree.

At the outset, Patent Owner’s argument misconstrues Petitioner’s challenge as being premised on sending analog data over a digital channel. *Compare* PO Sur-Reply 4 (“it is impossible as a technical matter to use an analog modem to send data over a digital channel, as Dr. Stone had proposed, to save costs”), *with* Pet. 15–18; *see also* Pet. Sur-Sur-Reply 5 (“[Petitioner’s] argument has never been premised, as [Patent Owner] argues, on sending analog data over a digital voice channel”). As a point of clarity, and not as a new argument, Petitioner explains that at the time of the invention, digital and analog cellular service were both being used (*see* Pet. Reply 10 (citing Ex. 2009, 6)) and that many cellular providers were providing “dual-mode phones to allow users to move seamlessly between digital and analog networks” (*id.* at 11 (citing Ex. 2009, 59–60)), and these cellular providers “did not treat analog and digital as separate business units . . . [and] commonly treated all in-network usage the same” (*id.* at 11–12 (citing Ex. 1028 ¶ 24; citing *also* Exs. 1024, 1049–1055, 1065–1075)).

Furthermore, Petitioner submits substantial evidence to support its assertion that at the time of the invention, cellular data transmission costs were highly dependent on the time of transmission. *See, e.g.*, Exs. 1027 and

1050 (limiting cellular use during peak times while providing “free long distance” during “unlimited nights and weekends”); *see also* Ex. 1066 (providing 250 “anytime minutes” and 1000 “bonus minutes during nights and weekends”); *see also* Ex. 1070 (providing 200 anytime minutes along with “1000 weekend minutes” for \$29.00). Only after Patent Owner disputed this seemingly well-known fact in its Patent Owner Response (PO Resp. 33) did Petitioner submit over a dozen additional exhibits (Pet. Reply 14 (citing Exs. 1027, 1049–1055, 1065–1075)) to confirm that which was already argued in the Petition (*see* Pet. 15, 17, 30 (citing Exs. 1002, 1027)). Indeed, we find Patent Owner’s argument—that the “price of data transmission” did not depend “on the time of day” (*see* PO Resp. 33)—contradicts that of its own expert, Dr. Fernald, who testifies that

To my knowledge, at the time of the inventions you could send data across, you know, an appropriate cellular channel with the appropriate equipment. And it’s my understanding that data, at least in the cases that we’ve looked at, for instance, from Cingular, would be subject to peak or offpeak billing rules.

Ex. 1029, 73:20–74:2.

The record also supports a finding that cellular minutes used for accessing the Internet are deducted from a user’s monthly service plans. *See, e.g.*, Ex. 2008, 72 (“In addition, *Internet access minutes* are deducted from the customer’s minutes included in their monthly service plans” (emphasis added)).

Accordingly, we find that the record supports Petitioner’s assertion that cellular data transmission rates would have depended on the time of transfer, and at the time of the invention, rates were higher during peak times than during off-peak times (e.g., nights and weekends).

(3) *Patent Owner's argument that Dr. Stone is not credible*

Patent Owner asserts that Dr. Stone's testimony regarding cellular bandwidth available during peak hours is not credible and technically incorrect. *See* PO Resp. 32. In particular, Patent Owner asserts that Dr. Stone opined that it was possible to use an ordinary modem to send data over a cellular digital voice channel, but doing so is not technically possible. *See id.* at 32–33 (citing Ex. 2010, 10; Ex. 2005 ¶¶ 73–76). During a deposition of Dr. Stone, Patent Owner challenged Dr. Stone's understanding of “TCH/F 9.6 data traffic GSM channel,” and “compression techniques applied by GSM or CDMA standards.” *See id.* at 33–34 (citations omitted).

We find Patent Owner's contentions unpersuasive, and we agree with Petitioner that Patent Owner's questioning regarding “TCH/F 9.6 data traffic” and “compression techniques applied by GSM or CDMA standards” goes well beyond the scope of his declaration and the art relevant to the '767 patent. *See* Pet. Reply 15, n.3 (citing Ex. 2006, 37, 40–41). As discussed above (*see supra* Part III.C), neither Patent Owner nor Petitioner proposes that a POSITA would have had a detailed knowledge of cellular compression techniques, and Dr. Stone's answers to these questions do not persuade us that his testimony is not credible or otherwise incorrect. Rather, upon reviewing the competing testimony of Dr. Stone and Dr. Fernald, we credit Dr. Stone's testimony that a POSITA would have modified Ferguson to include Kehr's timing method “to transmit an additional data set either immediately or at a later time, depending on the urgency of the data” (Ex. 1002 ¶ 112) and that “cellular bandwidth (particularly during peak hours)” was a major resource concern (*id.*). We also credit Dr. Stone's

testimony that “when medical data is deemed urgent, it would be preferable to communicate that data as soon as possible . . . even if doing so would require the data to be transmitted over a relatively expensive cellular connection.” *Id.* ¶ 113.

(4) *Patent Owner’s argument that Ferguson already solves the problem of bandwidth constraints*

Patent Owner also argues that Petitioner presented a new argument in its Reply in asserting that “Ferguson’s system would prevent a household from being able to *receive* calls.” PO Sur-Reply 5. In other words, Patent Owner argues that the Petition only discussed Ferguson’s ability to make calls, and did not address Ferguson’s ability *to receive calls*. *See id.*

We disagree. Patent Owner again misconstrues Petitioner’s challenge.

As discussed above, in its Petition, Petitioner reasons that a POSITA “would have been motivated to modify Ferguson as taught by Kehr based on the need to allocate bandwidth *to avoid tying up communication lines when they may be needed for higher-priority communications*, the need to use less expensive bandwidth” Pet. 15 (emphasis added). Petitioner proposes to modify Ferguson to avoid tying up communication lines, regardless of whether calls are received or made. We agree with Petitioner that this is reasonably construed as covering both making and receiving calls, and is not limited in the manner Patent Owner contends. Accordingly, Petitioner does not propose a new argument in its Reply, as Patent Owner argues. *See* PO Sur-Reply 5.

Patent Owner also argues that call waiting could have been used to allow telephone calls to be received, even when a modem was transmitting data. PO Sur-Reply 5–6.

Patent Owner’s argument is unavailing for several reasons. Fundamentally, the fact that other, even possibly better solutions might exist does not render the combination of Ferguson and Kehr inapt for obviousness purposes. *See In re Mouttet*, 686 F.3d 1322, 1344 (Fed. Cir. 2012) (noting “that just because better alternatives exist in the prior art does not mean that an inferior combination is inapt for obviousness purposes”). In addition, Patent Owner’s call waiting argument relies on assumptions that may not apply in every case. For example, as Patent Owner conceded at the hearing, its argument regarding call waiting modems requires that the user have call waiting (Tr. 54–55) and Patent Owner based its argument on its claim that all modems at the time of the invention would have had a call waiting feature, which it admitted was an “overstatement” (*id.* at 55–56). Moreover, *even if* call waiting could have been used to allow urgent telephone calls to be received, as Patent Owner argues (*see* PO Sur-Reply 5–6), we remain persuaded by Petitioner’s reasoning that modifying Ferguson, as taught by Kehr, would have nevertheless improved Ferguson’s system by sending less urgent data when communications are less likely to be interrupted, and bandwidth is cheaper. *See* Pet. 17.

b) *Petitioner fails to show that Ferguson’s base station “determin[es] from the derived data set that communication with the central unit is required”*

Claim 1 recites, *inter alia*, “the remote monitoring unit *determining from the derived data set* that communication with the central unit is

required.” Ex. 1001, 7:16–18 (emphasis added). To satisfy this limitation, and as discussed above (*see supra* Part III.D.3), Petitioner relies on the testimony of Dr. Stone and asserts that when Ferguson’s “remote monitoring unit,” or “RMU,” *flags* an event for download, it determines that communication is required. Pet. 23 (citing Ex. 1002 ¶ 143). Petitioner cites to Ferguson’s disclosure that upon detection of a threshold event (or threshold violation, *such as a low heart rate*), its RMU determines that the event and its related data “need to be communicated to the CU.” *Id.* at 23–24 (citations omitted). Ferguson discloses that flagging events “will be stored on the base station unit 30, and new events will be downloaded whenever the remote monitoring unit 50 and base station unit 30 connect.” Ex. 1004, 22:19–21 (emphasis omitted).

Patent Owner argues that the Petition fails to show that Ferguson’s Base Station “Determin[es] *from the Derived Data Set* that Communication with the Central Unit is required.” PO Resp. 38 (emphasis added); PO Sur-Reply 1. In support of this argument, Patent Owner presents a number of sub-arguments, which we address below.

(1) *Patent Owner’s argument that Petitioner
relies on the wrong data set*

The challenged claims require the “remote monitoring unit” to determine from the “derived data set” that communication is required. Ex. 1001, 7:16–18. Patent Owner argues that Ferguson’s base station (the claimed “remote monitoring unit”) instead determines that communication is required from the “*monitored data set*.” PO Resp. 40.

As discussed above, Petitioner relies on Ferguson’s disclosure that its sensor—sensor band 10—measures, for example, ECG and respiration signals, and it is these signals that corresponds to the claimed “monitored data set.” See Pet. 22 (citing in part Ex. 1004, 8:44–49). Petitioner also relies on Ferguson’s disclosure that RMU *calculates heart rate and respiration rate* from the ECG and respiration signals—the monitored data set—and it is this *calculated heart rate and respiration rate* that correspond to the claimed “derived data set.” *Id.* at 22 (citing Ex. 1004, 12:19–28, 15:41–45).

Ferguson discloses that its base station unit 30 (the claimed “remote monitoring unit”) “may also include software which compares the various vital signs data signals received with pre-programmed thresholds for certain physiological variables” (Ex. 1004, 12:34–37) and if “data points fall outside these threshold values for a certain period of time, the base station unit 30 may record an event condition” and that events “are preferably generated for high or low heart rate” or a “high or low respiration rate” (*id.* at 12:41–45). Ferguson also discloses “Flagging Events” that “can be set by the remote monitoring station 50 *to be flagged by the base station units 30,*” including a high and low heart rate threshold and high and low respiratory rate threshold. See *id.* at 22:4–21 (emphasis added). Ferguson further discloses that its base station unit 30 (the claimed “remote monitoring unit”) can initiate data transfer. See, e.g., Ex. 1004, 13:11–18 (“in an alternative embodiment the base station unit 30 could initiate dial-up for uploading stored data.”).

We find that even though Ferguson’s remote monitoring station 50 (the claimed “central unit”) sets the types of events to be flagged, it is

Ferguson’s base station unit 30 (the claimed “remote monitoring unit”) that ultimately *flags*—or “determines”—certain events for download. Ex. 1004, 22:5–7. Furthermore, a high and low heartrate—the “derived data—is a type of event flagged by Ferguson’s base station unit 30. *Id.* at 22:12–13; *see* Pet. 22 (asserting that the calculated heart rate is part of the “derived data set”). Finally, as Petitioner correctly asserts, Ferguson’s base station unit 30 may initiate dial-up for uploading data. Pet. 24 (citing Ex. 13:15–18, 14:5–10); *see also* Ex. 1004, 13:16–18 (“the inventors contemplate that in an alternative embodiment the base station unit **30** could initiate the dial-up for uploading the stored data.”).

Based on this disclosure, we agree with Petitioner and credit Dr. Stone’s testimony that Ferguson’s base station unit 30 satisfies the claimed remote monitoring unit and that it determines from a derived data set (e.g., heart rate, respiration rate, temperature) that communication with remote monitoring station 50 (the claimed “central unit”) is required. Ex. 1002 ¶ 147. We credit Dr. Stone’s testimony that Ferguson *discloses* this limitation. *See id.* (“Ferguson discloses a remote monitoring unit determining from a derived data set (e.g., heart rate, respiration rate, temperature) that communication with a central unit (‘remote monitoring station 50’) is required.”).

Moreover, and as discussed below (*see infra* Part III.D.14.b.4), *even if* Ferguson did not disclose that its base station determines from the derived data set (e.g., heart rate) that communication with the central unit is required, we agree with Petitioner that that well-known capability would have been an obvious modification. Pet. 24.

(2) *Patent Owner's argument that Ferguson cannot initiate a connection*

Patent Owner also argues that Ferguson's base station 30 (the alleged remote monitoring unit) cannot initiate a connection to remote monitoring station 50 (the alleged central unit) based on its detection of an event as Petitioner asserts. PO Resp. 42. As discussed in the preceding section, Ferguson discloses that "the inventors contemplate that in an alternative embodiment the base station unit **30** could initiate the dial-up for uploading the stored data." Ex. 1004, 13:16–18. Patent Owner argues that this particular disclosure "does not explicitly state what would cause the base station" 30 to initiate a connection to Ferguson's remote monitoring station 50 (PO Resp. 43) and a more logical reading of the passage is that the connection would be initiated at "*specified times*," and "not in response to the base station detecting the event as Petitioner alleges" (*id.* at 43–44 (citing Ex. 2005 ¶¶ 102–105) (emphasis added)).

Patent Owner's argument is not persuasive. Ferguson discloses that its base station 30 flags events, such as high-heart rate, for download (Ex. 1004, 22:5–21) and Petitioner proposes to modify Ferguson with Kehr's timing scheme so that "[u]rgent messages must be sent immediately" (Pet. 14–15). As such, *even if* we assume *arguendo* that Ferguson only discloses sending data at "specified times" to be true, as opposed to immediately upon flagging a high heart rate, for example, (*see* PO Resp. 43–44), we find persuasive Petitioner's reasoning and credit Dr. Stone's testimony that a POSITA would have modified "Ferguson to include Kehr's known method of instructing the remote monitoring unit to transmit an additional data set

either immediately or at a later time, depending on the urgency of the data.”
Ex. 1002 ¶ 112.

(3) *Patent Owner’s argument that we relied on
an incorrect understanding of Ferguson*

Patent Owner also argues that the passage of Ferguson we relied upon in the Institution Decision to disclose this element actually shows downloading configuration data from *remote monitoring station 50*. PO Resp. 46. As discussed above, Ferguson discloses that an event, such as high heart rate, may be “set by the remote monitoring station 50 to be flagged by the base station units 30” and that the event “will be stored on the base station unit 30, and new events will be downloaded whenever the remote monitoring unit 50 and base station unit 30 connect.” Ex. 1004, 22:5–21. Patent Owner asserts that this particular disclosure “does not describe uploading events detected by the base station 30 to [remote monitoring station] 50” (PO Resp. 46) and this disclosure does not disclose that the base station “determin[es] . . . that communication with the central unit is required” (*id.* at 47).

We disagree. Patent Owner’s argument selectively ignores Ferguson’s other disclosure relating to the “flagged events.”

As discussed above, Ferguson’s base station unit 30 flags events for download. Ex. 1004, 22:5–6. Ferguson’s base station unit 30 may also initiate dial-up for uploading data. *Id.* at 13:16–18. Ferguson further discloses that “[w]hen a threshold event is detected by the base station unit **30**, a ‘recording session’ for later download may be flagged, causing a block of data to be recorded containing all the parameters being monitored for

several (e.g., ten) minutes leading up to the event and for its duration.” *Id.* at 14:21–25. Based on this disclosure, we agree with Petitioner and credit Dr. Stone’s testimony that “[w]hen Ferguson’s remote monitoring unit detects such a threshold event, it determines that the event and a block of data relating to the event need to be communicated to the central unit and starts ‘a “recording session” for later download.’” Ex. 1002 ¶ 144 (citing Ex. 1004, 14:21–25).

(4) *Patent Owner’s argument that the Board limited the arguments regarding Ferguson*

Patent Owner also argues that because we determined that Ferguson discloses “determining from the derived data set that communication with the central unit is required” . . . “[t]he Board did not institute on [Petitioner’s] alternative basis,” where Petitioner reasoned that it also would have been obvious to modify Ferguson to meet the limitation. See PO Resp. 47 (citing Pet. 24–25) (emphasis added).

Although the Institution Decision did not discuss Petitioner’s alternative argument, Patent Owner should not infer that we found Petitioner’s alternative basis to be unpersuasive. Rather, we made no such determination (*see, generally*, Paper 11), and we must assess the Petitioner’s challenge anew after our institution decision (*see In re Magnum Oil Tools Int’l*, 829 F.3d 1364, 1376–77 (Fed. Circ. 2016)).

As discussed above, we find that Ferguson discloses the claimed “remote monitoring unit determining from the derived data set that communication with the central unit is required.” *Even if* Ferguson did not teach or suggest that its base station determines from the derived data set

(e.g., heart rate) that communication with the central unit is required, however, we also agree with Petitioner that that well-known capability would have been an obvious modification. Pet. 24.

Kehr discloses that its “medical monitoring device analyzes the resulting data by comparing it to target data” and “if the device determines that the resulting data meets certain predefined criteria, the device promptly transmits the resulting data to the remote device 100.” Ex. 1005, 38. Kehr further discloses that “[t]he resulting data is either stored in the medical monitoring device for subsequent transmission (i.e., during a subsequent polling operation), or promptly transmitted to the remote device 100 for storage and analysis.” *Id.* Based on these teachings, we agree with Petitioner (Pet. 24–25) and credit Dr. Stone’s testimony that a POSITA

would have been motivated to modify Ferguson’s base station so that it “initiate[s] a dial-up” when an event is detected (rather than waiting for the next scheduled transmission) in order to promptly notify medical personnel that the patient has experienced an event that may warrant immediate care . . . [as] expressly disclosed by Kehr.

Ex. 1002 ¶ 147. Indeed, Ferguson’s Background of Invention also teaches this feature. *See, e.g.*, Ex. 1004, 3:10–13 (discussing prior art systems “in which a patient wears a sensor harness including a microprocessor that detects potentially life-threatening events and automatically calls a central base station”).

c) *Regarding claim 17, 23, and 24, Petitioner fails to show that Ferguson’s modems “selectively establish a communications link . . . based on a condition sensed”*

Regarding claims 17, 23, and 24, Patent Owner argues that Petitioner fails to show that Ferguson’s modems “selectively establish a communications link . . . based on a condition sensed.” PO Resp. 49. In particular, Patent Owner cites to its previous argument (*id.* at 50; *see also supra* Part III.D.14.b.2) that “Ferguson does not disclose that base station 30 initiates communication link with [remote monitoring station] 50 in response to detecting an event. Instead, Ferguson discloses only that base station 30 initiates communication link with [remote monitoring station] 50 in response to the occurrence of ‘*specific times*.’” PO Resp. 50 (citing Ex. 2006, 15:21–16:4, 16:25–17:5; Ex. 2006 ¶¶ 109–112) (emphasis added).

Patent Owner’s argument is unavailing, as it fails to give full appreciation to the challenged ground before us, namely, the *combination* of Ferguson and Kehr.

As discussed above, Ferguson discloses that “base station unit **30** could initiate the dial-up for uploading the stored data” (Ex. 1004, 13:17–18), and although “remote monitoring station 50 initiates connection to the base station unit **30**, . . . once the connection has been accepted, *both ends* of the communications link **40** will listen for commands” (*id.* at 16:7–13 (emphasis added)). Ferguson also discloses that its base station 30 flags events, such as high-heart rate, for download (*id.* at 22:5–21), and Petitioner proposes to modify Ferguson with Kehr’s timing scheme so that “[u]rgent messages must be sent immediately” (Pet. 14).

Accordingly, *even if* we assume Patent Owner’s assertion that Ferguson only discloses sending data at “specified times” to be true, as

opposed to immediately upon flagging a high heart rate (the “condition sensed”), for example, (*see* PO Resp. 50), we find persuasive Petitioner’s reasoning and credit Dr. Stone’s testimony that a POSITA would have modified “Ferguson to include Kehr’s known method of instructing the remote monitoring unit to transmit an additional data set either immediately or at a later time, depending on the urgency of the data.” Ex. 1002 ¶ 112; *see also supra* Part III.D.14.b.2 (discussing the same).

15. *Summary of Ground 1*

For the foregoing reasons, and as set forth in the Petition supported by the underlying evidence cited therein, we are persuaded that a preponderance of the evidence supports the conclusion that claims 1–6, 9, 11–14, 16–20, 22, 24, and 26 would have been obvious over Ferguson and Kehr.

E. *Ground 2: Ferguson, Kehr, and Yasushi*

Petitioner contends that claims 7, 15, 21, 23, and 25 are unpatentable over Ferguson, Kehr, and Yasushi. Pet. 42.

1. *Yasushi (Ex. 1006)*

Yasushi is titled HEALTH MONITORING SYSTEM and discloses a system with two devices: a “terminal device,” which moves with a person to detect that person’s health parameters; and a “first center device,” which communicates with the terminal device. Ex. 1006, (54), (57). The “first center device stores the *historical diagnosis information* concerning the person, receives the result of the diagnosis from the terminal device, [and] judges whether detailed data concerning the condition of health of the person

is needed [as a] result of the diagnosis and the historical diagnosis information.” *Id.* at (57) (emphasis added).

2. *Dependent Claims 7, 15, 21, 23, and 25*

Claims 7 and 15 depend from independent claims 1 and 9, respectively, and further recite, *inter alia*, the step of “analyzing the initially transmitted data set in relation to the *patient history*.” Ex. 1001; 7:58–64, 8:50–56 (emphasis added).

Claims 21, 23, and 25 depend from independent claims 16, 17, and 18, respectively, and further recite, *inter alia*, the step of “determining, based at least on a *personal history of the patient*, whether the additional data set . . . is required to be transmitted.” *Id.* at 10:27–58 (emphasis added).

In addressing the claimed patient and personal history, Petitioner relies on Yasushi’s “historical diagnosis information” as corresponding to these limitations (Pet. 44), and argues that it would have been obvious to further modify Ferguson (as modified by Kehr) to include the claimed patient history features taught by Yasushi (*id.* at 43 (citing Ex. 1002 ¶¶ 233–240)). Petitioner reasons that a person of ordinary skill in the art would have been motivated to make the proposed modification for multiple reasons, including:

- (1) Doing so would improve patient care while still using resources efficiently. . . . [B]y considering patient history information, the CU would be better able to identify latent conditions that would otherwise go undetected as false negatives and could determine trends in the patient’s condition over time that indicate more serious problems than a single data point would suggest[; and]
- (2) Incorporating patient history information . . . would help to avoid wasting bandwidth . . . and human resources on

completing and interpreting transmissions related to false negatives [T]he CU can reduce false indications of what may appear to be medical problems, but, in the context of the patient's data over time, are actually innocuous.

Pet. 44–45 (citing Ex. 1002 ¶¶ 239–240) (numbering and indentation added for clarity); *see also id.* at 45–46 (citing Ex. 1002 ¶¶ 242, 244).

3. *Board's Analysis*

Patent Owner does not present arguments for Ground 2 apart from those presented under Ground 1. *See, generally*, PO Resp.

We have considered Petitioner's analysis and find it persuasive. In particular, we agree with Petitioner's analysis that it would have been obvious to further modify Ferguson (as modified by Kehr) to include the claimed patient history features taught by Yasushi, as doing so would have improved patient care by better identifying latent conditions and by reducing false indications (Pet. 43 (citing Ex. 1002 ¶¶ 233–240)). We therefore determine that claims 7, 15, 21, 23, and 25 would have been obvious over Ferguson, Kehr, and Yasushi.

F. *Ground 3: Ferguson, Kehr, and Surwit*

Petitioner contends that claim 8 is unpatentable over Ferguson, Kehr, and Surwit. Pet. 46.

1. *Surwit (Ex. 1007)*

Surwit discloses an apparatus and method for receiving and analyzing patient information pertaining to that patient's compliance with a medication regimen. *See* Ex. 1007, (57). Surwit discloses that its apparatus can:

communicate a modified medication regimen to the patient and remotely located healthcare providers; prompt the patient to perform a self-test; and prompt the patient to seek immediate medical attention. *Id.* Surwit further discloses that its portable patient monitor may communicate to “various peripheral devices” over land-line telephone connections or “may incorporate wireless communications technology” or “satellite communications technology.” *Id.* at 10:53–67.

2. *Claim 8*

Claim 8 depends from independent claim 1 and further recites, “wherein the communications device comprises a radio frequency telephone terminal and a land-line telephone terminal.” Ex. 1001, 7:65–67.

In addressing the claimed land-line and radio frequency telephone terminals, Petitioner relies on Surwit’s disclosure of a portable patient monitor that can communicate with a server via land-line, cellular, or satellite (Pet. 47 (citing Ex. 1007, 10:53–57)), and reasons that it would have been obvious to further modify Ferguson (as modified by Kehr) to include Surwit’s dual-mode communication feature for *enhanced flexibility* (*id.* at 48 (citing Ex. 1002 ¶¶ 248–253)).

3. *Board’s Analysis*

In contesting this challenge, Patent Owner relies on the same arguments discussed above with respect to independent claim 1, and does not specifically address the limitations of claim 8. *See, generally*, PO Resp.

We have considered Petitioner’s analysis, and on the record presented, find it persuasive. In particular, we agree with Petitioner that it would have

been obvious to further modify Ferguson to include Surwit’s dual-mode communication feature in order to improve flexibility and reliability of communications. Pet. 47–48 (citations omitted). We therefore determine that claim 8 would have been obvious over Ferguson, Kehr, and Surwit.

*G. Ground 4: Walker and Kehr*²

Petitioner contends that claims 1–6, 9, 11–14, 16–20, 22, 24, and 26 are unpatentable over Walker and Kehr. Pet. 48.

*1. Walker (Ex. 1008)*³

Walker describes a method and system for “monitoring a patient at a remote site from a central station.” Ex. 1008, 1:3–5. Walker’s system “provides for the programming of a patient monitoring unit at the remote site[,] . . . provides for intelligent communication between the remote side and the central office[, and] provides for the transmission of relevant data from the remote site to the central office when a critical event occurs.” *Id.* at (57). To illustrate Walker’s system, we reproduce Figure 1 of Walker, below:

² See *supra* Part II.F.

³ Our citations to Exhibit 1008 will be to the reference’s native page numbers.

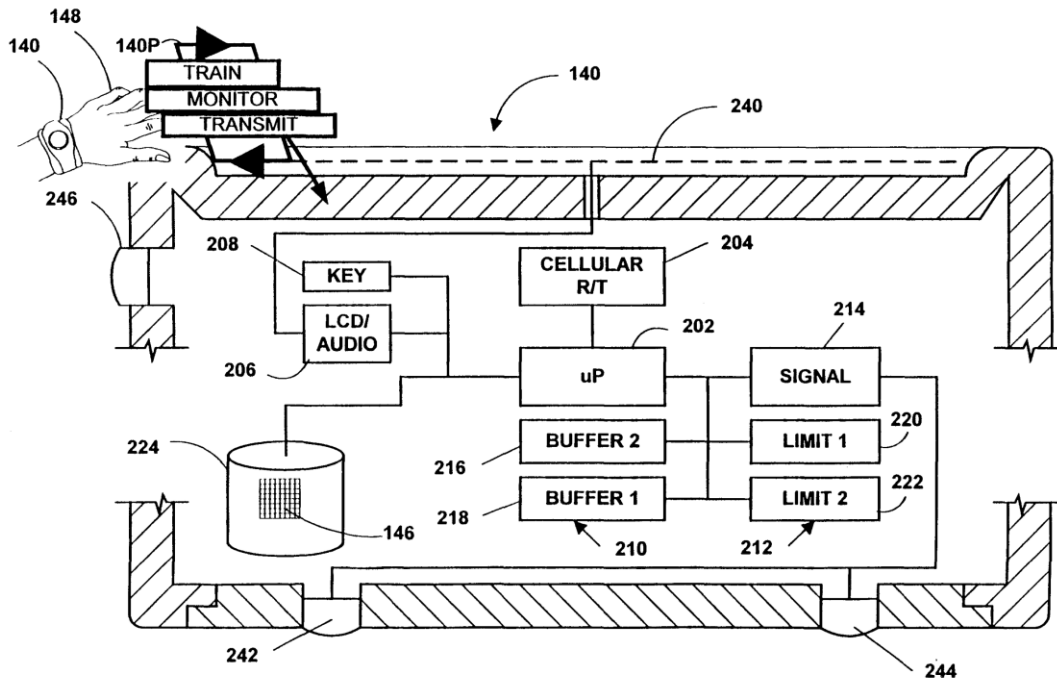


FIG. 2

Figure 2 depicts portable patient monitor 140 attached to patient 148. Monitor 140 monitors various sensors, transmits data, and trains the patient in various functions. *Id.* at 18:2–5. In operation, storage device 224 contains management record file 146 from central monitoring station 100 (shown in Fig. 1). *See id.* at 18:13–15. Signal unit 214 continuously receives a signal corresponding to the biometric parameters monitored by sensors 242, 244 and the monitored data is continuously stored in buffers 216, 218. *Id.* at 18:21–19:4. When microprocessor 202 detects that a limit has been triggered (e.g., elevated heart rate), data is passed to transceiver 204 for wireless transmission to central monitoring office 100. *Id.* at 19:5–8. When the data has been received by central monitoring office 100, additional data may be requested from the user “to confirm the severity of the bodily dysfunction.” *See id.* at 19:9–11.

2. Additional Data Set

In addressing the claimed “[CU] analyzing the initially transmitted data set to determine whether an *additional data set*” is required, Petitioner asserts that Walker teaches this step, citing to Walker’s Figure 10B, which we reproduce, below:

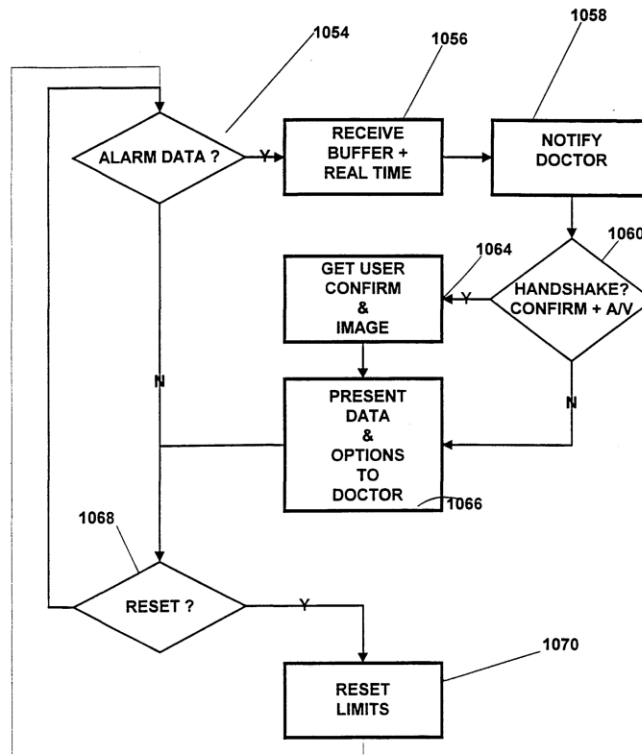


FIG. 10B

According to Petitioner, and as shown above in Figure 10B, at block 1054, an alarm condition occurs and the initially transmitted set of buffered biometric data is received by the CU. Pet. 58 (citing Ex. 1008, 39:16–40:4). Petitioner asserts that at step 1056, data is prepared for viewing and a doctor is notified at step 1058 that data is available. *Id.* According to Petitioner, at step 1060, the CU determines whether additional data (e.g., patient response to questions) is required to help confirm the patient’s condition. *Id.* (citing

Ex. 1008, 40:4–8). The cited portion of Walker discloses that “a determination is made as whether a confirmation of the alarm condition has been programmed into the protocol.” Ex. 1008, 40:4–8. Petitioner asserts that this additional set of data is related to the monitored data set, as they both reflect the patient’s health, and satisfies the claimed limitation. Pet. 58 (citing Ex. 1002 ¶ 298).

3. *As to a Time at which the Additional Data Set is to be Transmitted*

In addressing the claimed “[CU] . . . instructing the [RMU] that the additional data set . . . is to be transmitted from the [RMU] to the [CU] and *as to a time at which the additional data set is to be transmitted*,” Petitioner relies on a combination of Walker and Kehr. See Pet. 58–59. In particular, Petitioner acknowledges that Walker “does not expressly teach requesting the additional data to be sent at a time other than immediately,” but asserts that “Kehr does.” *Id.* at 59. As argued similarly in Ground 1, Petitioner asserts that “Kehr recognizes [that] medically urgent data must be sent immediately to ensure patient safety, but routine information may be sent later to make more efficient use of available resources.” *Id.* at 50 (citing Ex. 1005, 34–35).

Based on the teachings of Kehr and the testimony of Dr. Stone, Petitioner reasons that a person of ordinary skill in the art would have been motivated to modify Walker as taught by Kehr

[T]o send urgently needed information right away to ensure the patient receives immediate care, but wait to send less urgent data until more bandwidth is available, communications are less likely to be interrupted, bandwidth is cheaper, or, if applicable,

when the unit is connected to a power source rather than operating on battery power.
Pet. 49 (citing Ex. 1002 ¶¶ 260–263).

4. *Board's Analysis*

In contesting the combination of Walker and Kehr, Patent Owner argues that “Petitioner’s proposed modification does not make sense in the context of Walker’s system.” Prelim. Resp. 35 (emphasis omitted). In support of this argument, Patent Owner asserts that “[i]n Walker’s system, medical personnel . . . at the central office only make requests when they need an *immediate* response to confirm the patient’s status.” *Id.* at 36 (citing Ex. 1008, 39:10–15). Patent Owner asserts that there is no reason to delay Walker’s “transmission of information that is required to determine if there is an emergency, in the interest of saving bandwidth cost or battery usage.” *Id.*

Patent Owner’s argument is persuasive.

As acknowledged by Petitioner, “Walker does not expressly disclose instructing the RMU to transmit the additional data at any time other than immediately.” Pet. 49. Upon reviewing Walker, we agree with Patent Owner’s assertion that Walker’s “additional data set” only includes urgent communications. See Prelim. Resp. 35 (“The purpose of those requests is to allow the central office to immediately determine whether the patient is experiencing an emergency that needs immediate help.”)

As discussed above, Walker’s “additional data set” is in response to an alarm condition, and Walker discloses that this data set is “used in assessing the severity of the patient[’s] condition.” Ex. 1008, 38:4–6; see

also Pet. 57–58 (describing alarm condition (step 1054) as prompting physician review (step 1058) and the subsequent determination (step 1060) for additional data “to confirm the patient’s condition”). Walker’s additional data set may include a video feed of the patient or the patient’s responses to questions about his or her physical condition (*id.* at 40:4–8), and Walker discloses a “benefit of *minimizing the communications* between the central office and the remote site while assuring that *critical detailed patient data is transmitted to the central office in a timely manner*” (*id.* at 39:10–15 (emphases added)). Accordingly, we are not convinced that a person of ordinary skill in the art would have combined Walker and Kehr as Petitioner proposes. *See* Prelim. Resp. 35–36. To be more specific, Petitioner’s reasons for modifying Walker presumes that Walker’s “additional data set” includes non-urgent communications, and that a person of ordinary skill in the art would have delayed these non-urgent communications to conserve battery power and minimize inefficient cellular communications. *See* Pet. 49. Upon reviewing Walker, the Petition, and the declaration testimony of Dr. Stone, however, we are not persuaded that Walker’s “additional data set” includes anything other than emergency information that needs immediate transmission.

Thus, in arriving at the claimed limitation, we are not persuaded that Petitioner has articulated reasoning for the alleged combination that is adequately supported by rational underpinnings. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *cited with approval in KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (“rejections on obviousness grounds 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.”).

Petitioner’s assertions and arguments under Ground 4 are unpersuasive. Accordingly, Petitioner has not shown that claims 1–6, 9, 11–14, 16–20, 22, 24, and 26 are unpatentable over Walker and Kehr.

*H. Ground 5: Walker, Kehr, and Yasushi*⁴

Petitioner contends that claims 7, 15, 21, 23, and 25 are unpatentable over Walker, Kehr, and Yasushi. Pet. 68. Ground 5 relies on the same unpersuasive reasoning relied on and discussed *supra* with respect to Ground 4. *Id.*

Accordingly, Petitioner’s assertions and arguments under Ground 5 are also unpersuasive, and Petitioner has not shown that claims 7, 15, 21, 23, and 25 are unpatentable over Walker, Kehr, and Yasushi.

IV. MOTION TO EXCLUDE

Patent Owner seeks to exclude Exhibits 1049–1060 and 1063–1075 as inadmissible hearsay. Paper 25, 1 (“Motion”). As movant, Patent Owner has the burden of proof to establish that it is entitled to the requested relief. *See* 37 C.F.R. § 42.20(c). For the reasons stated below, Patent Owner's Motion is denied.

⁴ *See supra* Part II.F.

A. *Exhibits 1049–1055 and 1065–1075*

Patent Owner asserts that Exhibits 1049–1055 and 1065–1075 are inadmissible hearsay because “Petitioner relies on these exhibits for the truth of the matter asserted, and then further draws unreliable inferences from them.” Paper 25, 1–2. In particular, Patent Owner asserts that these exhibits contradict Dr. Stone’s testimony, as nothing in these exhibits “states that they are describing pricing for analog-only cellular plans” and “that users can use free nighttime and weekend minutes for data usage.” *See id.* at 1 (citing Ex. 2020, 41:21–42:6, 37:9–16, 38:5–7). Patent Owner explains that “the exhibits are Internet Archive captures of incomplete portions of [cellular providers’] websites and are hearsay” and “incomplete . . . [as they] do not say that they are describing [analog-only cellular] plans, as Dr. Stone admitted.” Paper 30, 1–2 (citing Ex. 2020, 41:21–42:6).

In opposition to the Motion, Petitioner responds with the following three arguments: (1) Patent Owner has failed to meet its burden of showing that the challenged exhibits should be excluded; (2) these exhibits are not hearsay as they were not offered for the truth of the matter asserted; and (3) even if these exhibits are hearsay, they are admissible under the Federal Rules of Evidence (“FRE”). Paper 29, 1–5.

We agree with Petitioner.

First, we agree with Petitioner that Patent Owner has not met its burden of explaining why these exhibits must be excluded as hearsay. *Id.* at 1. Here, Patent Owner refers to the exhibits as a whole and does not state precisely what aspect of these 18 exhibits are hearsay. *See* Paper 25, 1–2. Further, Patent Owner’s argument challenges the sufficiency of the evidence in arguing that “nothing in these [exhibits] states that they are describing

pricing for analog-only cellular plans . . . [or] states that users can use free nighttime and weekend minutes for data usage.” *Id.* at 1. By asserting that “nothing in” the exhibits support Dr. Stone’s testimony, Patent Owner’s argument is a criticism of Dr. Stone’s testimony and instead focuses on the weight that we should give to the exhibits—and its related testimony—rather than to the exhibits’ admissibility as hearsay. *See* Paper 29, 4 (“[s]uch arguments go the exhibits’ weight, not their admissibility”). Thus, it is not a proper basis for a motion to exclude.

Second, we agree with Petitioner that even if the exhibits are hearsay, the exhibits would be admissible under FRE 807. Paper 29, 3–4. To qualify for the residual exception under FRE 807, four requirements must be met: (1) the statement has equivalent circumstantial guarantees of trustworthiness; (2) it is offered as evidence of a material fact; (3) it is more probative on the point for which it is offered than any other evidence that the proponent can obtain through reasonable efforts; and (4) admitting it will best serve the purposes of these rules and the interests of justice. FRE 807. Petitioner argues persuasively that the four requirements are met. *See* Paper 29, 3–4. Regarding (1), circumstantial guarantees of trustworthiness, Petitioner points out that there “is no dispute regarding their authenticity and both parties and their experts relied on such Internet Archive Captures.” *Id.* at 3. Regarding (2), Petitioner argues that the statement is evidence of a material fact, namely, what a POSITA would have understood about cellular providers’ peak and off-peak pricing. *Id.* Regarding (3), Petitioner argues that “there is no better evidence reasonably available that shows these providers’ advertised rate plans at the time.” *Id.* at 4. Regarding (4), Petitioner argues that admitting these exhibits serves the interest of justice

“because they are relevant to key issues and the credibility of both parties’ experts, provide context for the experts’ deposition testimony, are necessary to ensuring a complete record, and [Patent Owner] does not contend that they are prejudicial.” *Id.*

Moreover, *even if* the exhibits at issue are hearsay, Dr. Stone may rely upon hearsay to form an opinion. *See* FRE 703.

Based on the foregoing, and after a careful review of the proffered evidence and arguments, we find that Exhibits 1049–1055 and 1065–1075 are admissible.

B. Exhibits 1056–1060, 1063, and 1064

Patent Owner asserts that because “Petitioner provides no evidence that VoiceStream kept its website up-to-date in 2001, or that the website capture[d] in [these exhibits] accurately reflect how VoiceStream’s network worked,” they should be excluded as unreliable hearsay. *See* Paper 25, 2 (citing Pet. Reply 13–14); *see also id.* (“Exhibit 1057 . . . should be excluded for the same reasons as Exhibits 1056, 1058–1060, 1063, and 1064”).

In its Opposition, Petitioner argues, *inter alia*, that Patent Owner has failed to meet its burden of showing that the exhibits are hearsay and, even if the exhibits are hearsay, they would fall under the residual hearsay exception of Rule 807. Paper 29, 1, 5.

We agree with Petitioner. First, we agree with Petitioner that Patent Owner has not met its burden of explaining why these exhibits must be excluded as hearsay. Paper 29, 1. Patent Owner’s argument is premised on the assertion that “Petitioner provides no evidence that VoiceStream kept its website up-to-date in 2001, or that the website capture[d] in [these exhibits]

accurately reflect how Voicestream’s network worked.” Paper 25, 2 (citing Pet. Reply 13–14). Other than providing a general criticism relating to the accuracy of the webpages, Patent Owner does not explain specifically that which is hearsay. *See id.* Furthermore, *even if* these exhibits are hearsay, we also agree with Petitioner that the exhibits should be admissible for the same reasons that Exhibits 1049–1055 and 1065–1075 are admissible under FRE 807. *See supra* Part IV.A.

Based on the foregoing, and after a careful review of the proffered evidence and arguments, we find that Exhibits 1056–1060, 1063, and 1064 are admissible.

V. CONCLUSION

We determine that Petitioner has shown by a preponderance of the evidence that: (1) claims 1–6, 9, 11–14, 16–20, 22, 24, and 26 are unpatentable over Ferguson and Kehr; (2) claims 7, 15, 21, 23, and 25 are unpatentable over Ferguson, Kehr, and Yasushi; and (3) claim 8 is unpatentable over Ferguson, Kehr, and Surwit.

VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–9 and 11–26 of U.S. Patent No. RE43,767 E are unpatentable;

FURTHER ORDERED that Patent Owner’s Motion to Exclude is denied; and

FURTHER ORDERED that 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.

IPR2017-00796
Patent RE43,767

PETITIONER:

Charles Sanders
Charles.sanders@lw.com

Jon Strang
Jonathan.strang@lw.com

Kristopher Davis
Kris.davis@lw.com

PATENT OWNER:

Ching-Lee Fukuda
clfukuda@sidley.com

Thomas Broughan
tbroughan@sidley.com