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Paper 9
Entered: April 22, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TELIT WIRELESS SOLUTIONS INC. and
TELIT COMMUNICATIONS PLC,
Petitioner,

v.

M2M SOLUTIONS LLC,
Patent Owner.

Case IPR2016-00055
Patent 8,648,717 B2

Before KALYAN K. DESHPANDE, JUSTIN T. ARBES, and DANIEL J. GALLIGAN, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge.*

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

I. INTRODUCTION

Telit Wireless Solutions Inc. and Telit Communications PLC (collectively, "Petitioner") filed a Petition ("Pet.") requesting *inter partes* review of claims 1–30 of U.S. Patent No. 8,648,717 B2 ("the '717 patent," Ex. 1101), which are all of the claims of the '717 patent. Paper 1. M2M Solutions LLC ("Patent Owner") timely filed a Preliminary Response. Paper 8 ("Prelim. Resp."). We have jurisdiction under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a).

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides:

> THRESHOLD—The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

After considering the Petition, the Preliminary Response, and associated evidence, we conclude that Petitioner has demonstrated a reasonable likelihood of prevailing in showing unpatentability of claims 1–24 and 29 of the '717 patent. Thus, we institute an *inter partes* review as to these claims.

A. Related Matters

Petitioner and Patent Owner cite a number of judicial matters in the United States District Court for the District of Delaware involving the '717 patent, as well as matters involving ancestor patents of the '717 patent. *See* Pet. 2; Paper 5. Petitioner concurrently filed another Petition for *inter partes* review challenging claims 1–30 of the '717 patent. Pet. 2–3; IPR2016-

00054. The '717 patent also is the subject of a pending *inter partes* review in *Sierra Wireless Am., Inc. et al. v. M2M Solutions LLC*, Case IPR2015-01823.

B. Illustrative Claim

The '717 patent is generally directed to a "programmable communicator device." Ex. 1101, Abstract. The '717 patent has three independent claims—claims 1, 24, and 29. Claim 1 is reproduced below:

> 1. A programmable communicator device comprising:
>
> a programmable interface for establishing a communication link with at least one monitored technical device, wherein the programmable interface is programmable by wireless packet switched data messages; and
>
> a processing module for authenticating one or more wireless transmissions sent from a programming transmitter and received by the programmable communicator device by determining if at least one transmission contains a coded number;
>
> wherein the programmable communicator device is configured to use a memory to store at least one telephone number or IP address included within at least one of the transmissions as one or more stored telephone numbers or IP addresses if the processing module authenticates the at least one of the transmissions including the at least one telephone number or IP address and the coded number by determining that the at least one of the transmissions includes the coded number, the one or more stored telephone numbers or IP addresses being numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions;
>
> wherein the programmable communicator device is configured to use an identity module for storing a unique identifier that is unique to the programmable communicator device;
>
> and wherein the one or more wireless transmissions from the programming transmitter comprises a General Packet Radio Service (GPRS) or other wireless packet switched data message;

> and wherein the programmable communicator device is configured to process data received through the programmable interface from the at least one monitored technical device in response to programming instructions received in an incoming wireless packet switched data message.

C. References

Petitioner relies upon the following references:

Eldredge	WO 95/05609	Feb. 23, 1995	Ex. 1129
Kuusela	WO 97/49077	Dec. 24, 1997	Ex. 1128
Sonera	WO 00/14984	Mar. 16, 2000	Ex. 1125
Van Bergen	WO 00/17021	Mar. 20, 2000	Ex. 1113
Falcom A2 User Manual / Command List (hereinafter "Falcom")		Oct. 4, 1999	Ex. 1130
"GSM Phase 2+ General Packet Radio Service GPRS: Architecture, Protocols, and Air Interface", IEEE COMMUNICATIONS SURVEY, vol. 2, no. 3 (1999) (hereinafter "Bettstetter")[1]		1999	Ex. 1114

Applicant's Admitted Prior Art (AAPA)—Ex. 1101, 1:52–56, which is an

[1] Based on the current record, Petitioner has made a threshold showing that Bettstetter is a prior art printed publication under 35 U.S.C. §§ 102(a) and (b). *See* Pet. 13–14; *Kyocera Wireless Corp. v. ITC*, 545 F.3d 1340, 1350–51 (Fed. Cir. 2008) (holding that a "reference is publicly accessible 'upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.'") (citation omitted). Patent Owner does not argue in its Preliminary Response that Bettstetter does not qualify as a prior art printed publication. Also, based on our analysis below, we need not determine whether Petitioner has made a threshold showing as to Falcom.

excerpt from the "Background of the Invention" section of the '717 patent.

D. Asserted Grounds of Unpatentability

Petitioner challenges claims 1–30 of the '717 patent based on the asserted grounds of unpatentability set forth in the table below.

Reference(s)	**Basis**	**Claim(s) Challenged**
Van Bergen	§ 102(b)	24–28
Van Bergen and AAPA	§ 103(a)	25–27
Van Bergen and Bettstetter	§ 103(a)	1–3, 5–18, 22, 23, 29, and 30
Van Bergen, Bettstetter, and AAPA	§ 103(a)	29 and 30
Van Bergen, Bettstetter, and Sonera	§ 103(a)	4
Van Bergen, Bettstetter, and Kuusela	§ 103(a)	19 and 20
Van Bergen, Bettstetter, and Eldredge	§ 103(a)	21
Van Bergen and Falcom[2]	§ 103(a)	24–28
Van Bergen, AAPA, and Falcom	§ 103(a)	25–27
Van Bergen, Bettstetter, and Falcom	§ 103(a)	1–3, 5–18, 22, 23, 29, and 30
Van Bergen, Bettstetter, AAPA, and Falcom	§ 103(a)	29 and 30
Van Bergen, Bettstetter, Sonera, and Falcom	§ 103(a)	4
Van Bergen, Bettstetter, Kuusela, and Falcom	§ 103(a)	19 and 20
Van Bergen, Bettstetter, Eldredge, and Falcom	§ 103(a)	21

[2] Petitioner proposes the challenges based on Falcom as alternative grounds to address the possibility of a narrower claim construction. Pet. 5, 56–58.

II. ANALYSIS

A. 35 U.S.C. § 325(d)

Patent Owner argues that the challenges in the Petition based on Bettstetter and Eldredge should be denied under 35 U.S.C. § 325(d) because these references were considered during prosecution. Prelim. Resp. 8–12. We are not persuaded that the challenges based on Bettstetter and Eldredge should be denied on this basis. Although Patent Owner provides evidence to indicate that the references were of record during the prosecution, Patent Owner has not directed us to anywhere in the record showing a substantive discussion of these references, or that the Examiner considered a challenge to the claims in the same or substantially the same manner presented in the Petition. *See* Ex. 1101, 2, 3; Ex. 2002, 4, 8 (cited at Prelim. Resp. 8–9). Thus, we are not persuaded by Patent Owner's assertion that "Petitioners and their expert do not supplement the underlying record with respect to Bettstetter and Eldredge." *See* Prelim. Resp. 12.

B. Claim Construction

1. Parties' Proposed Constructions

Petitioner proposes constructions for the following terms and phrases: "programmable," "coded number," "the transmissions including the at least one telephone number or IP address and the coded number" (single transmission), and "numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions." Pet. 8–12. Patent Owner does not disagree with Petitioner's proposed construction of "programmable," and although Patent Owner disputes Petitioner's proposed construction of "coded number," Patent Owner does not propose its own construction for this term. Prelim. Resp. 2.

Based on Petitioner's unpatentability challenges and Patent Owner's arguments, we determine that the terms "programmable" and "coded number" need not be construed explicitly at this time.

a. Single Transmission

Petitioner argues that the phrase "the transmissions including the at least one telephone number or IP address and the coded number" means that the claim "does not require that the telephone number or IP address and the coded number are in the same transmission" but, rather, that the telephone number or IP address can be in the same transmission or in a different transmission from the coded number. Pet. 9–10. Patent Owner argues Petitioner's interpretation is incorrect and that the independent claims "require[] that authentication be performed on a 'single transmission' that includes both the 'coded number' and the telephone number or IP address." Prelim. Resp. 3.

We agree with Petitioner that the claims allow for the telephone number or IP address to be in the same transmission or in a different transmission from the coded number. Patent Owner's proposed interpretation is not persuasive on the current record because the claims do not recite a "single transmission" requirement, and the language of the claims does not dictate such a requirement. The "processing module" limitation explicitly recites "authenticating one or more wireless transmissions . . . by determining if at least one transmission contains a coded number." The plain language of this limitation, therefore, states that transmissions ("one or more") can be authenticated if "at least one" has a coded number. It does not require that each transmission contain a coded number to be authenticated.

Patent Owner argues that the claim "expressly recites that authentication must be performed on 'the at least one of the transmissions including the at least one telephone number or IP address and the coded number,'" which "unambiguously provides a 'single transmission' limitation." Prelim. Resp. 3. We disagree that this language supports Patent Owner's "single transmission" construction. Claim 1 (emphasis added) recites:

> a processing module for authenticating one or more wireless transmissions sent from a programming transmitter and received by the programmable communicator device by determining if *at least one transmission* contains a coded number;
>
> wherein the programmable communicator device is configured to use a memory to store at least one telephone number or IP address included within *at least one of the transmissions* as one or more stored telephone numbers or IP addresses if the processing module authenticates *the at least one of the transmissions* including the at least one telephone number or IP address and the coded number by determining that *the at least one of the transmissions* includes the coded number, the one or more stored telephone numbers or IP addresses being numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions.

The first recitation of "at least one of the transmissions" above dictates that there may be a single transmission or multiple transmissions. The claim then recites in two instances "the at least one of the transmissions," taking antecedent basis from the previous recitation. If there are multiple transmissions, we see no reason why the "at least one telephone number or IP address and the coded number" need to be in a single transmission, as Patent Owner contends. For example, a telephone number could be included in one transmission and a coded number in another transmission, such that

both are the recited "at least one of the transmissions." The processing module authenticates by determining if either of the transmissions includes the coded number.

Patent Owner also argues that Petitioner's proposed construction in this proceeding is in conflict with positions Petitioner has taken in district court litigation involving the '717 patent. Prelim. Resp. 3 (citing Ex. 1108, 4). However, we are not bound by positions taken by an accused infringer in district court litigation.

Although the scope of the claims encompasses Patent Owner's proffered construction, the claims are not limited to Patent Owner's construction. Accordingly, on the record before us, we do not agree with Patent Owner's interpretation of the independent claims as including a "single transmission" requirement. Rather, we agree with Petitioner that the claims allow the telephone number or IP address to be in the same transmission or in a different transmission from the coded number. *See* Pet. 9–10. No further interpretation is necessary at this time.

b. "numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions"

Petitioner contends "numbers to which the programmable communicator device is 'configured to and permitted to send outgoing wireless transmissions' are numbers to which the programmable communicator device is 'allowed to send outgoing wireless transmissions.'" Pet. 10 (citing Ex. 1105[3] ¶¶ 62–67). Petitioner argues that the '717 patent

[3] We consider Petitioner's citations here and elsewhere to Exhibit 1005, which is not evidence of record in this proceeding, to be typographical errors intending to refer to Exhibit 1105, which is the Declaration of Kimmo

discloses call screening for incoming calls, not outgoing calls, and that the claim is written to reflect that the device is "built to make calls, not to restrict calls." *Id.* at 10–12 (citing Ex. 1101, 8:26–31, 9:61–63. Figs. 2, 3; Ex. Ex. 1104, 31).

Patent Owner counters that the language "numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions" requires a "restrictive outbound calling list." Prelim. Resp. 4. First, Patent Owner argues that the parties agreed in litigation that recitation of "permitted to" limits the programmable communicator device to sending outgoing transmissions to only those numbers. *Id.* (citing Ex. 1108, 6). Again, however, we are not bound by positions taken by parties in district court litigation.

Patent Owner also argues that, contrary to Petitioner's assertion, the '717 patent "contains multiple examples" of an outbound calling list that is restrictive. *Id.* at 5. For example, Patent Owner argues that the '717 patent "describes the programmable communicator device as having a 'means to prevent the . . . dialing [of certain] numbers,' such as overseas international numbers." *Id.* (quoting Ex. 1101, 2:20–23 (brackets in original)). However, the cited passage, in its entirety, states: "Clearly there is a need to provide a means to limit the cost of calling and also to provide a means to prevent the child dialing overseas numbers for extensive periods of time." Ex. 1101, 2:20–23. This does not describe the claimed "programmable communicator device" as having such a "means"; rather, it identifies a need for such a "means." Patent Owner does not direct us to disclosure within the '717

Savolainen. However, going forward, the parties should take care to cite evidence accurately so as not to confuse the record.

patent describing the structure for such a "means to prevent the child dialing overseas numbers for extensive periods of time." The other passage cited by Patent Owner also describes a goal outlined in the Background section of the '717 patent: "An improved child Hotlink communicator, which restricts the usage of the mobile phone and thereby does not generate high charges through uncontrolled calling, is clearly a solution to the family tariffing challenge." *Id.* at 2:28–32. Although these passages arguably identify a problem in the art (high charges from uncontrolled calling), Patent Owner has not directed us to disclosure within the '717 patent describing the particular mechanisms by which the solutions to these problems are achieved, let alone disclosure explaining that the language "permitted to" in the claims is restrictive in nature.

Patent Owner also argues "Petitioners seek to read the 'permitted to' limitation out of the claim language by arguing that it should be given the same meaning as the 'configured to' limitation that is already present in the claim language." Prelim. Resp. 6 (citing Pet. 12). Petitioner's argument, however, merely points out that the applicant for the '717 patent, during prosecution, stated that it "believe[s] that 'configured to,' in the context of the claim, meant the device was capable of and permitted to second outgoing wireless transmissions" and that the applicant amended the claim to add "permitted to" to expedite prosecution. Pet. 12 (quoting Ex. 1104, 31). Patent Owner argues that this portion of the prosecution history shows "the Examiner believed that the term 'permitted to' meant something different from 'configured to.'" Prelim. Resp. 6–7. However, we are not persuaded based on the current record that this excerpt from the prosecution history imparts a restrictive meaning on "permitted to."

On the current record, we are not persuaded by Patent Owner's argument that the phrase "configured to and permitted to" is restrictive in nature such that the claims require a "restrictive outbound calling list." However, we also do not agree that "configured to and permitted to" means "allowed," as proposed by Petitioner, because this does not account for the "configured to" language from the claims. Rather, applying the broadest reasonable interpretation in light of the Specification, we interpret the phrase "numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions" to mean numbers to which the programmable communicator device is capable of sending outgoing wireless transmissions and permitted to send outgoing wireless transmissions.

2. Remaining Claim Terms

We determine that no other claim terms require express construction at this time.

C. References

1. Van Bergen

Van Bergen discloses a security system called "CELL-EYE," which "includes a controller and memory unit for the verification of the identity of incoming calls, and the activation, deactivation and programming of the CELL-EYE via validated incoming calls received by an alarm linked GSM [global system for mobile communication] mobile unit and modem from a remote GSM mobile unit." Ex. 1113, Abstract. Van Bergen discloses an advantage of the disclosed system is that it

> allows the owner to remotely activate or program the security system by means of a telephone call from the owner's cellular phone to the CELL-EYE installed in the vehicle or property.

> Such programming could include periodic customization of the level of security appropriate for a particular situation and presetting alarm parameters such as the numbers that must be dialled when an alarm condition is detected, how frequently such calls need to be repeated and what to do if connection to a particular called number is not available at the time. Remote activation and programming of the device also alleviates the need for a user accessible interface to the CELL-EYE system.

Id. at 2:53–3:7.

2. Bettstetter

Bettstetter describes the General Packet Radio Service (GPRS) for GSM, which "is a new bearer service for GSM that greatly improves and simplifies wireless access to packet data networks, e.g., to the Internet." Ex. 1114, Abstract.

3. Sonera

Sonera teaches that Bluetooth technology "makes it possible to establish a wireless connection between a mobile telephone and e.g. a portable computer" and "enables devices to be interconnected via a short-range radio link" "without cumbersome cabling." Ex. 1125, 2:19–33.

4. Kuusela

Kuusela teaches

> an auxiliary unit intended to be coupled to a digital wireless telephone. This auxiliary unit comprises a basic element, which contains the components necessary for data transmission, analyses and storage. The auxiliary unit also comprises a sensor element, which contains a sensor suitable for the non-invasive follow-up of a person's bodily functions, as well as the special electronics required by this sensor.

Ex. 1128, 1:23–28.

5. Eldredge

Eldredge relates to "systems for monitoring the operation of one or more remote vending machines and transmitting data from the remote vending machines to a central computer system." Ex. 1129, 1:5–8.

6. Falcom

The Falcom A2 GSM mobile unit with modem is identified as a preferable mobile unit for implementation of the system disclosed in Van Bergen. Ex. 1113, 7:33. The Falcom reference is a manual "focussed [sic] on the GSM data solutions of the FALCOM A2 series," and "[i]t contains information about the FALCOM A2 embedded GSM module, the FALCOM A2-1 GSM modem and phone and the A2 evaluation board." Ex. 1130, 5 ("Introduction").

7. Alleged Applicant's Admitted Prior Art (AAPA)

Petitioner identifies the following passage from the "Background" section of the '717 patent as alleged AAPA: "Existing and known methods of communication between the mobile phone and Hotlink communicator for the purpose of programming comprise the obvious choice of data calls such as the Short Message Service in the GSM telecommunications standard." Ex. 1101, 1:52–56.

D. Unpatentability Challenge based on Van Bergen under § 102 (Claims 24–28)

1. Claim 24

Petitioner contends Van Bergen anticipates claim 24. Pet. 17–28, 46–47.

a. "Programmable communicator device" having a "programmable interface"

Claim 24 is directed to a "programmable communicator device" having "a programmable interface for establishing a communication link with at least one monitored technical device." Petitioner contends Van Bergen's "CELL-EYE" system discloses a "programmable communicator device" having a "programmable interface" as claimed. Pet. 17–19. Petitioner argues that the "alarm sensor interface" is a programmable interface that receives input from "disturbance sensors" and that is programmable by a remote "reset" function. *Id.* at 18–19 (citing Ex. 1113, 5:7–10, 6:20–31, 6:35–38, 6:41–42, 8:49–50, 10:12–13, Fig. 2). Van Bergen discloses that the system

> is designed to be linked to input devices installed in the same property of vehicle namely the disturbance sensors 11 which form part of the vehicle or property security system 12 which has alarm outputs. The alarm outputs are detected and converted to digital form by the alarm sensor interface 13 which forms part of the CELL-EYE system.

Ex. 1113, 5:7–10. Van Bergen discloses that "[t]he alarm sensor interface 13 contains circuits to perform . . . a reset function which resets the output signals of the alarm sensor interface after the reception of digital inputs from the ALU 16 via the modem 15 and the controller and memory unit 14." *Id.* at 6:31–38.

b. "Processing module for authenticating"

Claim 24 further recites that the "programmable communicator device" has "a processing module for authenticating one or more wireless transmissions sent from a programming transmitter and received by the programmable communicator device by determining if at least one

transmission contains a coded number." Petitioner contends Van Bergen's "controller" is a "processing module" that authenticates incoming transmissions from the remote messaging unit (RMU) by determining if at least one transmission contains a PIN code. Pet. 21–22 (citing Ex. 1113, 4:11–20, 4:37–42, 6:39–44, 6:50–51, 10:30–35). Van Bergen discloses that "[t]he controller and memory unit 14 comprises a micro controller with nonvolatile memory and associated digital circuits and software to . . . compare a PIN code received from the RMU with the code stored in memory and generate[] the AT commands to send a confirmation message to the RMU if the PIN code is accepted." Ex. 1113, 6:42–51; *see also id.* at 4:13–16 ("[A]ny communication from a hand-held GSM cellular phone to the CELL-EYE is a secure communication conditioned on the use of two valid PIN codes, one for activating the hand-held GSM unit and the other for communicating to the unattended GSM mobile unit.").

c. "Store at least one telephone number or IP address"

Claim 24 further recites:

> wherein the programmable communicator device is configured to use a memory to store at least one telephone number or IP address included within at least one of the transmissions as one or more stored telephone numbers or IP addresses if the processing module authenticates the at least one of the transmissions including the at least one telephone number or IP address and the coded number by determining that the at least one of the transmissions includes the coded number, the one or more stored telephone numbers or IP addresses being numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions.

Petitioner contends Van Bergen discloses this limitation by disclosing that the system can update stored telephone numbers if the controller

receives a valid PIN code. Pet. 23–24 (citing Ex. 1113, 2:51–3:4, 6:42–44, 6:50–51, 7:1–3, 10:33–34, 11:14–16). For example, Van Bergen discloses that "[t]he controller and memory unit 14 comprises a micro controller with nonvolatile memory and associated digital circuits and software to . . . updat[e] the phone number to be used for automatic notification of a security violation." Ex. 1113, 6:42–7:2. Van Bergen further discloses that "[o]nly after the provision of a valid PIN code will the installed GSM mobile unit permit the user to activate or deactivate the said CELL-EYE system or change any of the stored numbers, codes or parameters of the system." *Id.* at 11:14–16. Petitioner also argues the stored numbers are "numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions" because Van Bergen discloses that these are "stored numbers to which outgoing calls should be made in response to certain alarm conditions." Pet. 25–26 (quoting Ex. 1113, 10:33–34; citing 3:2–4, 7:2–3, 11:14–16).

Patent Owner argues Van Bergen does not disclose the "wherein" limitation above because it does not disclose authenticating a "single transmission" that includes both the "coded number" and the telephone number to be stored. Prelim. Resp. 21–23, 51. As we explain above in the section addressing claim construction, we do not agree with Patent Owner's interpretation that the claims recite a "single transmission" requirement in which the telephone number or IP address and the coded number must be in the same transmission. Thus, on the present record, we are not persuaded by Patent Owner's "single transmission" arguments. *See id.*

Patent Owner also argues that the telephone number must be stored in a "restrictive outbound calling list." Prelim. Resp. 4–7, 26, 51–52. As we

explain above, we also are not persuaded by Patent Owner's proposed construction that "numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions" must be a "restrictive outbound calling list." Rather, the current evidence of record supports Petitioner's argument that Van Bergen discloses numbers to which the CELL-EYE system is "configured to and permitted to send outgoing wireless transmissions." *See, e.g.*, Ex. 1113, 3:2–4 ("Such programming could include periodic customization of the level of security appropriate for a particular situation and presetting alarm parameters such as the numbers that must be dialed when an alarm condition is detected . . . .").

d. "Identity module"

Claim 24 further recites: "wherein the programmable communicator device is configured to use an identity module for storing a unique identifier that is unique to the programmable communicator device." Petitioner contends Van Bergen's teaching of using a Subscriber Identity Module (SIM) card discloses this limitation. Pet. 26 (quoting Ex. 1113, 7:34–35). Van Bergen discloses: "This unit is a fully type approved cellular phone. It has the facility for an internal or external SIM card." Ex. 1113, 7:34–35.

e. "Process data"

Claim 24 further recites: "wherein the programmable communicator device is configured to process data received through the programmable interface from the at least one monitored technical device." Petitioner contends Van Bergen discloses that the controller of the CELL-EYE system processes data received from the alarm sensor interface, which is received from a monitored technical device, such as a vehicle or property security

system. Pet. 27 (citing Ex. 1113, 2:1–3, 6:29–31, 6:39–42). Van Bergen discloses "[t]he controller and memory unit 14 which form part of the said CELL-EYE system is intended to control the operation of the CELL-EYE system through . . . the processing of DATA it receives from either the alarm sensor interface 13 or the ALU." Ex. 1113, 6:39–42. Van Bergen discloses that alarm outputs from the vehicle or property security system "are detected and converted to digital form by the alarm sensor interface 13" of the CELL-EYE system. *Id.* at 5:7–10.

f. Claim 24 Conclusion

Upon review, we determine that the record before us demonstrates a reasonable likelihood that Petitioner would prevail on its assertion that claim 24 is anticipated by Van Bergen. Petitioner's explanation of how each claim limitation is disclosed by Van Bergen is supported by the current record and persuasive at this stage. *See* Pet. 17–27, 46–47.

2. Dependent Claims 25–27

For its assertion that claims 25–27 are anticipated by Van Bergen, Petitioner provides only cursory references to other claims with no substantive analysis. *See* Pet. 47–48. For example, with respect to alleged anticipation of claim 25, Petitioner's entire contention is: "See claim 1 [h] above, replacing the discussion of packet switched in claim 1 [b] with the discussion of SMS in claim 29 [g]." Pet. 47 (emphases removed). Petitioner's contentions with respect to claims 26 and 27 also lack substantive analysis. *See id.* at 48 (emphases removed) (claim 26 ("See claims 5, 12 and 25, above, replacing the discussion of packet switched, with the discussion of SMS for claim element 29 [g]."); claim 27 ("See claim 1 [a] above and the discussion of SMS for claim 29 [g].")).

Claim limitation "29 [g]" refers to the limitation of claim 29 reciting "wherein the one or more wireless transmissions from the programming transmitter containing instructions to program the stored number comprise one or more short message service (SMS) data messages." Pet. 43. Petitioner does not explain how its discussion of "instructions to program the stored number" with respect to claim 29 applies to instructions to process data (claim 25), request data (claim 26), or program the interface (claim 27). *See* 37 C.F.R. § 42.104(b) (The petition must "[p]rovide a statement of the precise relief requested for each claim challenged. . . . The petition must specify where each element of the claim is found in the prior art patents or printed publications relied upon . . . . The Board may exclude or give no weight to the evidence where a party has failed to state its relevance or to identify specific portions of the evidence that support the challenge."); *see also* 37 C.F.R. § 42.22(a)(2) (a petition must include a "full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence"). The language of the claims is different, and Petitioner has not sufficiently identified and explained the bases for its asserted ground as to claims 25–27.

Thus, we are not persuaded Petitioner has made a sufficient showing that claims 25–27 are anticipated by Van Bergen.

3. Dependent Claim 28

Claim 28 recites: "A programmable communicator device according to claim 24 wherein the processing module processes received data to determine whether it indicates a change in status of the at least one monitored technical device that crosses a threshold parameter, or that otherwise indicates an alarm condition." Petitioner's entire contention that

Van Bergen anticipates claim 28 is: "See claims 2 and 10 above omitting the discussion of packet switched." Pet. 48.

With respect to claim 2, Petitioner contends the "controller and memory unit" in Van Bergen disclose the "processing module" that processes data (*id.* at 28), but claim 2 does not require processing data for any particular purpose, let alone "to determine whether [received data] indicates a change in status of the at least one monitored technical device that crosses a threshold parameter, or that otherwise indicates an alarm condition," as recited in claim 28, and Petitioner's explanation with respect to claim 2 does not address such data processing. *See id.* at 28. Although claim 10 recites the same data processing as claim 28 to determine alarm conditions, claim 10 requires that the "programmable communicator device" is configured to perform this data processing, rather than the "processing module" of the "programmable communicator device," as recited in claim 28. For claim 10, Petitioner contends "[t]he data received over [the] alarm sensor interface is 'processed' by alarm sensor interface 13" to determine alarm conditions. *Id.* at 33. Thus, Petitioner's contentions with respect to claims 2 and 10 identify two different structures for the respective data processing of the claims. Petitioner's cursory reference to claims 2 and 10 does not explain which structure in Van Bergen Petitioner contends is the "processing module" that performs the particular data processing required in claim 28. *See* 37 C.F.R. § 42.104(b).

Thus, we are not persuaded Petitioner has made a sufficient showing that claim 28 is anticipated by Van Bergen.

4. Conclusion

We determine that the record before us demonstrates a reasonable likelihood that Petitioner would prevail on its assertion that claim 24 is anticipated by Van Bergen. However, we are not persuaded that the record before us demonstrates a reasonable likelihood that Petitioner would prevail on its assertion that claims 25–28 are anticipated by Van Bergen.

E. Unpatentability Challenge based on the Combination of Van Bergen and Alleged Applicant Admitted Prior Art under § 103 (Claims 25–27)

Petitioner offers an alternative challenge to claims 25–27 based on alleged applicant admitted prior art (AAPA) in the event "the Board determines that the Cell-Eye was not programmable by SMS." Pet. 48–49. As explained above, Petitioner does not make a sufficient allegation of anticipation for us to make a determination regarding programmability by SMS with respect to claims 25–27. Furthermore, the passage of the '717 patent Petitioner identifies as alleged AAPA discusses using SMS to program phone numbers. *See* Ex. 1101, 1:46–61. Petitioner does not explain sufficiently how alleged AAPA that discusses using SMS to program phone numbers applies to instructions to process data (claim 25), request data (claim 26), or program the interface (claim 27). *See* 37 C.F.R. § 42.104(b).

Thus, we decline to institute based on Petitioner's "alternative" ground of unpatentability as to claims 25–27 based on the combination of Van Bergen and alleged applicant admitted prior art.

F. Unpatentability Challenge based on the Combination of Van Bergen and Bettstetter under § 103 (Claims 1–3, 5–18, 22, 23, 29, 30)

1. Independent Claim 1

Petitioner contends that the subject matter of independent claim 1 would have been obvious over the combination of Van Bergen and Bettstetter, providing analysis and arguments to explain how the cited prior art references allegedly teach the claimed subject matter. Pet. 17–28.[4]

Claim 1 includes all of the limitations recited in claim 24 and discussed above, as well as additional limitations. Below we address those limitations of claim 1 that are not recited in claim 24.

a. "Programmable communicator device" having a "programmable interface . . . programmable by wireless packet switched data messages"

Similar to claim 24, claim 1 is directed to a "programmable communicator device" having "a programmable interface for establishing a communication link with at least one monitored technical device," but claim 1 additionally recites "wherein the programmable interface is programmable by wireless packet switched data messages." As explained above, Petitioner argues that the "alarm sensor interface" is a programmable interface that receives input from "disturbance sensors" and that is

[4] Based on the current record, we conclude that the skill level of a person of ordinary skill in the art, at the relevant time for the '717 patent (May 2000), would have been at least an undergraduate degree in electrical engineering and three years of experience working the development of wireless subscriber terminal systems or components, or an equivalent combination of education and experience in related fields. *See Sierra Wireless Am., Inc. et al. v. M2M Solutions LLC*, Case IPR2015-01823, slip op. at 11 n.4 (PTAB Mar. 8, 2016) (Paper 16).

programmable by a "reset" function. Pet. 18–19 (citing Ex. 1113, 5:7–10, 6:20–31, 6:35–38, 6:41–42, 8:49–50, 10:12–13, Fig. 2). Petitioner argues that "[t]he 'reset' function is activated in response to inputs from the ALU and modem, [Ex. 1113, 6:37–38], i.e., via a wireless data message over the GSM mobile network." *Id.* at 19 (citing Ex. 1113, 10:12–13, 8:49–50).

Patent Owner argues "there is no disclosure or teaching in Van Bergen that the reset command is a *wireless programming instruction* that the CELL-EYE system receives over-the-air from a remote device in a wireless data message." Prelim. Resp. 18–19. Rather, according to Patent Owner, the reset command is issued by the ALU, which is internal to the CELL-EYE system and is not sent wirelessly. *Id.*

Van Bergen teaches "a reset function which resets the output signals of the alarm sensor interface after the reception of *digital inputs from the ALU 16 via the modem 15* and the controller and memory unit 14." Ex. 1113, 6:37–38 (emphasis added). Van Bergen discloses that the modem is "for the reception and transmission of DATA and SMS messages via the GSM mobile network." *Id.* at 10:12–13. Therefore, we are persuaded on this record that Van Bergen's disclosure of receiving an input "via the modem" teaches receiving that input wirelessly.

Petitioner acknowledges Van Bergen, which discloses the use of GSM for wireless communications, does not disclose wireless "packet switched" communications. Pet. 19. Petitioner then argues GSM evolved in the late 1990s to include wireless packet-switched communications, such as general packet radio service (GPRS), as evidenced by the teachings of Bettstetter. *Id.* at 19–20 (citing Ex. 1114 p. 2 (left): 8–14 – (right):5; Ex. 1115, 4 (left): 21 – 4 (right:16); Ex. 1117, 28 (left): 30–38; Ex. 1105 ¶¶ 47–48). Bettstetter

discloses that "GPRS is a new bearer service for GSM that greatly improves and simplifies wireless access to packet data networks, e.g., to the Internet." Ex. 1114, 1:3–5 (right col.). Bettstetter explains that "GPRS improves the utilization of the radio resources, offers volume-based billing, higher transfer rates, shorter access times, and simplifies the access to packet data networks." Ex. 1114, 2:1–5 (left col.).

Petitioner contends "[i]t would have been obvious to a [person of ordinary skill in the art] to follow the evolution of wireless technology to 2G+ to use the most recent packet-switched communication available to achieve all of these benefits." Pet. 20. Petitioner argues one such benefit would be increasing the speed of communications. *Id.* (citing Ex. 1113, 7:28; Ex. 1114, 2 (right): 13–18); *id.* at 17. Citing the testimony of its declarant, Mr. Kimmo Savolainen, Petitioner argues that "[a]dapting the Cell-Eye to use wireless packet switched communication would have involved nothing more than following the evolution of wireless technology to the next generation of 2G+ standards, which was a matter of routine engineering and would have yielded predictable results." *Id.* at 20–21 (citing Ex. 1105 ¶ 105). Mr. Savolainen explains:

> Implementing wireless packet switched communication was a matter of routine engineering that was specified by the GSM standard, a global standard unifying wireless protocols across the globe, which instructed engineers of exactly how to configure devices using GPRS. In fact, the '717 Patent gives no instruction or explanation as to how to implement wireless packet switched or GPRS technologies, indicating that this would have been the routine knowledge of a person of ordinary skill in the art.

Ex. 1105 ¶ 105.

Patent Owner argues that Petitioner's obviousness analysis is inadequate and, therefore, the proffered combination of Van Bergen and

Bettstetter should be rejected. Prelim. Resp. 13–16, 19–21, 31–33. First, Patent Owner argues "the petition is silent as to what differences there are between the subject matter of any of the claims and either Van Bergen and/or Bettstetter," and, therefore, Petitioner has not articulated the differences between the claimed invention and the prior art. *Id.* at 14. We disagree because, as noted above, Petitioner specifically acknowledges Van Bergen does not disclose wireless "packet switched" communications. Pet. 19. Therefore, Petitioner has articulated at least one difference between Van Bergen and the subject matter of claim 1.

Patent Owner also argues Petitioner has not provided an adequate rationale to combine Van Bergen and Bettstetter. Prelim. Resp. 15–16, 19–21. Patent Owner argues Petitioner provides no support for its assertions that it would have been obvious to follow the evolution of GSM to include packet-switching or that it would have been a matter of routine engineering and yielded predictable results. *Id.* at 19–20. Patent Owner further argues Petitioner provides no evidence that a technology trend to add GPRS functionality to telemetry products was occurring on the '717 priority date, and "Petitioner[] fail[s] to identify any telemetry product that supported GPRS transmission protocols in May of 2000." *Id.* at 32.

On the current record, we are persuaded Petitioner has provided sufficient articulated reasoning supported by evidence in the record to support the combination of Van Bergen and Bettstetter. In particular, Petitioner's declarant provides testimony that "[t]elemetry products, like all telecommunication devices, generally used the most recent and advanced communication protocols available at the time" and that "[a] person of ordinary skill in the art working in the field of telecommunications at the

time of the earliest priority date would have been aware of all of these wireless protocols and would have known how to build devices that used them." Ex. 1105 ¶¶ 47, 49. Bettstetter discloses, as of its purported publication in 1999, that "GPRS is a new bearer service for GSM." Ex. 1114, 1:3 (right col.).

b. GPRS or packet switched messages

Claim 1 also recites: "wherein the one or more wireless transmissions from the programming transmitter comprises a General Packet Radio Service (GPRS) or other wireless packet switched data message." As explained above, Petitioner argues Van Bergen discloses wireless communications using GSM but does not disclose that the data received by the CELL-EYE system is "packet switched." Pet. 14, 17, 19. Petitioner then argues that the combination of Van Bergen and Bettstetter teaches the use of GPRS packet-switched communications in GSM networks. *Id.* at 19–21.

Patent Owner argues that, even if a rationale existed for the combination of Van Bergen and Bettstetter, the combination still would not teach using GPRS messages as taught in Bettstetter for programming phone numbers in the Van Bergen system. Prelim. Resp. 33. Patent Owner characterizes Petitioner's argument as relying on inherency: "Petitioners conclude that if protocol support for GPRS data messages were to be added to the CELL-EYE system, Van Bergen inherently teaches that they too could be used by remote devices for sending wireless programming instructions." *Id.* at 34. Patent Owner argues that such an inherency argument fails because Van Bergen teaches "that only 'DATA messages' in particular, and not 'SMS messages,' can be used for sending wireless programming

instructions to the CELL-EYE," and, therefore, "there is no inherent teaching in Van Bergen that, if protocol support for GPRS data messages were to be added to the CELL-EYE system, those messages necessarily would be used by remote devices for sending wireless programming instructions, as the claim language requires." *Id.*

We are not persuaded by Patent Owner's arguments regarding inherency because they are not responsive to Petitioner's contention of obviousness. Specifically, we understand Petitioner's argument to be that it would have been obvious to use GPRS packet-switched communications for communicating in the system of Van Bergen in light of the teachings of Bettstetter. Pet. 19–21 (arguing that "[a]dapting the Cell-Eye to use wireless packet switched communication" would have been obvious). We are not persuaded Petitioner is arguing that the use of GPRS or packet-switching would have been inherent in Van Bergen.

Patent Owner also argues "Van Bergen teaches that only DATA messages sent over a circuit-switched telephone call should be used for transmitting programming instructions." Prelim. Resp. 37. Therefore,

> [c]onsistent with the teachings of Van Bergen, a person of ordinary skill in the art would have been more likely to have simply upgraded the CELL-EYE system to this HSCSD [(High-Speed Circuit-Switched Data)] service which it had already been designed to utilize rather than to try to completely overhaul the CELL-EYE so as to make it compatible with GPRS technology.

Id. at 38. On the current record, we do not find this argument persuasive because even if it were true that an alternative solution based on circuit-switched technology more likely would have been chosen by a person of ordinary skill in the art, that in itself does not demonstrate non-obviousness of using packet-switched technology, which the evidence demonstrates was

also a known technology with certain advantages (e.g., communication speed). Rather, this would simply demonstrate a person of ordinary skill in the art would recognize there are a number of options to pursue. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 421 (2007).

c. "Process data"

Claim 1 also recites (emphasis added): "wherein the programmable communicator device is configured to process data received through the programmable interface from the at least one monitored technical device *in response to programming instructions received in an incoming wireless packet switched data message*." The emphasized portion of the limitation does not appear in claim 24. As discussed above, Petitioner contends Van Bergen discloses that the controller of the CELL-EYE system processes data received from the alarm sensor interface, which is received from a monitored technical device, such as a vehicle or property security system. Pet. 27 (citing Ex. 1113, 2:1–3, 6:29–31, 6:39–42). For example, Petitioner argues Van Bergen discloses processing received data to detect "a number of alarm conditions which correspond to irregular or willful disturbance of the vehicle or property." *Id.* (quoting Ex. 1113, 2:1–3). Petitioner argues "[a]nalyzing data to determine whether it satisfies alarm conditions is 'processing.'" *Id.* (citing Ex. 1105 ¶ 122). Petitioner further argues that "[t]hese 'alarm conditions' correspond to 'alarm parameters,' . . . which are programmable in response to remote programming instructions" received in an incoming wireless data message. *Id.* (citing Ex. 1113, 2:51–3:3, 8:49–50, 11:21). Van Bergen discloses:

> A further advantage of the two-way communication between an owner and the protected which is possible with the present invention, is the facility which allows the owner to *remotely*

> *activate or program* the security system by means of a telephone call from the owner's cellular phone to the CELL-EYE installed in the vehicle or property. Such programming could include periodic customization of the level of security appropriate for a particular situation and *presetting alarm parameters* such as the numbers that must be dialled when an alarm condition is detected, how frequently such calls need to be repeated and what to do if connection to a particular called number is not available at the time.

Ex. 1113, 2:51–3:5 (emphasis added). Petitioner argues that programming by packet-switched incoming wireless messages would have been obvious in view of the teachings of Bettstetter. Pet. 19–21, 28.

Patent Owner argues "alarm parameter instructions do not relate to data processing, but rather to programming what actions controller 14 should take in response to receiving an alarm output signal from vehicle or property security system 12." Prelim. Resp. 39. However, Patent Owner has not explained sufficiently how receiving an alarm output signal (i.e., data) and determining what actions to take in response is not data "processing." The '717 patent does not appear to have a definition of data "processing" that would exclude such data analysis.

d. Reference to Additional "GSM Protocol" Reference

Patent Owner also argues Petitioner improperly relies on an "unidentified 'GSM protocol'" to argue that a PIN code and telephone number could be sent in a single transmission. Prelim. Resp. 14–15 (citing Pet. 24). The argument cited by Patent Owner addresses the possibility of a narrower construction, specifically if the claims require a single transmission to include both the coded number and the telephone number. *See* Pet. 24 ("[T]o the extent that the claims are construed narrowly to require that one (single) transmission includes both the coded number and the telephone

number . . . ."). As we explain above in the section addressing claim construction, there is no such "single transmission" requirement in the claims. Therefore, we need not address this alternative argument of Petitioner.

e. Claim 1 Conclusion

Upon review, we determine that the record before us demonstrates a reasonable likelihood that Petitioner would prevail on its assertion that claim 1 would have been obvious in view of Van Bergen and Bettstetter. Petitioner's explanation of how each claim limitation is taught by the combination of prior art references is supported by the current record and persuasive at this stage. *See* Pet. 17–28.

2. Independent Claim 29

Petitioner contends that the subject matter of independent claim 29 would have been obvious over the combination of Van Bergen and Bettstetter, providing analysis and arguments to explain how the cited prior art references allegedly teach the claimed subject matter. Pet. 17–28, 42–45.

Claim 29 recites the same limitations as claim 1, except for the final two "wherein" clauses, which are discussed below.

a. SMS messages

Claim 29 recites (emphasis added): "wherein the one or more wireless transmissions from the programming transmitter *containing instructions to program the stored number comprise one or more short message service (SMS) data messages*." The emphasized portion differs from claim 1.

Petitioner contends Van Bergen teaches programming using "validated incoming calls" that included both DATA and SMS messages.

Pet. 43 (citing Ex. 1113, Abstract, 2:25–26, 2:51–3:2, 7:38–39, 11:12–14). Van Bergen discloses remote programming, "by means of a telephone call from the owner's cellular phone," including programming "the numbers that must be dialled when an alarm condition is detected." Ex. 1113, 2:51–3:5. Van Bergen discloses "[t]he GSM mobile unit will be configured for voiceless DATA and SMS mode operation." *Id.* at 7:38–39.

Patent Owner argues:

> Petitioner[] fail[s] to identify any disclosure or teaching in Van Bergen of an SMS data message that would constitute the required 'single transmission' by comprising both the ostensible PIN code 'coded number' as well as a telephone number or IP address for use in editing the alarm notification calling list as required by element (d).

Prelim. Resp. 41. As we explain above in the section addressing claim construction, we do not agree with Patent Owner's interpretation that the claims recite a "single transmission" requirement in which the telephone number or IP address and the coded number must be in the same transmission. Furthermore, claim 29 recites "one or more short message service (SMS) data messages," not "one SMS data message," and, therefore, Patent Owner's argument that Van Bergen does not teach "an SMS data message that would constitute the required 'single transmission'" is unpersuasive because it is not commensurate in scope with the recited claim language.

Patent Owner also argues "Van Bergen expressly teaches is that [sic] *only* DATA message transmissions, and *not* SMS message transmissions, could be used" to send wireless programming instructions to the programmable communicator device. Prelim. Resp. 35. Patent Owner further argues "[t]he term 'incoming call' can only reasonably be understood

as a reference to the circuit-switched telephone calls used for transmitting DATA messages, and by contrast an SMS message transmission obviously would not be regarded as a 'call.'" *Id.* at 36. We are not persuaded on the current record because, as Petitioner points out, Van Bergen expressly teaches "an incoming call carrying a coded Short Message Service (SMS) message." Ex. 1113, 2:25–26 (cited at Pet. 43). Patent Owner argues "this passage does not describe an SMS data message transmission, but rather the unusual circumstance where a DATA message using the standardized coded format of an SMS message is sent over a circuit-switched telephone call – i.e., it is an 'incoming call carrying . . . an SMS message.'" Prelim. Resp. 36. However, the '717 patent suggests that an SMS data message may include such an SMS message in a circuit switched call: "In the pre-programming phase, the communicator is programmed with the number it can call which comprises a unique code. By way of example only, the invention is now described in the context of the GSM mobile telecommunications standard using the *Short Message Service or SMS circuit-switched data call*." Ex. 1101, 9:23–29 (emphasis added). Therefore, based on the disclosure of the '717 patent, we are not persuaded that an SMS data message, as recited in claim 29, cannot be including in a circuit-switched call.

On the current record, we are persuaded by Petitioner's contention that Van Bergen teaches incoming SMS data messages, including for programming numbers to be dialed in case of an alarm. *See* Ex. 1113, 2:25–26, 2:51–3:2, 7:38–39, 11:12–14.

b. "Process data"

Claim 29 also recites (emphasis added): "wherein the programmable communicator device is configured to process data received through the programmable interface from the at least one monitored technical device in response to programming instructions received in *at least one incoming short message service (SMS) data message or packet switched data message*." The emphasized portion recites, in the alternative, using an SMS data message *or* a wireless packet switched data message (as recited in claim 1).

Because Petitioner relies on its argument, set forth with respect to the corresponding limitation of claim 1, that the combination of Van Bergen and Bettstetter teaches processing data in response to instructions received in wireless packet switched data messages (Pet. 45), we need not address the SMS alternative recited in this limitation.

c. Claim 29 Conclusion

Upon review, we determine that the record before us demonstrates a reasonable likelihood that Petitioner would prevail on its assertion that claim 29 would have been obvious in view of Van Bergen and Bettstetter. Petitioner's explanation of how each claim limitation is taught by the combination of prior art references is supported by the current record and persuasive at this stage. *See* Pet. 17–28, 42–45.

3. Dependent Claims 2, 3, 5–18, 22, and 23

Upon review, we determine that the record before us demonstrates a reasonable likelihood that Petitioner would prevail on its assertion that claims 2, 3, 5–18, 22, and 23 would have been obvious in view of Van Bergen and Bettstetter. Petitioner's contention that each claim limitation is

taught by the combination of prior art references is supported by the current record and persuasive at this stage. *See* Pet. 28–42.

Below we address arguments raised by Patent Owner with respect to particular dependent claims.

a. Claims 5 and 12

Claim 5 recites (emphasis added): "A programmable communicator device according to claim 1 further configured to request that an at least one monitored technical device send data through the programmable interface *for processing* by the programmable communicator device in response to programming instructions received in an incoming wireless packet switched data message." Claim 12 recites similar subject matter except it replaces the words "for processing" (emphasized above in claim 5) with "for receipt."

Petitioner argues Van Bergen's disclosure of remotely activating the mode 1 alarm procedure teaches this limitation because, in mode 1, a monitored technical device, such as a vehicle security system, sends data to the programmable communicator device for processing. Pet. 29 (citing Ex. 1113, Abstract, 2:25–26, 6:39–42). Patent Owner argues that remote activation of the system does not teach requesting a monitored technical device to send data. Prelim. Resp. 42–43. We are persuaded by Patent Owner's argument. Although Petitioner has shown that, in mode 1, data is sent from a monitored technical device to the programmable communicator device, claims 5 and 12 require that the programmable communicator device be "further configured to request" such data. We are not persuaded Petitioner has shown that activated mode 1 teaches such a request, rather than the capability to receive data when it is sent.

In the alternative, Petitioner argues Van Bergen discloses a mode 2 procedure in which the CELL-EYE system can be remotely interrogated for location data. Pet. 29 (citing Ex. 1113, 4:43–47; Ex. 1105 ¶ 129). Petitioner contends

> [i]t would have been obvious to a POSITA to configure the mode 1 alarm procedure to interrogate the sensors 11, as in the mode 2 location procedure, so that a user could poll sensors 11 whenever the user wanted information on the status of the vehicle or property, for example, to check if he or she left the lights on in the vehicle.

Pet. 29–30 (citing Ex. 1113, 6:25; Ex. 1105 ¶ 129). Patent Owner argues Petitioner's proposed modification "is facially illogical" because in mode 2 operation, the controller does not request data from a monitored technical device but from another component of the CELL-EYE system, and that data is not received through the alarm sensor interface, which Petitioner contends is the programmable interface. Prelim. Resp. 43. However, under Petitioner's proposed modification, such information would be requested from a monitored technical device (sensors 11) and would be received through the programmable interface (alarm sensor interface). *See* Pet. 29–30.

On the current record, we are persuaded by Petitioner's alternative argument, supported by evidence in the record, that it would have been obvious to modify the system of Van Bergen so that a user could remotely request data from the sensors. *See id.*; Ex. 1105 ¶ 129.

b. Claim 8

Claim 8 recites: "A programmable communicator device according to claim 6 further configured to determine whether a data request initiated by the monitoring device includes a required access code in response to

programming instructions received in an incoming wireless packet switched data message." Petitioner argues Van Bergen discloses a request for location data through mode 2 operation that requires the remote user to enter a "code." Pet. 31–32 (citing Ex. 1113, 4:43–47, 8:49–50).

Patent Owner argues that activating mode 2 in Van Bergen is not a data request but "merely a prompt for causing the CELL-EYE system to enter into a particular mode of operation." Prelim. Resp. 44. On the current record, we are not persuaded by Patent Owner's argument; rather, we are persuaded a request to activate mode 2 is a request for data, specifically location data. Van Bergen discloses that activating mode 2 requires the user to enter a code, after which location data is returned:

> e) the operator using the RMU [(Remote Message Unit)] enters a code to activate mode 2 operation of the CELL-EYE system,
>
> f) the controller of the CELL-EYE system interrogates the ALU via the modem to determine the location of the nearest repeater as indicated by the GSM mobile phone network,
>
> g) the controller of the CELL-EYE system converts the returned location to the AT codes required for initiating a SMS message to the RMU via the modem and ALU [(Alarm Linked Unit)]
>
> h) steps f) and g) are repeated at preprogrammed intervals until the call is terminated by the RMU.

Ex. 1113, 4:43–48.

Therefore, on the current record, we are persuaded by Petitioner's argument that claim 8 would have been obvious over Van Bergen and Bettstetter.

c. Claim 10

Claim 10 recites:

> A programmable communicator device according to claim 1 further configured to determine whether the processed received

> data indicates a change in status of the at least one monitored technical device that crosses a threshold parameter, or that otherwise indicates an alarm condition in response to programming instructions received in an incoming wireless packet switched data message.

On the current record, we are persuaded by Petitioner's contention that the combination of Van Bergen and Bettstetter teaches the limitations of claim 10. Pet. 33–34 (citing Ex. 1113, Abstract, 2:1–3, 2:25–26, 2:51–3:3, 6:29–31, 8:49–50, 11:9–11, 11:20–21). In particular, Van Bergen teaches "a controller with signalling means for generating an outgoing call . . . in response to a number of alarm conditions which correspond to irregular or willful disturbance of the vehicle or property." Ex. 1113, 2:1–3. Van Bergen teaches that "alarm parameters correspond[] to specific alarm conditions" and that alarm parameters can be remotely programmed. *Id.* at 2:51–3:3, 11:21.

Patent Owner argues Van Bergen teaches that the sensors determine the existence of an alarm condition and then "send an 'alarm indicating output signal' to the CELL-EYE system to inform it as to the alarm condition," such that "the CELL-EYE system has no need or ability to process and analyze asset data in order to make its own determinations about whether alarm conditions exist." Prelim. Resp. 45–46 (citing Ex. 1113, Abstract, 1:9–13, 5:7–9, 5:41–6:6, 6:20–23, 6:35–36; 10:4–5; 10:14–15, 11:9–11).

On the current record, we do not find this argument persuasive because we are persuaded that Petitioner has demonstrated sufficiently at this stage that Van Bergen teaches that the CELL-EYE system makes some determination in order to send a message regarding the alarm signal received from the monitored device. *See* Ex. 1113, 1:49–2:5.

d. Claim 13

Claim 13 recites:

> A programmable communicator device according to claim 1 further configured to transmit the received data to an at least one monitoring device either periodically or in response to a data request initiated by the monitoring device in response to programming instructions received in an incoming wireless packet switched data message.

Petitioner argues Van Bergen's disclosure that "[t]he electromechanical system will repeatedly dial the said SMS message to the owner at preset intervals ranging from 5 minutes to 30 minutes" teaches periodically transmitting data indicating an alarm. Pet. 36 (quoting Ex. 1113, 8:28–29). Petitioner also cites Van Bergen's disclosure of a "timing control means for determining . . . the duration between repeated calls to stored numbers." Ex. 1113, 11:2–5.

Patent Owner argues Van Bergen's disclosure of repeated calls refers to making multiple efforts to send a single transmission in cases where the system was initially unable to reach the intended recipient, not configuring the system to transmit data periodically. Prelim. Resp. 47. On the current record, we do not find Patent Owner's argument persuasive. Rather, we are persuaded by Petitioner's contention that Van Bergen's disclosure of making repeated calls at certain intervals in response to an alarm teaches periodically transmitting received data.

e. Claim 15

Claim 15 recites:

> A programmable communicator device according to claim 1 configured to process an at least one data monitoring or data collection request contained in an at least one transmission received from an at least one monitoring device in response to

> programming instructions received in an incoming wireless packet switched data message.

Petitioner argues Van Bergen discloses a request for location data through mode 2 operation, which is activated using a code received in an incoming wireless message. Pet. 37–38 (citing Ex. 1113, Abstract, 2:25–26, 4:43–47, 8:49–50, 10:12–13).

Patent Owner argues that activating mode 2 in Van Bergen is not a data request "but rather a prompt for causing the CELL-EYE system to enter into a particular mode of operation." Prelim. Resp. 48. On the current record, we are not persuaded by Patent Owner's argument; rather, we are persuaded a request to activate mode 2 is a request for data, specifically location data, as explained above with respect to claim 8. *See* Ex. 1113, 4:43–48.

Therefore, on the current record, we are persuaded by Petitioner's argument that claim 15 would have been obvious over Van Bergen and Bettstetter.

f. Claims 16 and 17

Claim 16 recites:

> A programmable communicator device according to claim 1 further comprising a location processing module configured to determine an at least one location of the programmable communicator device, and wherein the programmable communicator device is configured to respond to an at least one transmission initiated by an at least one monitoring device requesting that said location data be sent to the monitoring device in response to programming instructions received in an incoming wireless packet switched data message.

Claim 17 depends from claim 16 and recites that "the location processing module comprises a Global Positioning System (GPS) module."

Petitioner argues Van Bergen discloses a location tracking module that responds to a request for location data through mode 2 operation, which is activated using a code received in an incoming wireless message. Pet. 38–39 (citing Ex. 1113, 2:37–38, 4:35–36, 4:34–47, 8:49–50, 10:12–13). With respect to claim 17, Petitioner argues Van Bergen discloses using GPS. *Id.* at 39 (citing Ex. 1:29–31).

We agree with Petitioner that Van Bergen discloses GPS, but claim 17 requires that the "the location processing module [of claim 16] comprises a Global Positioning System (GPS) module." Petitioner has not shown Van Bergen teaches the GPS module as part of the mode 2 location operation, which Petitioner relies on for the location module of claim 16. However, Petitioner argues, in the alternative, that it would have been obvious to use the GPS disclosed in Van Bergen for location tracking in the CELL-EYE system. Petitioner argues:

> [i]t would have been obvious to a [person of ordinary skill in the art] to use the pre-existing GPS technology in the Cell-Eye's vehicle location tracking system for applications in which accuracy was more important than cost because GPS, though it was more expensive at the time, generally provided more accurate location information than relying on the nearest GSM repeater stations.

Id. at 40 (citing Ex. 1105 ¶ 152).

Patent Owner argues "Van Bergen expressly teaches away from using" GPS because GPS was expensive and "would require the deployment of sophisticated equipment and service providers." Prelim. Resp. 49–50. Rather, Patent Owner argues Van Bergen advocates the use of its cheaper location tracking feature, which does not give the location of the device but the location of the nearest GSM repeater station. *Id.* at 50.

We are not persuaded that the disclosure of Van Bergen teaches away from the use of GPS. Although Van Bergen discloses some drawbacks to GPS, such as the expense, it also characterizes systems using GPS as "[s]ophisticated." Ex. 1113, 1:29–37. Petitioner argues that GPS would be preferred where accuracy of location information was more important than cost. Pet. 40 (citing Ex. 1105 ¶ 152). Thus, we are not persuaded Van Bergen's disclosure of an alternative location tracking procedure to GPS teaches away from the use of GPS, such as in applications where accuracy is important. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) ("The prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed . . . "); *see also Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006) ("[O]bviousness must be determined in light of all the facts, and there is no rule that a single reference that teaches away will mandate a finding of nonobviousness. Likewise, a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine.").

On the current record, we are persuaded by Petitioner's argument claims 16 and 17 would have been obvious over Van Bergen and Bettstetter. *See* Pet. 38–40.

4. Dependent Claim 30

Claim 30 recites: "A programmable communicator device according to claim 29 wherein the processing module processes received data to determine whether it indicates a change in status of the at least one monitored technical device that crosses a threshold parameter, or that

otherwise indicates an alarm condition." Petitioner's entire contention with respect to claim 30 is: "See claims 2, 10 and 29 above." Pet. 46.

With respect to claim 2, Petitioner contends the "controller and memory unit" in Van Bergen disclose the "processing module" that processes data, but for claim 10, Petitioner contends "[t]he data received over [the] alarm sensor interface is 'processed' by alarm sensor interface 13" to determine alarm conditions. *Id.* at 28, 33. As explained above with respect to claim 28, Petitioner's reference to claims 2 and 10 does not explain which structure in Van Bergen Petitioner contends is the "processing module" that performs the particular data processing required in claim 30. *See* 37 C.F.R. § 42.104(b).

Thus, we are not persuaded Petitioner has made a sufficient showing that claim 30 would have been obvious over Van Bergen and Bettstetter.

5. Conclusion

We determine that the record before us demonstrates a reasonable likelihood that Petitioner would prevail on its assertion that claims 1–3, 5–18, 22, 23, and 29 would have been obvious in view of Van Bergen and Bettstetter. However, we are not persuaded that the record before us demonstrates a reasonable likelihood that Petitioner would prevail on its assertion that claim 30 would have been obvious over Van Bergen and Bettstetter.

G. Unpatentability Challenge based on the Combination of Van Bergen, Bettstetter, and Alleged Applicant Admitted Prior Art under § 103 (Claims 29 and 30)

Petitioner offers an alternative challenge to claims 29 and 30 based on alleged applicant admitted prior art (AAPA) in the event "the Board

determines that the Cell-Eye was not programmable by SMS." Pet. 49; *see also* Pet. 45 ("In the alternative, *if the Board interprets the Cell-Eye to be programmable by only DATA, and not by SMS*, the '717 Patent admitted that programming by SMS would have been obvious . . . ." (emphasis added)). As explained above with respect to claim 29, we are persuaded on this record that Van Bergen teaches programming numbers to be dialed by incoming SMS data messages. Therefore, we do not institute as to Petitioner's "alternative" challenge to claims 29 and 30 based on the combination of Van Bergen, Bettstetter, and alleged applicant admitted prior art.

H. Unpatentability Challenge based on the Combination of Van Bergen, Bettstetter, and Sonera under § 103 (Claim 4)

Claim 4 recites: "A programmable communicator device according to claim 1 wherein the programmable communicator device is configured to process wireless transmissions compliant with Bluetooth wireless air interface standards." Petitioner contends Bluetooth was a "well-known communication standard for short-range wireless communication," as evidenced by the disclosure of Sonera. Pet. 50 (citing Ex. 1125, 2:19–28; Ex. 1105 ¶ 187; Ex. 1126, 3(right):1–31). Petitioner contends it would have been obvious to configure Van Bergen's system to process Bluetooth communications. *Id.* at 50–51. For example, Petitioner argues "connecting the Cell-Eye's 'micro switch' for detecting the 'opening of a door or window,' Ex. 1113, 5:44-45, using Bluetooth would eliminate the need to run wires through a house to monitor its doors, thereby simplifying and reducing the cost of its installation." Pet. 51 (citing Ex. 1105 ¶ 188).

Petitioner argues implementing Bluetooth would have been a matter of routine engineering to a person of ordinary skill in the art. *Id.*

Patent Owner argues that Petitioner has not provided sufficient articulated reasoning to modify Van Bergen to add Bluetooth capability in view of Sonera. Prelim. Resp. 56–57. On the current record, we are not persuaded by Patent Owner's argument. Rather, we determine that Petitioner has provided sufficient articulated reasoning with rational underpinning, supported by evidence in the record, for the combination of Van Bergen and Bettstetter with Sonera's teachings of Bluetooth capability. *See* Pet. 50–51.

I. Unpatentability Challenge based on the Combination of Van Bergen, Bettstetter, and Kuusela under § 103 (Claims 19 and 20)

Claim 19 depends from claim 1 and recites that "the monitored technical device is a health monitoring system." Claim 20 recites:

> A programmable communicator device according to claim 19 wherein the programmable communicator device is configured to receive data from the health monitoring system through the programmable interface representing at least one of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions in response to programming instructions received in an incoming wireless packet switched data message.

Petitioner argues Kuusela teaches health monitoring sensors that measure, among other things, body temperature. Pet. 54–55 (citing Ex. 1128, 1:19–28, 9:27–31). Petitioner contends

> it would also have been obvious to a [person of ordinary skill in the art] to implement the Cell-Eye system in the known health monitoring application of Kuusela to increase the flexibility of

> health monitoring units by allowing remote programmability of the units, including programming a telephone number to which the remote unit sends alarms. Ex. 1113, 2:51–3:4. For example, it would have been desirable to update the outgoing number for medical alarms to that of a pager or mobile phone of a doctor or nurse on-call at the time to direct medical information to the appropriate medical professional.

Id. at 54 (citing Ex. 1105 ¶ 194).

Patent Owner argues that Petitioner has not provided sufficient articulated reasoning to combine Van Bergen and Bettstetter with the teachings of Kuusela relating to health monitoring systems. Prelim. Resp. 58. On the current record, we are not persuaded by Patent Owner's argument. Rather, we determine that Petitioner has provided sufficient articulated reasoning with rational underpinning, supported by evidence in the record, for the combination of Van Bergen and Bettstetter with Kuusela's teachings of health monitoring. *See* Pet. 53–55.

J. Unpatentability Challenge based on the Combination of Van Bergen, Bettstetter, and Eldredge under § 103 (Claim 21)

Claim 21 depends from claim 1 and recites that "the monitored technical device is a vending machine." Petitioner argues "[i]t would have been obvious to a [person of ordinary skill in the art based on Eldredge] to use the Cell-Eye system to monitor intrusion alarms in vending machines because monitoring an intrusion alarm in a vending machine is no different than monitoring an intrusion alarm in other types of property" and adapting the system of Van Bergen to monitor vending machines would have been a matter of routine engineering. Pet. 55–56 (citing Ex. 1113, Abstract, 5:41; Ex. 1129, 12:18; Ex. 1105 ¶ 199).

Patent Owner argues that Petitioner has not provided sufficient articulated reasoning to combine Van Bergen and Bettstetter with the teachings of Eldredge relating to monitoring vending machines and that there was no need to combine the references because Eldredge already discloses remotely monitoring vending machines. Prelim. Resp. 59–60. On the current record, we are not persuaded by Patent Owner's argument. Rather, we determine that Petitioner has provided sufficient articulated reasoning with rational underpinning, supported by evidence in the record, for the combination of Van Bergen and Bettstetter with Eldredge's teachings of monitoring vending machines. *See* Pet. 55–56; *see also KSR*, 550 U.S. at 416.

K. Alternative Unpatentability Challenges based on Falcom (Claims 1–30)

Petitioner proposes alternative unpatentability challenges based additionally on certain alleged teachings of Falcom in the event we construe the phrase "numbers to which the programmable communicator device is configured to and permitted to send outgoing wireless transmissions," which appears in each independent claim, to mean an "exclusive" set of numbers such that transmissions to all other numbers are not permitted and are blocked. Pet. 56–58; *see also* Pet. 5 ("Petitioner requests that *if the Board accepts a narrower construction of claim element 1[e]* as discussed in section V.B. below, the Board institute IPR of claims 1-30 of the '717 Patent and find the claims unpatentable based on Grounds 8-14 . . . ." (emphasis added)).

Because we do not adopt the proposed construction on which these alternative challenges are based, we do not institute trial as to these alternative challenges based on Falcom.

III. CONCLUSION

Based on the information presented, we conclude that Petitioner has demonstrated a reasonable likelihood of prevailing in challenging claims 1–24 and 29 of the '717 patent. The Board has not made a final determination as to the patentability of any challenged claim.

IV. ORDER

Accordingly, it is:

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted as to claims 1–24 and 29 of the '717 patent on the following grounds:

A. Claim 24 of the '717 patent as unpatentable under 35 U.S.C. § 102(b) over Van Bergen;

B. Claims 1–3, 5–18, 22, 23, and 29 of the '717 patent as unpatentable under 35 U.S.C. § 103(a) over the combination of Van Bergen and Bettstetter; and

C. Claim 4 of the '717 patent as unpatentable under 35 U.S.C. § 103(a) over the combination of Van Bergen, Bettstetter, and Sonera;

D. Claims 19 and 20 of the '717 patent as unpatentable under 35 U.S.C. § 103(a) over the combination of Van Bergen, Bettstetter, and Kuusela; and

E. Claim 21 of the '717 patent as unpatentable under 35 U.S.C. § 103(a) over the combination of Van Bergen, Bettstetter, and Eldredge;

FURTHER ORDERED that no other grounds of unpatentability are authorized for this *inter partes* review as to the claims of the '717 patent; and

FURTHERED ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial. The trial will commence on the entry date of this decision.

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