

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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RESIDEO TECHNOLOGIES, INC.  
Petitioner,

v.

UBIQUITOUS CONNECTIVITY, LP  
Patent Owner

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Case IPR2019-01335  
Patent 8,064,935

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**PATENT OWNER'S PRELIMINARY RESPONSE**

**TABLE OF CONTENTS**

I.	INTRODUCTION .....	1
II.	THE '935 PATENT .....	3
A.	Overview of the '935 Patent.....	3
B.	The Level of Ordinary Skill in the Art.....	6
C.	Claim Construction .....	7
1.	“environmental information” (independent claims 1, 11, 18, and 21).....	7
III.	THE BOARD SHOULD USE ITS DISCRETION UNDER 35 U.S.C. § 325(D) TO DENY THE PETITION BECAUSE THE OFFICE CONSIDERED SUBSTANTIALLY THE SAME PRIOR ART AND ARGUMENTS DURING ORIGINAL PROSECUTION.....	8
A.	The similarities and material differences between the asserted art and the prior art involved during examination.....	9
B.	The cumulative nature of the asserted art and the prior art evaluated during examination; the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the art; and the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection.....	13
C.	Whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments .....	14
IV.	PETITIONER FAILS TO ESTABLISH A REASONABLE LIKELIHOOD OF PREVAILING ON ANY PROPOSED GROUND .....	15
A.	Grounds 1A-2D: Petitioner Does Not Apply its Proposed Claim Constructions.....	15

B.	Grounds 1A-2D: Petitioner Presents Incomplete and Deficient Obviousness Challenges.....	21
1.	Petitioner Does Not Identify Differences Between the Cited References and the Challenged Claims.....	21
2.	Petitioner Presents Conclusory Obviousness Rationale .....	29
C.	Ground 1A: Petitioner Does Not Show That Oinonen and Whitley Include all Challenged Claim Elements .....	38
1.	Independent Claim 1 .....	38
2.	Independent Claims 11, 18 and 21.....	45
3.	Independent Claim 19 .....	46
4.	Dependent Claims 2, 3, 7, 12-15, and 17.....	47
D.	Grounds 1B-1D: Petitioner Does Not Show That Oinonen and Whitley Combined Respectively With Sears, Antila, and Ehlers Include all Challenged Claim Elements.....	48
E.	Ground 1E: Petitioner Does Not Show That Oinonen and Whitley Combined With Menard Include all Challenged Claim Elements .....	48
1.	Menard Does Not Remedy the Deficiencies of Oinonen and Whitley .....	48
2.	Oinonen, Whitley, and Menard Do Not Disclose or Suggest Element [20D] “a transmitter ... sending a second wireless message to the remote unit [that] includes information indicating that the command has been executed” and [22F] “a wireless module configured to ... send a status message indicating execution of said control information to the remote device” .....	49
F.	Ground 2A: Petitioner Does Not Show That Bielski and Wu and Combined Include all Challenged Claim Elements .....	52
1.	Independent Claim 1 .....	53

2.	Independent Claims 11, 18, 19, and 21.....	60
3.	Dependent Claims 2-4, 7-9, 12-15, and 17 .....	60
G.	Grounds 2B and 2C: Petitioner Does Not Show That Bielski and Wu Combined Respectively With Sears and Ehlers Include all Challenged Claim Elements .....	61
H.	Ground 2D: Petitioner Does Not Show That Bielski and Wu Combined With Menard Include all Challenged Claim Elements .....	61
V.	CONCLUSION.....	62

**TABLE OF AUTHORITIES**

<b>Cases</b>	<b>Page(s)</b>
<i>Apple Inc. v ContentGuard Holdings, Inc.</i> , IPR2015-00449, Paper 10 (July 15, 2015) .....	24
<i>Apple Inc. v. Immersion Corporation</i> , IPR2016-01777, Paper 7 (Mar. 23, 2017) .....	26
<i>Becton, Dickinson and Company v. B. Braun Melsungen AG</i> , IPR2017-01586, Paper 8 (Dec. 15, 2017).....	8
<i>Becton, Dickinson and Company v. Baxter International, Inc.</i> , IPR2018-01742, Paper 8 (Mar. 13, 2019) .....	26
<i>Chevron Oronite Co. LLC v. Infineum USA L.P.</i> , IPR2018-00923, Paper 9 (Nov. 7, 2018) .....	2
<i>Deeper, UAB v. Vexilar, Inc.</i> , IPR2018-01310, Paper 7 (Jan. 24, 2019).....	2
<i>Front Row Technologies, LLC v. MLB Advanced Media, L.P.</i> , IPR2015-01932, Paper 7 (Mar. 25, 2016) .....	17
<i>Graham v. John Deere Co.</i> , 383 U.S. 1 (1966).....	1, 21, 22, 24, 26, 28
<i>HTC Corporation v. Cellular Communications Equipment LLC</i> , IPR2016-01504, Paper 7 (Feb. 1, 2017) .....	26
<i>KSR International Company v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	29, 32
<i>LG Electronics, Inc. v. Cellular Communications Equipment LLC</i> , IPR2016-00197, Paper 7 (Apr. 29, 2016).....	30, 31, 35
<i>Liberty Mutual Insurance Company v. Progressive Casualty Insurance Company</i> , CBM2012-00003, Paper 7 (Oct. 25, 2012) .....	24, 26
<i>Phillips v. AWH Corporation</i> , 415 F.3d 1303 (Fed. Cir. 2005) .....	7

<i>Sanofi-Aventis U.S. LLC v. AstraZeneca Pharmaceuticals LP</i> , IPR2016-00348, Paper 10 (June 28, 2016).....	24
--	----

<i>SAS Institute Inc. v. Iancu</i> , 138 S. Ct. 1348 (2018).....	2
---	---

<i>ZTE Corporation v. Maxell, Ltd.</i> , IPR2018-00238, Paper 8 (June 1, 2018).....	17, 20
--	--------

## **Statutes**

35 U.S.C. § 103(a) .....	2, 21, 28, 29
35 U.S.C. § 312 .....	15
35 U.S.C. § 312(a)(3).....	17, 27
35 U.S.C. § 313 .....	1
35 U.S.C. § 314(a) .....	2, 15, 29
35 U.S.C. § 325(d) .....	8, 15

## **Other Authorities**

37 C.F.R. § 42.22(a).....	17
37 C.F.R. § 42.100(b) .....	7
37 C.F.R. § 42.104(b)(2).....	24, 27
37 C.F.R. § 42.104(b)(3).....	1, 15, 20, 27
37 C.F.R. § 42.104(b)(4).....	1, 15, 20, 24, 27
37 C.F.R. § 42.104(b)(5).....	24
37 C.F.R. § 42.107 .....	1

**LIST OF EXHIBITS**

<b>Exhibit</b>	<b>Description</b>
2001	U.S. Patent 7,031,663 to Heinonen (“Heinonen”)
2002	U.S. Patent Application Publication No. 2004/0092282 to Kim (“Kim”)

## I. INTRODUCTION

Patent Owner submits this Patent Owner's Preliminary Response under 35 U.S.C. §313 and 37 C.F.R. §42.107, responding to the Petition for *Inter Partes* Review ("IPR") filed July 15, 2019 ("Petition" or "Pet.") challenging U.S. Patent 8,064,935 ("the '935 Patent").

The Petition does not show a reasonable likelihood to prevail for several reasons. First, Petitioner proposes claim constructions for several terms, Pet., 7-10, but Petitioner never applies those constructions to the asserted prior art in any of Grounds 1A-2D. Thus, the Petition fails to specify "[h]ow the challenged claim is to be construed," 37 C.F.R. §42.104(b)(3), and "[h]ow the construed claim is unpatentable," §42.104(b)(4), as required by the rules for the content of petitions.

Second, the Petition presents only obviousness challenges in Grounds 1A-2D, and each challenge is incomplete and legally deficient. Petitioner does not identify differences between the disclosure of the asserted references and the claimed subject matter. Instead, Petitioner simultaneously asserts that each of the cited references discloses each of the challenged claim elements. Petitioner does not identify any claim feature missing from any of the references, and thus does not show where its reliance on one reference ends and another begins. As a result, Petitioner does not resolve the Supreme Court's factors in *Graham v. John Deere Co.*, 383 U.S. 1 (1966) to show how "the differences between the [claimed] subject matter ... and the prior



art are such that the subject matter as a whole would have been obvious ....” 35 U.S.C. §103(a) (emphasis added).

Further, because Petitioner alleges that each of the asserted references individually discloses each of the challenged claim elements, Petitioner’s combinations of the asserted references are superfluous and provide no reason to combine the references in the way recited in the claims. That is, if one reference already discloses a certain element as Petitioner alleges, a person of ordinary skill in the art would not have combined that reference with a second reference to acquire that very same element. And, finally, even if the asserted references were combined, the combinations still would not disclose or suggest each of the challenged claim elements.

Given the Petition’s many flaws and the statutory goal of efficient use of the Board’s resources under § 316(b) and the requirement under *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348 (2018) to institute all or none of a petition’s challenges, the Board may exercise its discretion under 35 U.S.C. §314(a) to deny the Petition and avoid conducting a proceeding on a doomed petition. *See Chevron Oronite Co. LLC v. Infineum USA L.P.*, IPR2018-00923, Paper 9 (Nov. 7, 2018) (informative); *Deeper, UAB v. Vexilar, Inc.*, IPR2018-01310, Paper 7 (Jan. 24, 2019) (informative).

## II. THE '935 PATENT

### A. Overview of the '935 Patent

The '935 Patent “relates to a remote monitoring and control system for an environment,” such as home automation system, that allows users to monitor and control characteristics of the environment from a remote location. Ex. 1001, 1:18-19. Before the '935 Patent, these systems had several deficiencies, including their lack of “bidirectional communications” between the user and the environment. *Id.*, 2:39-63. For example, upon receiving an alert from a service provider about an alarm in the home environment, the user had to separately call a phone number for the system and use “telephone interfaces, including voice, DTMF, and Caller ID ... to exercise control of their facilities remotely.” *Id.*, 2:39-42. The user could not communicate with the system directly, by the same means through which the user received the alert. *Id.*, 2:39-48.

Seeking to address this and other deficiencies of home automation systems, the '932 Patent discloses a “system [having] on demand bidirectional

communication between a remote access unit and a multifunctional base control unit in a geographically remote location.” *Id.*, 1:18-22. As shown in FIG. 1, reproduced right, the system 10 has a remote unit 12 that interfaces with a base control unit 16 within a structure 18 to monitor and control associated environmental devices 21 in or around the structure. *Id.*, 3:51-67.

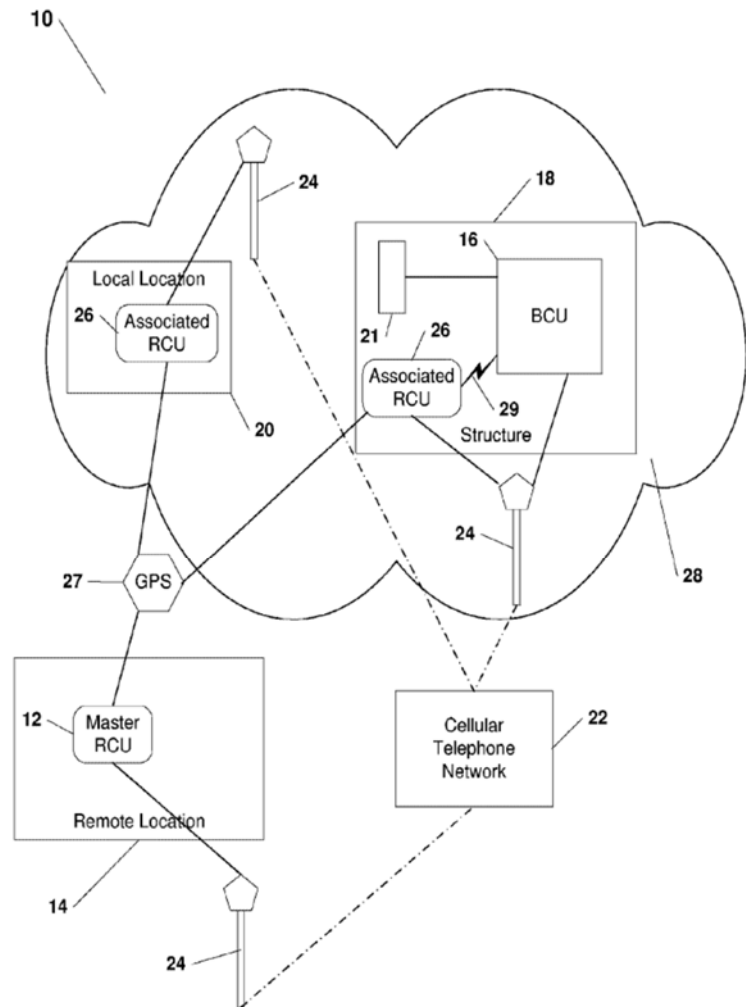


Fig. 1

The base unit 16 connects to the environmental devices 12 through one or more communication interfaces. *Id.* The environmental devices include devices like a burglar alarm, HVAC, freezer, water heater, refrigerator, thermostat, lighting, etc. *Id.*, 9:6-11, 11:50-52. The base unit monitors the environmental devices through “sensors provid[ing] continuous measurement and status of target environmental characteristics,” such as “utilities status, moisture and humidity detection, door and

window condition, and the like.” *Id.*, 11:47-50. The base unit and the remote unit have “direct two-way communication,” (*id.*, 3:13-25), “through a short message and/or the data bearer cellular telephone network 22,” (*id.*, 3:51-57). In one embodiment, the short message format could be simple message service (SMS). *See, e.g., id.*, 7:9-11.

The base unit sends messages to the remote unit that include information about the monitored environmental characteristics. For example, “the base station unit 16 sends ... a message to the remote control unit 12 to notify it that the temperature in zone 0 is currently 72 degrees.” *Id.*, 7:54-58. In another example, “the base control unit notifies the remote control unit of an activation of an alarm system ... [and], the remote control unit receives textual messages and graphical indicators to alert the user.” *Id.*, 7:28-32.

Likewise, the remote unit may send to the base unit a message including a command for the environmental device. For example, “the operator may invoke ... a command from the remote control unit 14 to the base control unit 16 to activate a select device such as the HVAC unit, a water heater, a refrigeration appliance or other discrete device remotely.” *Id.*, 12:1-5.

Independent claim 1 is representative, although not all challenged claims require the claimed messages to be SMS messages:

1. A wireless system comprising:

an environmental device;

a base unit operatively interfaced with the environmental device and configured to control an operation of the environmental device;

a remote unit having wireless connectivity and being configured to send and receive short message service (SMS) messages; and

a wireless module operatively interfaced with the base unit and configured to provide wireless connectivity between the base unit and the remote unit,

wherein the base unit is configured to send a first SMS message, including current environmental information, to the remote unit through the wireless module,

wherein the remote unit is configured to send a second SMS message, including a command for the environmental device, to the base unit through the wireless module, and

wherein the base unit is configured to receive the second SMS message, including the command, and to send the command to the environmental device to control the operation of the environmental device.

**B. The Level of Ordinary Skill in the Art**

Patent Owner proposes that person of ordinary skill in the art at the time of the priority date of the '935 Patent would have had at least a bachelor's degree in electrical engineering or computer science, and at least two years of industry experience in the field of computers and communications. *See* Ex. 1014, 50. Higher

levels of education may substitute for less experience, and more experience may substitute for the specific level of education.

### **C. Claim Construction**

The claim construction standard defined in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) applies to this proceeding. 37 C.F.R. §42.100(b). Under this standard, words in a claim are given their plain meaning, which is the meaning understood by a person of ordinary skill in the art after reading the entire patent, including the claims, specification, and prosecution history. *Phillips*, 415 F.3d at 1312-13. Petitioner proposes a construction for one term below but reserves the right to present additional constructions should trial be instituted.

#### **1. “environmental information” (independent claims 1, 11, 18, and 21)**

If construed, the claimed “environmental information” refers to information reflecting a characteristic of an environment. The specification of the ’935 Patent supports this construction, explaining that the disclosure “relates to a remote monitoring and control system for an environment.” *Id.*, 1:18-19; *see also id.*, 11:29-32 (“The present invention thus provides an on-demand bidirectional communications interface for monitoring, controlling, and securing various environment functions and characteristics attendant the interior and exterior of a building.”). To monitor and control these environmental characteristics, “a number of various types of temperature, humidity, light-level and other sensors [can] be

monitored by the base control unit 16.” Ex. 1001, 11:29-31; *see also id.*, 11:40-45.

The sensors collect environmental information by “provid[ing] continuous measurement and status of target environmental characteristics. Examples of sensor applications include utilities status, moisture and humidity detection, door and window condition, and the like.” *Id.*, 11:47-50 (emphasis added). Accordingly, “environmental information” means information reflecting a characteristic of an environment.

**III. THE BOARD SHOULD USE ITS DISCRETION UNDER 35 U.S.C. § 325(D) TO DENY THE PETITION BECAUSE THE OFFICE CONSIDERED SUBSTANTIALLY THE SAME PRIOR ART AND ARGUMENTS DURING ORIGINAL PROSECUTION**

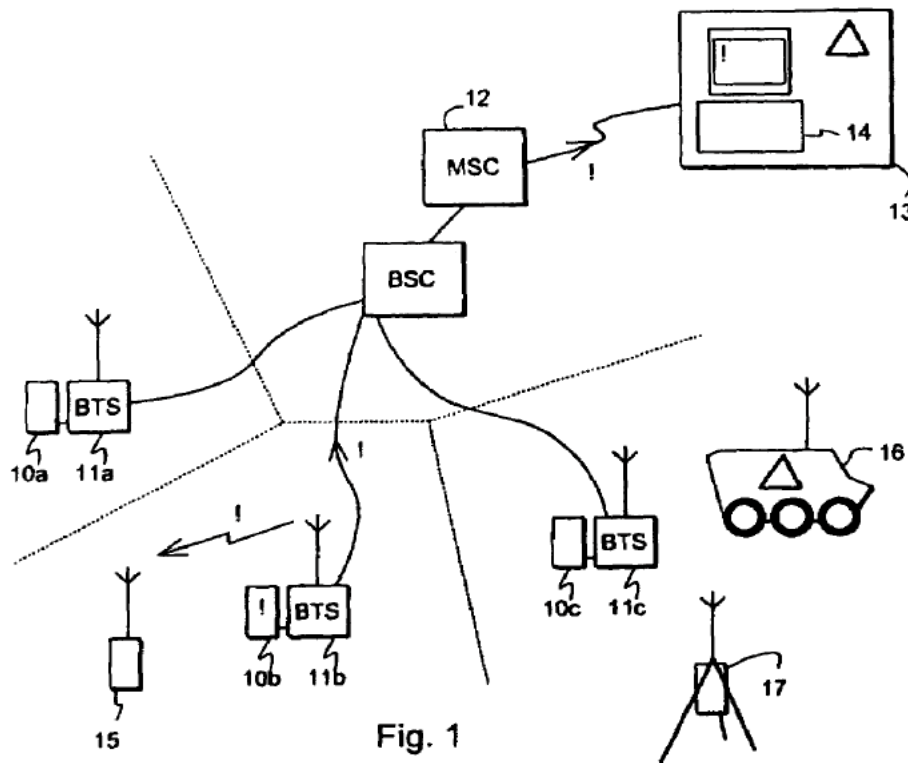
The Board may exercise its discretion under 35 U.S.C. § 325(d) to deny institution of a petition because “the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. §325(d). In *Becton, Dickinson and Company v. B. Braun Melsungen AG*, the Board identified several non-exclusive factors for determining whether exercise its § 325(d) discretion. IPR2017-01586, Paper 8 at 17-28 (Dec. 15, 2017) (precedential). Each of these factors, discussed below, supports denying the Petition because the Office has already and considered and rejected on the record prior art and arguments similar to those for Bielski and Wu (Grounds 2A-2D). Like prior art overcome during prosecution, Bielski and Wu lack two-way, direct messaging between a remote unit and a base unit to monitor and control environmental devices within an environment.

**A. The similarities and material differences between the asserted art and the prior art involved during examination.**

During prosecution of the '935 Patent application, the Examiner rejected the pending claims over U.S. Patent No. 7,031,663 to Heinonen. Ex. 1010, 162-171. The Examiner contended that “Heinonen teaches a base unit in said structure and operatively interfaced with said device to control the operation thereof” and teaches “a remote device adapted to send and receive short message service messages.” *Id.*, 163 (citing Ex. 2001, 6:67-7:9). The applicant responded that Heinonen is deficient because it “sends out messages but does not receive return messages, and there is no two way messaging.” *Id.*, 209. In a later interview, the Examiner agreed that Heinonen (and the other prior art at issue) did not disclose “sending a command from the remote unit to the base unit via an SMS message” and then allowed the application. *Id.*, 306, 318.

Heinonen discloses a system in which “[a]utomatic environmental measuring stations [10] are connected in a physical connection with base stations [11] of a cellular radio system.” Ex. 2001, Abstract. Measurement information collected by the measuring stations “may ... be transmitted over the base station of the cellular radio system to mobile stations (15) in the area of the base station in the form of individually tailored reports and alarms.” *Id.*





Ex. 2001, FIG. 1

For example, “the measuring station of the user’s home area sends through the radio communication part of the base station a personal message [regarding the report or alarm] to the user’s mobile station.” *Id.*, 3:55-58.

While Heinonen discloses messaging in the direction from the measuring station to the mobile station, Heinonen lacks two-way communication because the mobile station cannot likewise send a message including a command for the measuring station from the mobile station toward the measuring station. Heinonen teaches that “[t]he measuring stations may perform measurements ... [based] on [a] command,” (*id.*, 3:36-38), but the command does not come in a message from the

mobile station. Rather, Heinonen explains that the measuring devices are commanded “using commands from central equipment 14.” *Id.*, 6:16-18 (emphasis added); *see also id.*, 3:49-52 (“the measuring station delivers the measured data ... a response to a request (command) sent by the central equipment” (emphasis added)). As shown in FIG. 1 of Heinonen above, the central equipment 14 is part of “the network operator’s network management equipment,” separate from the mobile terminal. *Id.*, 11:41-44.

Like Heinonen, Petitioner’s references Bielski and Wu lack two-way messaging between a remote unit and a base unit. For example, as explained below, Bielski (Grounds 2A-2D) only discloses that “the actual status of the corresponding devices” can be sent “in the form of an SMS or by means of a voicemail.” Ex. 1018, ¶ [0069]. Bielski does not disclose that user’s mobile phone can, in the same manner, send a message with a device command to the alleged base unit. Instead, the user must separately call the phone number for the alleged base unit and use dial tones to communicate with it. *Id.*, ¶ [0064].

Indeed, Bielski lacks two-way communication in the same way that another reference applied by the Examiner in a rejection and overcome—U.S. Patent Application Publication No. 2004/0092282 to Kim—lacks two-way communication. Ex. 1010, 111. In response to this rejection, the applicant explained that Kim does not disclose two-way messaging between a remote unit and a base unit because, in

Kim, “[a] telephone network 32 is used between a telephone signal transmitting unit 24 and a telephone network accessing unit 12 to provide a dial-tone multi-frequency (DTMF) control of the electronic appliance.” Ex. 1010, 143; *see also* Ex. 2002, ¶¶ [0034]-[0035]. In a similar manner, Bielski lacks two-way communication because, although the user receives device status information by SMS, Bielski requires the user to separately call the phone number for the alleged base unit and presumably use dial tones to provide any commands to the system. *See* Ex. 1017, ¶ [0064].

Wu lacks two-way communication in a different way from Bielski and Kim. As discussed below, although Wu teaches that a mobile station can send an SMS request to a Home Network Service (HNS) gateway (the alleged base unit), the request only “allows users to pull information from the HNS gateway and post control data to HNS gateway (i.e., set the control data to HNS gateway).” Ex. 1018, 495 (emphases added). Thus, Wu’s request is a request for the gateway (the alleged base unit), not the home device (the alleged environmental device). In Wu, the gateway does not pass the request to a home device, and the mobile station cannot directly send a request to a home device. Thus, Wu’s messaging stops short of two-way communication.

Rather than using messages from the mobile station to configure the home devices, Wu teaches that users separately access an “HNS configuration tool,” which

is a GUI portal through which “home users can easily configure home devices even though they do not know much about home networks.” *Id.*, 499. Similarly, Heinonen’s devices cannot be commanded from a mobile terminal but instead must be commanded from separate central equipment. Ex. 2001, 3:49-52, 6:16-18.

Accordingly, Bielski and Wu, asserted in Grounds 2A-2D, are materially similar to Heinonen and Kim involved during original examination of the ’935 Patent because they also lack two-way communication.

**B. The cumulative nature of the asserted art and the prior art evaluated during examination; the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the art; and the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection.**

As demonstrated for the previous *Becton, Dickenson* factor, Bielski and Wu are cumulative of Heinonen and Kim, and the Examiner rejected the claims with Heinonen and Kim during prosecution. Like these references, Bielski and Wu lack two-way communication between a remote unit and a base unit to monitor and control an environmental device. Petitioner relies on Bielski and Wu in the same way the Examiner had relied on Heinonen and Kim before applicant refuted and overcame the rejections. For example, for element [1F] which recites “a second SMS message ... including a command for the environmental device,” Petitioner identifies Bielski’s feature that requires the user to separately dial the phone number

for the alleged base unit in order to communicate with the alleged base unit and control the devices. *See* Pet., 57-58 (citing Ex. 1017, ¶¶ [0063]-[0064]). But during prosecution, the applicant refuted that this same feature in Kim corresponded to the claimed second message. *See* Ex. 1010, 143, 306, 321. Moreover, like Heinonen's system in which central equipment—not the mobile terminal—commands the devices, Wu's configuration tool—not its mobile device—configures the devices on the home network through a separate portal. Ex. 1018, 495; Ex. 2001, 3:49-52, 6:16-18; Ex. 1010, 209, 306, 318. The user does not have full, two-way communication via the mobile terminal.

**C. Whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments**

Petitioner barely addresses the prosecution history of the '935 Patent. Petitioner briefly mentions that Patent Owner argued that “the cited art did not disclose two-way messaging” and contends that, “[a]s discussed throughout this petition, such bi-directional SMS-based systems were well-known.” Pet., 6-7. But Petitioner does not substantively address the applicant's bi-directional arguments during prosecution. Nor does Petitioner mention Heinonen or Kim, much less explain how the references in the Petition rectify Heinonen's and Kim's lack of two-way communication. Indeed, as explained above, they do not. Petitioner notes that Bielski and Wu were not considered during prosecution, (*id.*, 20), but this does not

matter when Bielski and Wu are cumulative of Heinonen and Kim, which were considered and discussed on the record and relied on in the same way as Bielski and Wu. In sum, Petitioner presents no additional evidence or facts warranting reconsideration of the patentability of the '935 Patent.

Accordingly, for the reasons above, the Board should exercise its discretion under 35 U.S.C. §325(d) to deny institution of the Petition.

#### **IV. PETITIONER FAILS TO ESTABLISH A REASONABLE LIKELIHOOD OF PREVAILING ON ANY PROPOSED GROUND**

##### **A. Grounds 1A-2D: Petitioner Does Not Apply its Proposed Claim Constructions**

Office rules require a petition to contain statements specifying “[h]ow the challenged claim is to be construed,” 37 C.F.R. §42.104(b)(3), and “[h]ow the construed claim is unpatentable,” §42.104(b)(4). Additionally, by federal statute, a petition must “identif[y], in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim,” 35 U.S.C. §312(c)(3), and may not be instituted unless “the information presented in the petition ... shows that there is a reasonable likelihood that the petitioner would prevail,” §314(a).

In Section VI, Petitioner proposes constructions for four claim terms:

Term	Proposed Construction
“environmental device”	“device that is capable of measuring and/or controlling its surroundings.” Pet., 8.
“base unit”	“base component that can send and receive data through interface(s) to the remote unit and environmental device.” Pet., 8.
“cellular remote” and “remote unit”	“[cellular remote / remote] component that can send and receive data.” Pet., 9.
“communications interface”	“an interface that enables the exchange.” Pet., 10.

Petitioner, however, never applies those constructions to the asserted references in its proposed grounds for invalidity. Indeed, the only time Petitioner uses the language of its proposed construction is when it proposes those constructions—Petitioner’s analysis never uses these phrases (or equivalent phrases) in its analysis. Instead, Petitioner’s claim construction analysis begins and ends with a conclusory statement that the cited references disclose the claim term “under either construction” without providing any explanation as to why. *See* Pet., 17-19, 31, 52-54, 73.

While, at times, Petitioner vaguely hints at how disclosures from the prior art references relate to Petitioner’s claim constructions, that is not enough. Petitioner must explain “in writing and with particularity ... the ground on which the challenge

to each claim is based,” 35 U.S.C. §312(a)(3), and provide “[a] full statement of the reasons for the relief requested,” 37 C.F.R. §42.22(a). Thus, the Board “will address only the basis, rationale, and reasoning put forth by the Petitioner in the petition, and resolve all vagueness and ambiguity in Petitioner’s arguments against the Petitioner.” *Front Row Techs., LLC v. MLB Advanced Media, L.P.*, IPR2015-01932, Paper 7 at 21 (Mar. 25, 2016) (citation and quotation omitted).

Petitioner emphasizes the importance of claim construction for four claim terms by proposing claim constructions for them, yet never uses those constructions in its analysis. Because Petitioner never applies its constructions, its proposed constructions are superfluous.

“Regardless of whether or not [its] construction is correct,” the Petitioner must “show that the prior art teaches or suggests [a limitation it construed] for any of the asserted grounds under Petitioner’s proposed construction for this limitation.” *ZTE Corp. v. Maxell, Ltd.*, IPR2018-00238, Paper 8 at 8 (June 1, 2018). Here, because Petitioner fails to do so, the Petition fails to: (1) specify how the construed challenged claims are unpatentable; (2) identify with particularity the grounds on which the challenges are based; and (3) demonstrate a reasonable likelihood that Petitioner will prevail.

For Ground 1A, in its analysis of element [1A] of independent claim 1, Petitioner contends that “Oinonen discloses a variety of ‘environmental devices,



under either construction.” Pet., 17. But the Petition stops short of explaining how any component of Oinonen satisfies any proposed construction of environmental device. *See id.* Petitioner also contends that “Whitley confirms that a POSITA would have known of other ‘environmental devices,’ such as a thermostat,” but again fails apply any proposed construction to Whitley. *Id.*, 18.

Petitioner’s analysis of elements [1B] and [1C] is similarly deficient. Petitioner asserts that Oinonen’s first telecommunications terminal and second communications terminal respectively disclose the claimed base unit and remote unit. *Id.*, 18-19. Petitioner also asserts that Whitley’s gateway and user device respectively disclose the claimed base unit and remote unit. *Id.*, 19. But as with the other claim elements, Petitioner baldly asserts that Oinonen’s components satisfy elements [1B] and [1C] “under either construction” of base unit without providing any analysis explaining why. *Id.*, 18-19.

Petitioner does not apply its proposed constructions for the remaining independent claims challenged in Ground 1A—claims 11 and 18-21. For elements [11A], [18A], [19A], [20A], [21Pre], [21A] reciting “environmental device,” Petitioner relies on its analysis for element [1A] which does not explain how Oinonen or Whitley discloses an environmental device under Petitioner’s construction. *See* Pet., 26, 32-33, 35, 46. Likewise, for elements [18Pre], [18B], [19B], [20B], [21Pre], and [21B] reciting “remote unit,” Petitioner relies on its

analysis for element [1C] that does not apply Petitioner's proposed construction of remote unit to Whitley or Oinonen, as explained above. *See id.*, 27, 32, 34, 35, 46. And for elements [11F], [18Pre], [19A], [20A], [21Pre] reciting "base unit," Petitioner also refers to its claim 1 analysis which does not explain how Whitley or Oinonen discloses a base unit under Petitioner's proposed construction. *See id.*, 28, 32-34, 46.

Independent claims 18 and 21 also recite "communication interface," for which Petitioner proposes a construction. *Id.*, 9. For element [18A], however, Petitioner asserts that "[t]he communication interface, under either construction, is discussed in 1B." *Id.*, 32. But claim 1 does not recite this term at all, and Petitioner's analysis for element [11B] does not mention the term much less apply Petitioner's proposed construction. *See id.*, 18-19. And for element [21A] also reciting "communication interface," Petitioner references its analysis for element [18A] which lacks any discussion of Petitioner's construction. *Id.*, 35.

Grounds 1B-1E address only claims depending from one of the independent claims addressed in Ground A. *See id.*, iv-v, 35-48. Thus, Grounds 1B-1E inherit Ground 1A's failure to apply Petitioner's proposed constructions.

Grounds 2A-2D also fail to apply Petitioner's proposed constructions, this time to Bielski and Wu. Specifically, Petitioner does not apply its construction for: (1) "environmental device" in its analyses for elements [11A], [18pre], [18A],

[19A], [20A], [21pre], [21A], (*see id.*, 67-68, 73, 75-77, 83); (2) “remote unit” in its analysis of elements [18Pre], [18B], [19B], [20B], [21Pre], and [21B], (*see id.*, 73, 74, 76-77, 83); (3) “base unit” in its analysis of elements [11F], [18Pre], [19A], [20A], [21Pre], (*see id.*, 70, 73, 75, 76, 83); and (4) “communication interface” in its analysis of elements [18A] and [21A], (*see id.*, 32, 35).

As Board panels have recognized, “37 C.F.R. §42.104(b)(3) and (4), which relate to the content of petitions ... require[] that the construction of a claim in a petition be consistent with the unpatentability contentions in a petition.” *ZTE Corp.*, IPR2018-00238, Paper 8 at 8. “Regardless of whether or not [its] construction is correct,” the Petitioner must “show that the prior art teaches or suggests [a limitation it construed] for any of the asserted grounds under Petitioner’s proposed construction for this limitation.” *Id.* Here, as explained above, Petitioner makes no attempt to show that the alleged prior art teaches or suggests the features of the challenged claims under any of Petitioner’s proposed constructions. Thus, the Petition does not specify how the construed claims are allegedly unpatentable under 37 C.F.R. §42.104(b)(4) and has no reasonable likelihood of success as to any challenged claim. Accordingly, institution should be denied.

**B. Grounds 1A-2D: Petitioner Presents Incomplete and Deficient Obviousness Challenges**

**1. Petitioner Does Not Identify Differences Between the Cited References and the Challenged Claims**

All Grounds 1A-2D in the Petition allege obviousness under 35 U.S.C. §103(a). *See* Pet., 3-4. An analysis under Section 103(a) must show that “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 ...” 35 U.S.C. §103(a). In *Graham v. John Deere Co.*, 383 U.S. 1 (1966), the Supreme Court set out a framework for applying the statutory language of § 103 including that “the scope and content of the prior art are to be determined” and “differences between the prior art and the claims at issue are to be ascertained.” *Id.* at 17–18.

In Grounds 1A-2D, however, the Petition does not identify differences between the asserted references and the claims at issue. Instead, Petitioner merely quotes each element in the challenged claim and, following each quoted element, asserts that each reference included in the Ground discloses it. Petitioner draws no line showing where its reliance on one reference ends and its reliance on another reference begins, creating a confusing and jumbled analysis that provides no clarity as to Petitioner’s contentions. Accordingly, Petitioner’s Grounds do not resolve the

*Graham* factors and thus fail to allege that the challenged claims would have been obvious. Patent Owner identifies several examples below.

Ground 1A challenges claims 1-3, 7, 11-15, 17-19, and 21 as unpatentable under 35 U.S.C. § 103 over Oinonen and Whitley. Pet., 3. But the Petition does not identify any differences between Oinonen or Whitley or explain how the claimed subject matter would have been obvious despite those differences. Instead, the Petition contends that each of Oinonen and Whitley discloses each of the elements of claims 1-3, 7, 11-15, 17-19, and 21. That is, the Petition presents a claim-chart-like analysis simultaneously contending that Oinonen and Whitley each discloses each challenged claim element, without laying out any specific combination or providing an explanation as to why a combination of Oinonen and Whitley—as opposed to one or the other—is needed to show that the challenged claims are obvious.

For example, for element [1Pre], Petitioner contends that Oinonen and Whitley each discloses a wireless system. Pet., 17. For element [1A], “an environmental device,” Petitioner contends that “Oinonen discloses a variety of ‘environmental devices’” while simultaneously contending that “[l]ikewise, Whitley confirms that a POSITA would have known of other ‘environmental devices,’ such as a thermostat.” *Id.*, 17-18. It is unclear from Petitioner’s analysis whether it relies

on Oinonen or Whitley for the different limitations of [1Pre] or why a combination of Oinonen and Whitley is needed for [1Pre].

Moving on to element [1B], Petitioner contends that “Oinonen discloses a base unit ... in the form of a first telecommunication terminal which connected to a peripheral device to be controlled or monitored.” *Id.*, 18. But for this same element, Petitioner also contends that Whitley’s gateway discloses the claimed base unit. *Id.* Petitioner contends that both Oinonen and Whitley disclose a base unit but fails to explain why both references are needed for element [1A]. *Id.*

Petitioner continues its claim chart for element [1C]’s “remote unit,” where Petitioner contends on the one hand that “Oinonen discloses a remote unit ... in the form of a ‘second telecommunication terminal’ that operates on the wireless GSM network” and on the other hand that “Whitley confirms that remote units allow users to receive monitoring information about activities at their facilities and allow users to control devices.” *Id.*, 19 (internal and citation quotation omitted). Again, Petitioner provides no explanation for why both Oinonen and Whitley are required for element [1C].

Petitioner continues its parallel analysis of Oinonen and Whitley for the remaining elements in claim 1, as well as for each element of each additional claim challenged in Ground 1A. *See id.*, 19-35. By simultaneously contending that Oinonen and Whitley individually disclose each element of each claim challenged

in Ground 1A, Petitioner fails to identify any differences between the claimed subject matter and the asserted prior art, as required to support a finding of obviousness.

Separately, Petitioner's practice runs afoul of the petition content rules in 37 C.F.R. §§42.104(b)(2), (4)-(5) because it "fails to explain any specific combination of teachings, which creates an ambiguity as to which reference(s) Petitioner proposes would have been relied upon by a person of ordinary skill in the art ... to achieve the subject matter of the challenged claims." *Sanofi-Aventis U.S. LLC v. AstraZeneca Pharm. LP*, IPR2016-00348, Paper 10 at 6 (June 28, 2016). Petitioner's practice of hides the ball, and "obscures any comparison of the individual prior art references to the claim limitations. It does not explain with any particularity which claim limitations are absent from [the first reference] or [the second reference]" and thus "fails to perform an adequate *Graham* analysis, as required for an obviousness determination." *Apple Inc. v ContentGuard Holdings, Inc.*, IPR2015-00449, Paper 10 at 13 (July 15, 2015). Indeed, it is unclear whether Petitioner relies on Oinonen alone, Whitley alone, or some unarticulated combination of Oinonen in view of Whitley or Whitley in view of Oinonen. Petitioner leaves it to the Board and Patent Owner to sort through its analysis, which is improper. *See Liberty Mut. Ins. Co. v. Progressive Casualty Ins. Co.*, CBM2012-00003, Paper 7 at 3 (Oct. 25, 2012).

Ground 2A suffers from the same deficiencies as Ground 1A. It contends that claims 1-4, 7-9, 11-15, 17-19, and 21 are unpatentable under 35 U.S.C. § 103 over Bielski and Wu. Pet., 3-4. But, again, Petitioner contends that Bielski and Wu separately disclose each element of each of claims 1-4, 7-9, 11-15, 17-19, and 21, without articulating any differences between the references and the claims or describing any specific combination of the two references, or why the combination of Bielski and Wu is necessary for these claim elements.

For example, for element [1Pre], the Petition relies on Bielski and Wu as each disclosing the claimed wireless system. *See* Pet., 52. Moving on to element [1A], the Petition contends that Bielski discloses the claimed environmental device, “such as an alarm system,” (*id.*), while also contending that “Wu discloses environmental devices, such as an air-conditioning controller,” (*id.*, 52). Petitioner continues its parallel mapping of Bielski and Wu to the challenged claim elements, alleging for element [1B] both that “Bielski discloses a base unit ... in the form of a check unit and a communication unit” and that Wu’s gateway device separately discloses the base unit. *Id.*, 53-54. The Petition continues in this manner for the remaining elements of claim 1, as well as for every element of claims 2-4, 7, 8, 9, 11-15, 17-19, and 21. *See id.*, 54-77. At no time in its analysis of elements [1Pre]-[1G] does Petitioner concede or acknowledge that either Bielski or Wu fails to disclose any limitation or explain the need for combining teachings of Bielski with Wu, or Wu



with Bielski. Petitioner's reliance on the combination of Bielski and Wu for obviousness is unclear. Again, Petitioner improperly leaves the obviousness analysis to Patent Owner and the Board. *See Liberty Mut.*, CBM2012-00003, Paper 7 at 3.

By relying on each asserted reference in parallel as purportedly disclosing each challenged claim element, Petitioner fails to identify any differences between the asserted prior art and the subject matter of the challenged claims, as required to resolve the *Graham* factors and conduct a proper obvious analysis. Indeed, Petitioner's practice obscures its challenges, and improperly "relies instead on the Patent Owner and the Board to determine those differences" and complete an obviousness analysis. *Liberty Mut.*, CBM2012-00003, Paper 7 at 3 (representative); *see also Becton, Dickinson & Co. v. Baxter Int'l, Inc.*, IPR2018-01742, Paper 8 (Mar. 13, 2019) (denying institution because the petition did not "identify specific differences between [the prior art] and the claimed subject matter or explain why those differences would have been obvious to an ordinarily skilled artisan"); *see also Apple Inc. v. Immersion Corp.*, IPR2016-01777, Paper 7 at 17 (Mar. 23, 2017); *HTC Corp. v. Cellular Commc'ns Equip. LLC*, IPR2016-01504, Paper 7 at 12-13 (Feb. 1, 2017) (denying institution because the petitioner did not identify any differences between the prior art and the challenged claims, and thus did not show a reasonable likelihood of prevailing).

Accordingly, Grounds 1A and 2A do not meet the Office's rules and the statutory requirements for the content of IPR petitions. 37 C.F.R. §§42.104(b)(2)-(4); 35 U.S.C. §312(a)(3) (a petition for IPR must "identif[y] ... with particularity ... the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim."). Additionally, remaining Grounds 1B-1E, 2B, and 2C challenge only claims depending from one of the independent claims addressed in Grounds 1A and 2A. *See* Pet., iv-vii, 35-48, 77-85. Thus, Grounds 1B-1E, 2B, and 2C inherit Ground 1A's and 2B's failures to identify any differences between the challenged claims and the asserted prior art.

At least some of the remaining Grounds separately fail to identify differences between the challenged dependent claims and the prior art. For example, in Ground 1B, Petitioner contends that claims 4-6 and 16 are unpatentable under 35 U.S.C. § 103 over Oinonen and Whitley, and further in view of Sears. Pet., 3. Claim 4, from which claims 5 and 6 depend, recites that "said remote unit is a cellular telephone handset with custom programmability." Petitioner relies on Sears for this element, contending that "Sears discloses Java and Java-like applications demonstrating that the POSITA would have understood the combined system would include a handset with custom programmability." *Id.*, 37. But earlier in the "Motivation to Combine" section for Ground 1B, Petitioner also contends that "Oinonen discloses that its handset comprises custom programmability." *Id.*, 35 (emphasis added). Because

Petitioner relies on both Oinonen and Sears as disclosing a handset with custom programmability as recited in claim 4, Petitioner's combination is superfluous and does not identify any differences between the claimed subject matter and the prior art.

In Ground 1C, Petitioner contends that claim 8 is unpatentable under 35 U.S.C. §103 over Oinonen and Whitley, and further in view of Antila. *Id.*, 3. Claim 8 recites that "the remote unit includes a liquid crystal display module." In the "Motivation to Combine" section, Petitioner contends that "Whitley discloses a mobile station, including the Nokia 9000 GSM communicator," and that "Antila confirms that the Nokia 9000 GSM communicator included dual LCD displays." *Id.*, 38. To the extent Petitioner alleges that Whitley and Antila both disclose a Nokia 9000 GSM communicator which has an LCD display, Petitioner's combination is superfluous and does not identify any differences between the prior art and claim 8.

For at least the reasons presented above, Grounds 1A-2D fail to identify differences between the asserted prior art references and the claimed subject matter. And because the Grounds do not identify the differences, they cannot explain why "the differences between the [claimed] subject matter sought ... 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 ...." 35 U.S.C. §103(a); *see also Graham*, 383 U.S. at 17-18 ("differences between the prior art and

the claims at issue are to be ascertained”). Thus, Petition does not show a reasonable likelihood that the Petitioner would prevail with respect to any challenged claim. 35 U.S.C. §314(a).

## **2. Petitioner Presents Conclusory Obviousness Rationale**

Beyond failing to identify differences between the challenged claims and the asserted references, Petitioner provides no rationale that purportedly would have led a person of ordinary skill in the art to combine the references to arrive at the claimed subject matter. In its “Motivation to Combine” sections, Petitioner discusses the asserted references in a vacuum, untied to any specific claim language. Petitioner does not explain what claim features Petitioner means to address by the combinations of references. Thus, while the Petition purports to provide some rationale to combine the references in general, that rationale does not explain why “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious.” 35 U.S.C. §103(a). And in some cases, Petitioner’s rationale does not give a person of ordinary skill in the art a reason to combine the references at all, much less in the way claimed. As a result, the Petition is conclusory and lacks “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Patent Owner identifies some examples below.

**a. Grounds 1A-1E**

Ground 1A challenges claims 1-3, 7, 11-15, 17-19, and 21 as unpatentable under 35 U.S.C. § 103 over Oinonen and Whitley. Petitioner’s reasoning for adding Whitley to Oinonen centers on Whitley’s purported ability to remotely monitor and/or control multiple devices. *See* Pet., 15 (“Oinonen, however, does not expressly articulate how its telecommunications device would be configured to monitor and/or control multiple devices”), 15 (“Whitley, unlike Oinonen, specifically discloses a data collection and control device (a ‘gateway’) that is connected to multiple devices”), 16 (“the Whitley gateway is advantageously configured to remotely monitor and control multiple devices”). But none of the challenged claims recites multiple environmental devices—they only require “an environmental device.” Moreover, Petitioner does not identify any specific claim elements relevant to Whitley’s purported ability to monitor and control multiple environmental devices. Petitioner’s vague reliance on Whitley “does not explain what differences between the challenged claims and [Reference 1] are being addressed by [Reference 2].” *LG Elec.’s, Inc. v. Cellular Commc’ns Equip. LLC*, IPR2016-00197, Paper 7 at 11 (Apr. 29, 2016).

Petitioner also cites Whitley’s alleged disclosure “that it would be desirable to take advantage of the SMS capability of a deployed GSM network to more efficiently provide remote monitoring and control of multiple distributed gateways.”

Pet., 16. But Petitioner already contends that “Oinonen discloses using a mobile device to monitor and/or control a device with SMS messages.” *Id.*, 15. Thus, according to Petitioner, Oinonen already has the functionality that Petitioner seeks to gain by incorporating Whitley—using SMS to monitor and control a device. If Oinonen already has the ability to monitor and/or control a device using SMS, as Petitioner contends, a person of ordinary skill in the art would not have made the superfluous combination.

Petitioner further asserts that “the POSITA would have been motivated to rely on Whitley because it allows for monitoring of activities over time, which allows the user to control devices and save energy.” *Id.*, 15. But Petitioner does not explain how this relates to the challenged claim language, much less “what differences between the challenged claims and [Reference 1] are being addressed by [Reference 2].” *LG Elec.’s*, Paper 7 at 11. Indeed, the challenged claims are silent regarding monitoring activities over time so that the user can control devices while saving energy. Moreover, Petitioner does not complete its analysis by explaining how Whitley’s configuration would allow for monitoring activities over time, controlling devices, and saving energy in a way that Oinonen’s supposedly deficient configuration would not. Thus, Petitioner’s conclusory rationale would not have motivated a person of ordinary skill in the art to combine Whitley with Oinonen, much less in the way claimed.

Petitioner's incomplete analysis also does not explain how to modify Oinonen based on Whitley to achieve any particular combination. For example, Petitioner does not identify any specific features of Whitley that would need to be incorporated into Oinonen or how Oinonen would need to be modified to accommodate the additions to: (1) monitor and control multiple environmental devices; (2) remotely monitor and control multiple distributed gateways; or (3) monitor activities over time and allowing the user to control devices and save energy. In sum, Petitioner's purported motivation to combine Oinonen and Whitley in Ground 1A consists merely of conclusory statements, and "obviousness cannot be sustained by mere conclusory statements." *KSR*, 550 U.S. 398 at 418. Grounds 1B-1E are also conclusory for at least the same reasons as Ground 1A because they rely on the analysis in Ground 1A in addressing dependent claim features.

**b. Ground 1B**

Ground 1B fails to provide a reason to combine Sears with Oinonen and Whitley for claim 4. Claim 4, from which claims 5 and 6 depend, recites that "said remote unit is a cellular telephone handset with custom programmability." Petitioner relies on Sears for this element, contending that "Sears discloses Java and Java-like applications demonstrating that the POSITA would have understood the combined system would include a handset with custom programmability." Pet., 37. But earlier in the "Motivation to Combine" section for Ground 1B, Petitioner also contends that

“Oinonen discloses that its handset comprises custom programmability.” *Id.*, 35 (emphasis added). Petitioner’s combination is superfluous because a person of ordinary skill in the art would not have looked to Sears for a handset with custom programmability if Oinonen already has one, as Petitioner contends. Thus, Petitioner’s reasoning for combining Sears with Oinonen and Whitley in Ground 1B is conclusory and lacks rational underpinning.

**c. Ground 1C**

Similarly, Ground 1C provides no reason that would have led a person of ordinary skill in the art to combine Antila with Oinonen and Whitley. Claim 8 recites that “the remote unit includes a liquid crystal display module.” In the “Motivation to Combine” section for Ground 1C, Petitioner contends that “Whitley discloses a mobile station, including the Nokia 9000 GSM communicator,” and that “Antila confirms that the Nokia 9000 GSM communicator included dual LCD displays.” *Id.*, 38. Petitioner’s combination is superfluous because a person of ordinary skill in the art would not have sought to add an LCD module from Antila if Whitley’s handset already has one, as Petitioner contends.

**d. Grounds 2A-2D**

Ground 2A challenges claims 11-4, 7-9, 11-15, 17-19, and 21 as unpatentable under 35 U.S.C. §103 over Bielski and Wu. Pet., 49-77. Petitioner’s stated rationale for combining Bielski and Wu is deficient.



Petitioner provides three reasons for adding Wu to Bielski, all of which concern SMS protocol: (1) “Wu provides specific motivation to rely on the SMS protocol as it is disclosed as being simple to implement because it consists of only two layers”; (2) “the widespread adoption of SMS, which was supported on virtually all mobile/cellular devices, would have allowed for the most users to implement the disclosed system”; and (3) “it would have been within the skill of the POSITA to implement SMS communications as the direct mobile communications protocol as Bielski already disclosed that SMS messages can be used to provide the status of devices to the user.” Pet., 51-52. But Petitioner contends that “Bielski discloses the use of SMS messages for communication between the base unit and remote unit.” *Id.*, 50. Assuming Petitioner’s contention as true, Bielski already discloses use of SMS messages, so there would be no reason for the POSITA to look to Wu, or any other reference, for an SMS implementation.

While Petitioner contends that since Bielski “does not further describe the details of the communications protocols,” a POSITA would look to Wu for “additional implementation details.” *Id.*, 51. But, Petitioner makes no argument for how “details of the communications protocols” absent from Bielski are relevant to the challenged claims. While the challenged independent claims recite “short message service (SMS),” their elements are not dependent on the “details” of the SMS protocol. Moreover, Petitioner does not identify any elements of the challenged

claims that are specific to Wu’s alleged disclosure of “communication protocols such as SMS, HTTP, and WAP” that remedy Bielski’s deficiencies. Petitioner’s vague reliance on Wu “does not explain what differences between the challenged claims and [Reference 1] are being addressed by [Reference 2].” *LG Elec.’s*, IPR2016-00197, Paper 7 at 11.

Petitioner’s incomplete analysis also does not explain how to modify Bielski based on Wu to achieve any particular combination. For example, Petitioner does not identify any specific features of Wu that would need to be incorporated into Bielski. Indeed, as Bielski allegedly already discloses “the use of SMS messages for communication between the base unit and remote unit,” (Pet., 50), it is unclear what disclosure from Wu Petitioner relies on for motivation to combine its teachings with Bielski.

The motivations to combine Bielski and Wu with other references under Grounds 2B-2D are also conclusory for at least the same reasons as Ground 2A—they rely on the combination of Bielski and Wu, and as a result, the obviousness analysis in Ground 2A.

**e. Ground 2B**

Ground 2B fails to provide a reason to combine Sears with Bielski and Wu for claims 5, 6, and 16, each of which recite elements related to “JAVA programming kernel” or the “J2ME programming kernel.” Petitioner relies on Sears for this

element, contending that “Sears discloses Java and Java-like applications demonstrating that the POSITA would have understood the combined system would include a handset with custom programmability.” Pet., 78. But, Petitioner also contends that Bielski “discloses that the check and communication unit includes JAVA applications ... [and] JAVA environment that supports JAVA applications.” *Id.* Petitioner’s combination is superfluous because a POSITA would not have needed to look to Sears for “Java and Java-like applications” if Bielski already disclosed this, as Petitioner contends. Thus, Petitioner’s reasoning for combining Sears with Bielski and Wu in Ground 2B is conclusory and lacks rational underpinning.

**f. Ground 2C**

Ground 2C fails to provide a reason to combine Ehlers with Bielski and Wu for claim 10. Petitioner contends that a “POSITA would have been motivated to incorporate Ehlers into Bielski and Wu,” because “Ehlers discloses control of in home devices (thermostats) to increase efficiency and to reduce costs ... enables a user to participate in well known demand reduction programs ... [and] provides an improved user interface allowing a user to precisely control preferences with a rich set of functions and features.” Pet., 80. But, Petitioner fails to explain how any of these alleged advantages of Ehlers related to claim 10, which recites “wherein the remote unit is configured to selectively disable transmission of SMS messages from

the base unit.” Petitioner appears to have selected arbitrary features of Ehlers as motivation to combine Ehlers with Bielski and Wu to render obvious a claim that has nothing to do with those features. There is no rational underpinning for combining Ehlers with Bielski and Wu, so Petitioner’s motivation combine to analysis under Ground 2C is faulty.

**g. Ground 2D**

Petitioner presents yet another superfluous motivation combine analysis for Ground 2D. Petitioner starts by contending that a “POSITA would have combined the teachings of Bielski and Wu with Menard as each of the references teach similar functionalities and architectures.” Pet., 81. Next, Petitioner contends “Bielski and Wu disclose monitoring and controlling alarm systems ... [and] Menard is directed to remote notification of monitored conditions ... us[ing] SMS messages.” *Id.* Then, Petitioner contends “a message that confirms that a command has been executed” is “implicit in Bielski and Wu.” *Id.*, 82. If, as Petitioner contends, a confirmation message is “implicit in Bielski and Wu,” and the systems of Bielski, Wu, and Menard have “similar functionalities and architectures” for “monitoring and controlling alarm systems,” using SMS messages, there would be no need for the POSITA to look to Menard. Thus, Petitioner’s reasoning for combining Menard with Bielski and Wu in Ground 2D is conclusory and lacks rational underpinning.

**C. Ground 1A: Petitioner Does Not Show That Oinonen and Whitley Include all Challenged Claim Elements**

**1. Independent Claim 1**

- a. Petitioner does not show that Oinonen or Whitley discloses [1E] “the base unit is configured to send ... current environmental information, to the remote unit”**

Element [1E] of claim 1 recites that “base unit is configured to send ... current environmental information.” According to Petitioner, Oinonen discloses this feature because “Oinonen discloses that [the first telecommunication terminal’s] short message includes environmental information in the form of the state of all input lines at the moment of examination, and further discloses messages containing current environmental information, including information about an alarm.” Pet., 20 (citing Ex. 1016, 10:38-42, 11:8-11) (emphasis added). Petitioner does not show that either the state of input lines or the information about an alarm includes the claimed environmental information.

As explained above, “environmental information” means information reflecting a characteristic of an environment. *Supra* Section II.C.1. Oinonen, however, does not teach that any of the state information on the first telecommunication terminal’s (TE1) input lines (the alleged “environmental information”) reflects a characteristic of an environment.

As highlighted below in blue in FIG. 3 of Oinonen, TE1 has “a connection interface with 9 available connection lines, eight of which can be used for the

transmission of signals and one being reserved as a signal ground conductor GND.”

Ex. 1016, 5:66-6:2.

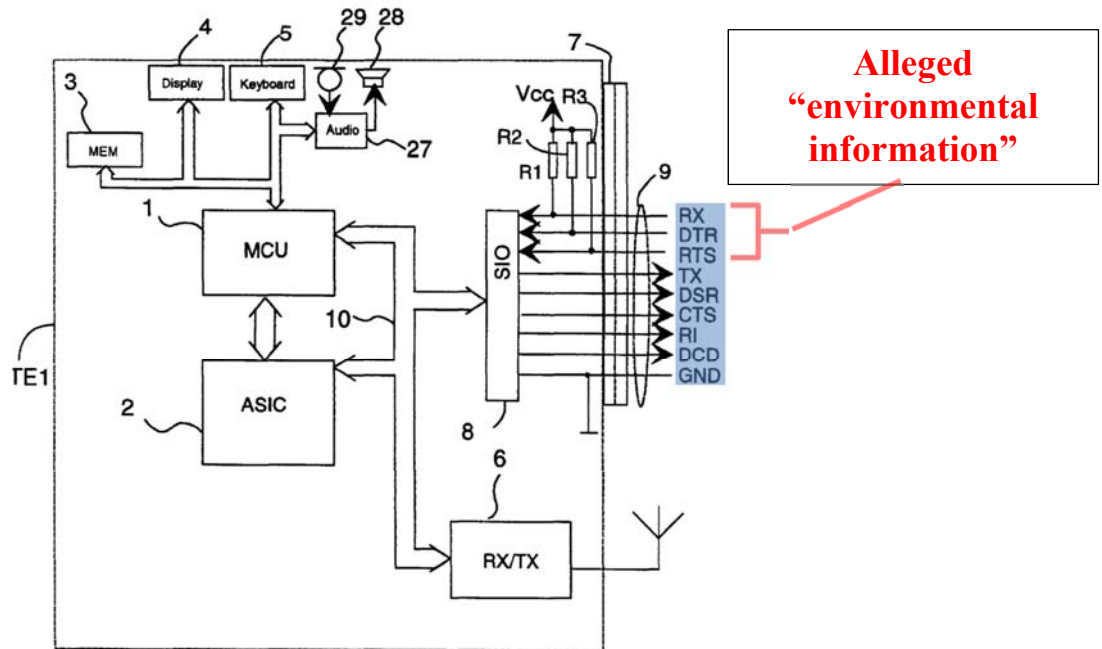


Fig. 3

**Oinonen, FIG. 3\*<sup>1</sup>**

Later in the column 10 passage cited by Petitioner, Oinonen explains that the “input lines” are the RX, DTR, and RTS lines. *Id.*, 10:47-48 (“the states of the input lines are: RX=0, DTR=1, RTS=0”). Thus, of the nine lines in Oinonen’s connection interface 9, Petitioner contends that the top three—RX, DTR, and RTS, highlighted in red above—contain the claimed environmental information. *See also id.*, 6:13-16 (“Input lines include a data reception line RX, a telecommunication terminal status

<sup>1</sup> Patent Owner identifies modified figures with “\*” throughout.

line DTR (data terminal ready), and a transmission request line RTS (ready to send)").

Oinonen, however, does not teach that any of the RX, DTR, and RTS lines contains information reflecting a characteristic of an environment. Although Oinonen mentions the RX line several times, Oinonen does not explain what information the RX line carries. *See id.*, 6:13-16, 8:7-19, 7:62-67, 9:50-55, 10:47-48. Oinonen only explains the details of how "bits to be transmitted, typically 8 bits at a time (a byte), are written in the data register of the serial connection circuit 8, from where the bits are transmitted one by one to the data line (RX/TX)." *Id.*, 7:62-67. Oinonen is silent regarding the type of data carried on the RX line, and thus cannot disclose that it carries "information reflecting a characteristic of an environment," as required by claim 1.

The remaining two input lines—DTR and RTS—also cannot disclose the claimed environmental information. As Oinonen explains, DTR means "data terminal ready" and RTS means "ready to send." *Id.*, 6:13-19. Thus, these bits merely indicate the readiness of the TE1 to receive and send data, respectively, which does not reflect a characteristic of an environment.

Nor can the "information about an alarm," Pet., 20, correspond to the claimed environmental information. If information about an alarm in Oinonen corresponds to the claimed environmental information, as Petitioner contends, then the alarm

corresponds to the claimed environmental device. But Oinonen never discloses sending a command for the alarm from TE2 to TE1. Oinonen only discloses sending information about the alarm from TE1 to TE2. *See, e.g.*, Ex. 1016, 3:27-44, 10:63-11:11. Thus, to the extent that Petitioner relies on the information about the alarm as the claimed environmental information and the alarm as the claimed environmental device, Oinonen cannot disclose element [1F], which recites that “the remote unit is configured to send ... a command for the environmental device ... to the base unit ....” Accordingly, under Petitioner’s mapping, the information about Oinonen’s alarm cannot correspond to the claimed environmental information.

As a result, the Petition does not show that Oinonen discloses element [1E], reciting that “the base unit is configured to send ... current environmental information, to the remote unit.” The Petition contends that Whitley discloses element [1E] by its gateway sending “energy usage data or ‘security breach’ alarm.” Pet., 20. But, as explained below, neither can correspond to the claimed environmental information. So even if the references are combined, the combination would still lack element [1E].

Regarding energy usage, Whitley explains that its “gateway 20 could have been instructed to poll devices coupled to it throughout the day to determine their energy usage.” Ex. 1023, 13:12-14. “For instance, gateway 20 can be connected to the thermostat, refrigerator, water heater, and washer/dryer in a particular residential



facility as well as to the general meter for that facility.” *Id.*, 16:21-23; *see also id.*, 9:1-3 (the devices might include “lights, security sensors, an answering machine, a home computer, etc.”). But information indicating how much energy a device, such as a refrigerator, has used does not reflect a characteristic of an environment. Thus, Whitley’s monitored energy usage cannot disclose the claimed environmental information.

Moreover, as with Oinonen, assuming Petitioner relies on the alarm as the environmental device/information in Whitley, Petitioner does not contend that Whitley discloses sending a command for the alarm. *See Pet.*, 21-22. Thus, under this mapping, Petitioner has not shown that Whitley discloses element [1F] reciting that “the remote unit is configured to send ... a command for the environmental device ... to the base unit ....”

For at least the reasons above, the Petition does not show that the combination of Oinonen and Whitley renders obvious element [1F].

**b. Petitioner does not show that Oinonen or Whitley discloses the Wireless Module of Elements [1D]-[1F]**

According to Petitioner, Oinonen’s first and second telecommunication terminals TE1, TE2, correspond to the claimed base unit and remote unit, respectively. *Pet.*, 18. And Petitioner identifies Oinonen’s “radio element [6]” as the claimed “wireless module” in element 1D. *See id.*, 19-20 (citing Ex. 1016, 7:12-21).

Petitioner, however, does not show that Oinonen's radio element 6 (the alleged wireless module) is configured to provide wireless connectivity between telecommunication terminal TE1 (the alleged base unit) and the second telecommunication unit TE2 (the alleged remote unit), as claimed. *See id.*, 19-20. Petitioner merely contends that "Oinonen discloses wireless connectivity in that the user communicates with the base unit" via short messages. *Id.*, 20. Petitioner does not, however, attempt to demonstrate that the radio element 6 (the alleged wireless module), specifically, provides that alleged wireless connectivity. *See id.* Indeed, Oinonen never mentions the "radio element 6" again after introducing it in col.7. *See* Ex. 1016, 7:19.

Thus, Petitioner does not adequately explain how Oinonen expressly discloses the claimed wireless module. Moreover, Petitioner does not contend that Oinonen inherently discloses that the radio element 6 provides the alleged "wireless connectivity in that the user communicates with the base unit" via short messages. *Pet.*, 20. Nor does Petitioner argue that it would have been obvious to combine Oinonen and Whitley in this way. *See id.* As discussed above, Petitioner's purported motivation for combining Oinonen and Whitley focuses on the ability to "monitor and/or control multiple [environmental] devices." *Id.*, 15. Petitioner, however, does not provide any motivation for modifying Oinonen's radio element in view of Whitley.

Element [1E] recites that “the base unit is configured to send a first SMS message, including current environmental information, to the remote unit through the wireless module” (emphasis added). Petitioner contends that Oinonen discloses element 1E by its first telecommunication terminal TE1 sending short messages, containing environmental information, to the second telecommunication terminal TE2. *Id.*, 20. Petitioner stops its analysis there, however, and does not explain how Oinonen discloses that the short messages are sent “through the wireless module”—Oinonen’s radio element 6—under Petitioner’s interpretation. *See id.* 19-20.

Because Oinonen does not mention “radio element 6” again after introducing it in column 7, Oinonen cannot expressly disclose sending a first SMS message, including environmental information, through Oinonen’s radio element 6 (the alleged “wireless module”). Moreover, Petitioner does not allege that this feature is inherent in Oinonen or would have been obvious. Petitioner’s purported motivation for combining Oinonen and Whitley is to “monitor and/or control multiple [environmental] devices,” *id.*, 15, but this rationale does not address element [1E]. *See also id.*, 21 (“Whitley discloses that the gateway receives data from various devices and packages the data as messages” (emphasis in original)).

Like element [1E], element [1F] recites that “the remote unit is configured to send a second SMS message, including a command for the environmental device, to the base unit through the wireless module” (emphasis added). According to

Petitioner, Oinonen discloses this element because the user at TE2 “can send control commands as short messages,” such as a command to lock the door. Pet., 21. Claim 1, however, requires that the second SMS message be sent to the base unit “through the wireless module,” which according to Petitioner is Oinonen’s radio element 6. *Id.*, 19-20. As with elements 1D and 1E, Petitioner does not explain how Oinonen discloses, or how Oinonen and Whitley render obvious, sending the alleged second SMS message through the “radio element 6,” which Oinonen only mentions once. *See id.*, 21-22.

Petitioner’s reliance on Whitley does not remedy the deficiencies of Oinonen regarding the claimed wireless module. For element [1D], Petitioner identifies the wireless transceiver of Whitley’s gateway as the claimed wireless module. *Id.*, 20. For elements [1E] and [1F], however, Petitioner does not show that the alleged messages are sent through Whitley’s wireless transceiver. *See id.*, 20-22.

For at least the reasons above, the Petition does not show that the combination of Oinonen and Whitley renders obvious elements [1D]-[1F].

## **2. Independent Claims 11, 18 and 21**

Independent claims 11, 18, and 21, though different in scope from independent claim 1, recite elements like those discussed above for independent claim 1 that the Petition does not demonstrate Oinonen and Whitley render obvious. For example, similar to element [1E], elements [11A], [11G], [11H], [18A], [18C],

[21A], and [21B] recite or require “environmental information.” For claims 11, 18, and 21, Petitioner again relies on the state of all input lines in Oinonen, the alarm information in Oinonen, the energy usage information of Whitley, and/or the alarm alert of Whitley as the claimed environmental information. *See* Pet., 26-29, 32, 35. Accordingly, for at least reasons like those discussed above for element [1E], the Petition does not show that Oinonen and Whitley render obvious claims 11, 18, and 21.

Additionally, like elements [1D]-[1F], elements [18B] and [21B] recite “a wireless module configured to send a first message to the remote unit and to receive a second message from the remote unit.” For these elements, Petitioner relies on its analysis of Oinonen and Whitley for elements [1E] and [1F]. Pet., 32, 35. Thus, for at least the further reasons discussed above for elements [1D]-[1F], the Petition does not show that Oinonen and Whitley render claims 18 and 21 obvious.

### **3. Independent Claim 19**

Element [19A] recites “a base unit operatively interfaced with an environmental device, and configured to receive a current status of an environmental device” (emphasis added). Petitioner appears to rely on its analysis for element [1E] to show that the base unit of claim 19 receives “a current status of an environmental device.” Pet., 33. For element [1E], Petitioner relies on the state of all input lines in Oinonen, the alarm information in Oinonen, the energy usage information of

Whitley, and/or the alarm alert of Whitley as the claimed environmental information. *See* Pet., 26-29, 32. Thus, Petitioner equates claim 19's "current state of an environmental device" with claim 1's "environmental information." Accordingly, for the same reasons discussed above for element [1E], Petitioner does not show that Oinonen and Whitley render claim 19 obvious. *Supra* Section IV.C.1.

Claim 19 further recites in element [19B] "a transmitter" that sends "a first message" and in element [19C] "a receiver" that receives "a second message." For these elements, Petitioner cites its analysis of elements [1D] and [1E], (*id.*, 34), which recite "a wireless module" and a first SMS message sent "through the wireless module." Thus, Petitioner equates the transmitter and receiver of claim 19 with the wireless module of claim 1. Accordingly, for the additional reasons discussed above for elements [1D]-[1F], Petitioner does not show that Oinonen and Whitley render claim 19 obvious. *Supra* Section IV.C.1.

#### **4. Dependent Claims 2, 3, 7, 12-15, and 17**

The above claims depend from one of independent claims 1 and 11, and thus incorporate all their elements. Accordingly, for at least the reasons discussed above for independent claims 1 and 11, the Petition does not show that Oinonen and Whitley render claims 2, 3, 7, 12-15, and 17 obvious.

**D. Grounds 1B-1D: Petitioner Does Not Show That Oinonen and Whitley Combined Respectively With Sears, Antila, and Ehlers Include all Challenged Claim Elements**

In Grounds 1B-1D, Petitioner asserts that dependent claims 4-6, 8-10, and 16 are unpatentable 35 U.S.C. § 103 over Oinonen and Whitley, and further in view of Sears, Antila, or Ehlers. Pet., 3. These claims depend from independent claim 1 or 11, and thus include all of their respective elements. Petitioner, however, does not rely on Sears, Antila, or Ehlers to rectify any of the deficiencies of Oinonen and Whitley for independent claims 1 and 11 discussed above. And they do not. Accordingly, for at least the same reasons as those discussed above for Ground 1A, Grounds 1B-1D do not show that any of claims 4-6, 8-10, and 16 would have been obvious.

**E. Ground 1E: Petitioner Does Not Show That Oinonen and Whitley Combined With Menard Include all Challenged Claim Elements**

In Ground 1E, Petitioner asserts that claims 20 and 22 are unpatentable under 35 U.S.C. § 103 over Oinonen and Whitley, and further in view of Menard. Pet., 3. Even if combined, however, the three references do not include all the features of claims 20 and 22.

**1. Menard Does Not Remedy the Deficiencies of Oinonen and Whitley**

In element [20B], claim 20 recites “a receiver” that “receives a first wireless message.” And in element [20D], claim 20 recites “a transmitter” that sends “a

second wireless message.” Claim 22 recites “a wireless module” [22B] configured to “receive a control message” [22C] and “send a status message” [22F]. Petitioner relies on its previous analysis identifying components of Oinonen and Whitley as the transmitter/receiver and the wireless module. Pet., 46-48. Petitioner does not rely on Menard to rectify the deficiencies of Oinonen and Whitley. Accordingly, for the additional reasons discussed above for elements [1D]-[1F], Petitioner does not show that Oinonen, Whitley, and Menard combined include elements [20B], [20D], [22B], [22C], and [22F].

**2. Oinonen, Whitley, and Menard Do Not Disclose or Suggest Element [20D] “a transmitter ... sending a second wireless message to the remote unit [that] includes information indicating that the command has been executed” and [22F] “a wireless module configured to ... send a status message indicating execution of said control information to the remote device”**

Claim 20 also recites that the transmitter sends a second wireless message that “includes information indicating that the command has been executed” [20D], and the command is “for the environmental device” [20B]. Similarly, claim 22 recites that the wireless module sends “a status message indicating execution of said control information to the remote device” [22F], and that the control information is “for controlling the environmental device” [22C]. The Petition does not demonstrate that Oinonen, Whitley, or Menard discloses or suggest these features.



Petitioner contends that “Oinonen discloses error messages that can be sent from the base unit to the remote unit if the command cannot be executed and likewise discloses that delivery of each message is confirmed.” Pet., 46-47 (citing Ex. 1016, 8:50-55). Petitioner mischaracterizes the disclosure of Oinonen. While Oinonen discloses sending an error notice, Oinonen does not disclose or suggest “that the delivery of each message is confirmed,” as Petitioner alleges. In the passage cited by Petitioner, Oinonen explains that, when one of the telecommunication units TE1, TE2 cannot process a control message, “it is possible to generate e.g. an error notice which is transmitted as a short message to the telecommunication terminal TE1, TE2 that sent the control message.” Ex. 1016, 8:50-55. But Oinonen is silent regarding confirming receipt of each message as Petitioner contends.

According to Petitioner, “Whitley also discloses confirming the accuracy of a message to the sender.” Pet., 47 (citing Ex. 1023, 9:22). In the cited passage, Whitley explains that the “gateway 20 confirms the accuracy of any received message to the sender.” Ex. 1023, 9:22. But confirming the accuracy of a message does not “indicat[e] that the command has been executed,” as recited in claim 20, or “indicat[e] execution of said control information to the remote device,” as recited in claim 22. For example, Whitley’s gateway might confirm the accuracy of a received message but never execute the message. Thus, Whitley’s confirmation does not satisfy claims 20 and 22.

Petitioner also relies on Menard for elements [20D] and [22F]. According to Petitioner, “Menard teaches sending a second acknowledgement message to the user to confirm that the command that was sent by the user has been executed.” Pet., 47 (citing Ex. 1020, ¶¶ [0068], [0179]. But claims 20 and 22 recite respectively that the command at issue is “a command for the environmental device” and “a command for controlling the environmental device” (emphases added). While Menard discloses notifying responsible parties RPs of the outcome of processing that the RPs requested, the requested processing relates to a third party—not the environmental device as claimed.

In paragraph [0068], cited by Petitioner, Menard teaches that a system notifies all responsible parties RPs via messaging when an alarm signal is received. Ex. 1020, ¶ [0068]. An RP responds by managing the alarm processing, and the system executes the processing such as by dispatching a response agency. *Id.* In paragraph [0179], also cited by Petitioner, Menard teaches that selected RPs can be “notified of the outcome of the process.” *Id.*, ¶ [0179]. For example, the RPs can be notified that “‘the police were dispatched at 10:05 AM,’ or ‘response was canceled by RP Susan Smith’ or ‘RP Jones received message and acknowledged receipt.’” *Id.* But a response agency, such as the police, is not an environmental device. Rather, in this context, Menard’s alarm corresponds to the claimed environmental device. *See* Pet.,

24 (“Menard is directed to remote notification of monitored conditions, including an alarm”).

Thus, even if Menard’s RP’s managing the alarm processing is considered a command, it is not “a command for an environmental device” (emphasis added). Menard does not disclose, for example, sending a command for the alarm, or notifying the RPs about the outcome of the command for the alarm. Accordingly, Petitioner has not shown that Menard discloses sending a message “indicat[ing] that the command has been executed” where the command is “for the environmental device” (emphasis added) as recited in claim 20. For the same reasons, nor has Petitioner shown that Menard discloses sending a message “indicating execution of said control information to the remote device” where the control information is “for controlling the environmental device” (emphasis added), as recited in claim 22.

For at least the reasons discussed above, even if combined, the Petition does not show that Oinonen and Whitley in view of Menard renders obvious claims 20 and 22.

**F. Ground 2A: Petitioner Does Not Show That Bielski and Wu and Combined Include all Challenged Claim Elements**

In Ground 2A, Petitioner contends that Bielski and Wu render obvious claims 1-4, 7-9, 11-15, 17-19, and 21 unpatentable under 35 U.S.C. § 103. Like the references considered during prosecution of the ’935 Patent—such as Heinonen and Kim discussed above—Bielski and Wu do not disclose two-way messaging between

the remote unit and the base unit. They do not disclose the ability to send both a first message from the base unit to the remote unit including environmental information **and** a second message containing a command for the environmental device from the remote unit to the base unit. At best, Bielski and Wu merely send a message from the alleged base unit to the alleged remote unit. They do not, however, have the capability to send another message from the alleged remote unit to the base unit that includes a command for the environmental device.

### **1. Independent Claim 1**

- a. Petitioner does not show that Bielski or Wu discloses elements [1F] “wherein the remote unit is configured to send a second SMS message, including a command for the environmental device, to the base unit through the wireless module” and [1G] “wherein the remote unit is configured to send a second SMS message, including a command for the environmental device, to the base unit through the wireless module”**

Petitioner contends that Bielski discloses element [1F] because “users enter the corresponding commands, such as on/off conditions or temperatures etc., into the mobile terminal and send this information [second message] ... to the control and communication unit 20 via the telecommunication network of a network operator, either with the help of the internet or directly.” Pet., 57 (citing Ex. 1017, ¶¶ [0063]-[0064]) (quotation omitted). Petitioner also notes that Bielski discloses “communication via SMS messages.” *Id.*, 58 (citing Ex. 1017, ¶ [0069]). Petitioner mischaracterizes Bielski’s disclosure.

Rather than sending a message, such as an SMS message, including a command, from the remote unit to the base unit, Bielski discloses that the user calls the phone number for the check and communication unit 20 and presumably uses dial tones to command the unit 20. *See* Ex. 1017, ¶ [0064]. But the Examiner allowed the '935 Patent over prior art over Kim which, like Bielski, did not disclose “sending a command from the remote unit to the base unit via an SMS message.” Ex. 1010, 306, 321.

As Petitioner notes, Bielski explains that “the user of the mobile terminal 30 can be informed about the operation conditions of the devices” by “enter[ing] the corresponding commands, such as on/off conditions or temperatures etc., into the mobile terminal and send this information.” Ex. 1017, ¶ [0063]. Then, the command “is transferred to the control and communication unit 20 via the telecommunication network of a network operator, either with the help of the internet or directly, and from there, it is transmitted to the devices inside the building 10 or serves as a nominal value which is required for the regulation of the devices.” *Id.*

But in the next paragraph, Bielski clarifies that the user separately calls the check and communication unit 20 (the alleged base unit) over a phone line to control the unit. *Id.*, ¶ [0064] (“For this purpose, the user enters the dialing number of the check and communication unit 20, which is assigned to the building 10, into their mobile phone or presses the corresponding symbol on the display”). Bielski does not

teach that the user can send a message, such as a SMS message, from the mobile terminal 30 that includes a device command to the unit 20. Thus, Bielski falls in the same category of prior art that the '935 Patent applicant distinguished during prosecution for lacking two-way messaging between a remote unit and base unit. For example, in one office action response, the applicant explained that Kim, which the Examiner had used to reject the claims, did not disclose SMS messaging between a remote unit and a base unit because “[a] telephone network 32 is used between a telephone signal transmission unit 24 and a telephone network accessing unit 12 to provide a dial-tone multi-frequency (DTMF) control of the electronic appliance.” Ex. 1010, 143. Bielski has this same deficiency.

Petitioner also cites paragraph [0069] of Bielski for the notion that Bielski discloses communication via SMS. Pet., 57-58. But here Bielski only teaches that “the actual status of the corresponding devices” can be sent “in the form of an SMS or by means of a voicemail.” Ex. 1018, ¶ [0069]. Thus, like the prior art considered during prosecution, Bielski at best discloses one-way communication of status information in the direction from the unit 20 to the mobile terminal 30. Bielski lacks two-way communication because it does not send any message, SMS or otherwise, containing a command from the mobile terminal 30 to the unit 20.

Wu does not remedy the deficiencies of Bielski because Wu does not disclose a remote unit configured to send a message including a command for the

environmental device at all, much less an SMS message including the command.

According to Petitioner, the GSM mobile terminal of Wu corresponds to the claimed remote unit, (Pet., 54-55), and the home devices of Wu correspond to the claimed environmental device, (*id.*, 54). Wu, however, does not teach that the GSM mobile terminal (alleged remote unit) is configured to send a message, such as an SMS message, including a command for a home device (alleged environmental device).

In FIG. 2, Wu shows “three proposed methods for communicating with home devices from remote locations.” Ex. 1018, 495.

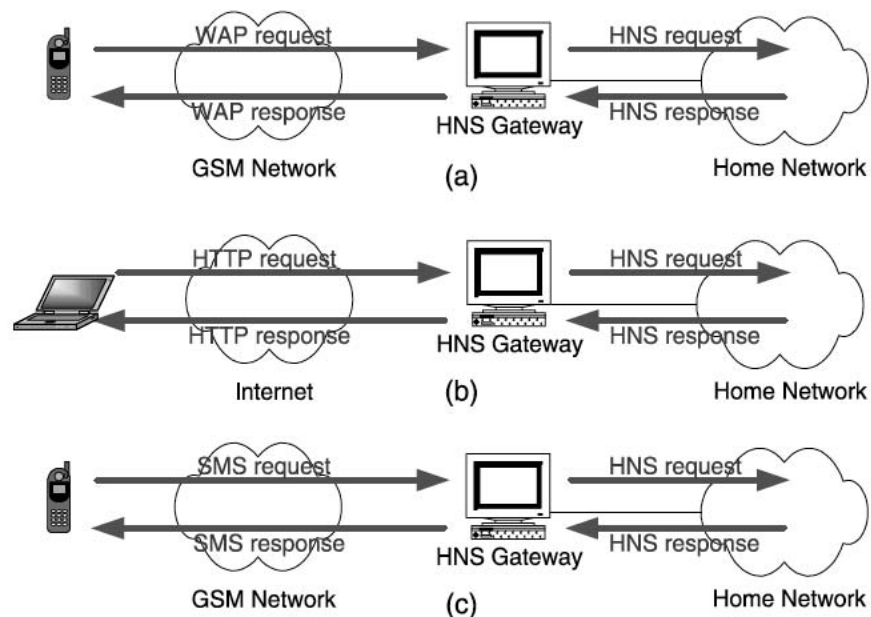


Fig. 2. Communication with the HNS in (a) WAP and (b) HTTP (c) SMS.

Petitioner relies on the “SMS request” in FIG. 2(c) as the second SMS message in claim 1. *See* Pet., 57-60. At best, however, this SMS request is a request for the HNS

gateway (the alleged base unit), not a command for the home device (the alleged environmental device).

In Wu, “[a]s shown in Fig. 2(c), a mobile station with SMS capability can communicate with the HNS via SMS protocol. With SMS, the user can monitor and control the home devices” through “a request-response mechanism.” Ex. 1018, 495. But “the request-response mechanism allows users to pull information from the HNS gateway and post control data to HNS gateway (i.e., set the control data to HNS gateway).” *Id.* (emphases added). Wu does not teach that the gateway further passes on the request, or any command included in the request, to the home device (the alleged environmental device) to control operation of the home device. Thus, Wu only discloses one-way communication because the SMS request is for the HNS gateway and the request stops at the gateway.

Rather than two-way messaging, Wu provides a separate “HNS configuration tool” through which “home users can easily configure home devices even though they do not know much about home networks.” *Id.*, 499.



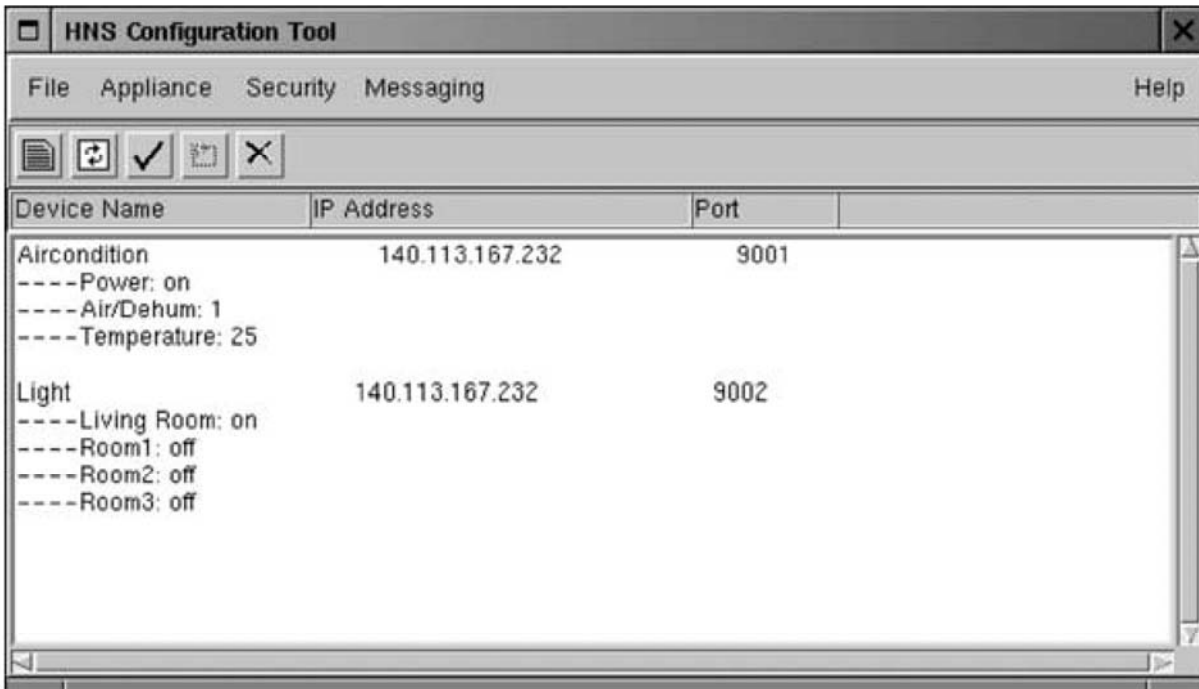


Fig. 8. HNS configuration tool.

As shown in Fig. 8 of Wu above, the HNS configuration tool “list[s] all appliances managed by HNS” and “[p]rovides the capability to change object values for each appliance on the managed list.” *Id.* For example, as shown, the user can set the temperature for the air conditioner or turn the lights on using the configuration tool. *See id.*

The HNS configuration tool uses two commands, “HS\_GET\_DATA and HS\_SET\_DATA,” to configure the home devices. *Id.*; *see also id.*, 496. To the extent the HNS configuration tool sends these commands to the home devices, the commands are not sent by the mobile terminal (alleged remote unit) via SMS or another type of message. As reflected in Fig. 8 of Wu, the HNS configuration tool

is distinct from the mobile terminal and its associated messaging. It is a GUI “management tool to locally coordinate a diverse set of independent devices connected to the HNS” with “a user-friendly interface that allows a home user to easily operate devices.” *Id.* The user operates the HNS configuration tool “locally” on the home network. Thus, any commands sent by the HNS configuration tool cannot correspond to the claimed command because they are not included in an SMS message nor sent by the mobile station (the alleged remote unit).

Wu separately confirms this by explaining that the home devices operate independently of the SMS requests. “[I]n the home appliance subsystem, an appliance can actively send an alerting message to the HNS gateway (by posting information) when detecting an abnormal situation or a warning signal. The HNS gateway receives this alerting message and then pushes it to the home user in SMS (see Fig. 3).” *Id.*, 495-496. That is, in Wu, the home devices independently update the gateway with any alerts or other information, and user can separately request that information from the HNS gateway via SMS requests for the HNS gateway.

Accordingly, for at least the reasons above, Bielski and Wu do not disclose element [1F] “wherein the remote unit is configured to send a second SMS message, including a command for the environmental device, to the base unit through the wireless module.” And because Bielski and Wu do not disclose the claimed second message including the command, they likewise cannot disclose element [1G]

“wherein the base unit is configured to receive the second SMS message, including the command, and to send the command to the environmental device to control the operation of the environmental device.”

## **2. Independent Claims 11, 18, 19, and 21**

Independent claims 11, 18, 19, and 21, though different in scope from independent claim 1, recite elements like those discussed above for independent claim 1 that the Petition does not demonstrate Bielski and Wu render obvious. For example, like elements [1F] and [1G], elements [11A], [11E], [11I], [11J], [18B], [18D], [18E], [19C], [19D], [21A]-[21D] recite elements related to a second SMS messaging including a command to the environmental device. For these elements, Petitioner relies on its analysis of Bielski and Wu for claim 1. *See* Pet., 67, 70, 72, 74, 75-77. Thus, for at least the further reasons discussed above for elements [1F] and [1G], the Petition does not show that Bielski and Wu render claims 11, 18, 19 and 21 obvious. *Supra* Section IV.F.1.a.

## **3. Dependent Claims 2-4, 7-9, 12-15, and 17**

The above claims depend from one of independent claims 1 and 11, and thus incorporate all their elements. Accordingly, for at least the reasons discussed above for independent claims 1 and 11, the Petition does not show that Bielski and Wu render claims 2-4, 7-9, 12-15, and 17 obvious.

**G. Grounds 2B and 2C: Petitioner Does Not Show That Bielski and Wu Combined Respectively With Sears and Ehlers Include all Challenged Claim Elements**

In Grounds 2B, Petitioner asserts that dependent claims 5, 6 and 16 are unpatentable under 35 U.S.C. § 103 over Bielski and Wu, and further in view of Sears. Pet., 3. In Ground 2C, Petitioner contends that claim 10 is unpatentable under 35 U.S.C. § 103 over Bielski and Wu, and further in view of Ehlers. These claims depend from independent claim 1 or 11, and thus include all of their respective elements. Petitioner, however, does not rely on Sears or Ehlers to rectify any of the deficiencies of Bielski and Wu for independent claims 1 and 11 discussed above. And they do not. Accordingly, for at least the same reasons as those discussed above for Ground 2A, Grounds 1B and 1C do not show that any of claims 5, 6, 10, and 16 would have been obvious.

**H. Ground 2D: Petitioner Does Not Show That Bielski and Wu Combined With Menard Include all Challenged Claim Elements**

In Ground 1D, Petitioner asserts that claims 20 and 22 are unpatentable under 35 U.S.C. § 103 over Bielski and Wu, and further in view of Menard. Pet., 4. Even if combined, however, the references do not include all the features of claims 20 and 22.

First, like independent claims 1, 11, 18, 19, and 21, independent claims 20 and 22 recite elements [20B], [20C], and [22C]-[22E] related to a message including a command for the environmental device or for controlling the environmental

device. For these elements, Petitioner relies on its analysis of Bielski and Wu for earlier independent claims. *See* Pet., 83-85. Thus, for at least the further reasons discussed above for elements [1F] and [1G], the Petition does not show that Bielski and Wu, and further in view of Menard render claims 20 and 22 obvious. *Supra* Section IV.F.1.a

Additionally, as explained above for Ground 1E, Menard does not disclose elements [20D] “a transmitter ... sending a second wireless message to the remote unit [that] includes information indicating that the command has been executed” or [22F] “a wireless module configured to ... send a status message indicating execution of said control information to the remote device.” *Supra* Section IV.E. And for Ground 2D, Petitioner relies on its flawed Menard analysis from Ground 1E. *See* Pet., 83, 85. Accordingly, Ground 2D does not show that claims 20 and 22 would have been obvious.

## V. CONCLUSION

For the foregoing reasons, Petitioner has failed to establish a reasonable likelihood that it will prevail on any of Grounds 1A-2D for any challenged claim. The Board should therefore deny institution of the Petition.

Respectfully submitted,

Dated: October 28, 2019

By: /James D. Stein/  
James D. Stein (Reg. No. 63,782)  
Lead Counsel for Patent Owner

**CERTIFICATION UNDER 37 C.F.R. § 42.24(d)**

The foregoing PATENT OWNER'S PRELIMINARY RESPONSE complies with the requirements of 37 C.F.R. § 42.24. As calculated by the word count feature of Microsoft Word, it contains 13,566 words, excluding the words contained in the following: Table of Contents, Table of Authorities, List of Exhibits, this Certification Under § 42.24(d), and Certificate of Service.

/James D. Stein/

James D. Stein (Reg. No 63,782)

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a copy of the foregoing PATENT OWNER'S PRELIMINARY RESPONSE accompanying exhibits was served electronically on October 28, 2019 on counsel of record for the Petitioner as follows:

Benjamin Pleune  
Christopher T.L. Douglas  
Adam J. Doane  
Alston & Bird LLP, Bank of America Plaza  
101 South Tryon Street, Suite 4000  
Charlotte, NC 28280-4000  
Tel: 704.444.1000  
Fax: 704.444.1111.  
ben.pleune@alston.com;  
christopher.douglas@alston.com; and  
adam.doane@alston.com.

Dated: October 28, 2019

By: /James D. Stein/  
James D. Stein (Reg. No. 63,782)