

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., SAMSUNG ELECTRONICS CO., LTD., and
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

SMART MOBILE TECHNOLOGIES LLC,
Patent Owner.

IPR2022-00981
Patent 8,472,936 B1

Before JAMESON LEE, HYUN J. JUNG, and
NAHAN A. ENGELS, *Administrative Patent Judges*.

LEE, *Administrative Patent Judge*.

JUDGMENT

Final Written Decision
Determining No Challenged Claim Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

We instituted an *inter partes* review of claims 1, 8–11, 13, 15, 17, and 19 (“challenged claims”) of U.S. Patent No. 8,472,936 B1 (Ex. 1001, “the

'936 patent") owned by Smart Mobile Technologies LLC ("Patent Owner"). Paper 14 ("Decision to Institute" or "Inst. Dec."). We have authority to conduct this *inter partes* review under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. We determine that Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. (collectively, "Petitioner") have not proven by a preponderance of the evidence that any of claims 1, 8–11, 13, 15, 17, and 19 of the '936 patent is unpatentable.

A. Background

Petitioner filed a Petition (Paper 3, "Pet.") requesting *inter partes* review of claims 1, 8–11, 13, 15, 17, and 19 of the '936 patent. Patent Owner filed a Preliminary Response. Paper 7 ("Prelim. Resp."). Petitioner filed an authorized Preliminary Reply. Paper 8. Patent Owner filed an authorized Preliminary Sur-Reply. Paper 9. The Decision to Institute was entered on December 5, 2022. Paper 14 ("Inst. Dec."). Thereafter, Patent Owner filed a Response. Paper 20 ("PO Resp."). Petitioner filed a Reply. Paper 22 ("Reply"). Patent Owner filed a Sur-Reply ("Sur-Reply"). Paper 27.

An oral hearing was held on September 12, 2023. A copy of the hearing transcript has been entered into the record. Paper 33 ("Tr.").

B. Real Parties in Interest

Petitioner identifies Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. as the real parties-in-interest. Pet. 103.

Patent Owner identifies Smart Mobile Technologies LLC as the real party-in-interest. Paper 5, 1.

C. Related Matters

The parties indicate that the '936 patent is involved in the following district court cases:

Smart Mobile Technologies LLC v. Apple Inc., Case No. 6:21-cv-00603 (W.D. Tex.); and

Smart Mobile Technologies LLC v. Samsung Electronics Co. Ltd. et al., Case No. 6:21-cv-00701 (W.D. Tex.).

Pet. 103; Paper 5, 1.

Petitioner further indicates that the '936 patent is also related to five patents that were/are the subject of the following administrative proceedings:

Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. v. Smart Mobile Technologies LLC, IPR2022-00807 (PTAB) (challenging U.S. Patent No. 9,756,168 B1);

Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. v. Smart Mobile Technologies LLC, IPR2022-00808 (PTAB) (challenging U.S. Patent No. 8,442,501 B1);

Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. v. Smart Mobile Technologies LLC, IPR2022-00979 (PTAB) (challenging U.S. Patent No. 9,049,119 B2) (pending);

Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. v. Smart Mobile Technologies LLC, IPR2022-00980 (PTAB) (challenging U.S. Patent No. 8,761,739 B1); and

Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. v. Smart Mobile Technologies LLC, IPR2022-00982 (PTAB) (challenging U.S. Patent No. 8,472,937 B1) (pending).

Pet. 103.

D. The '936 Patent (Ex. 1001)

The '936 patent is titled “Dynamically Configurable IP Based Wireless Devices and Wireless Networks.” Ex. 1001, code (54). The '936 patent describes a wireless communication and control system including a universal wireless device (e.g., hand-held computing device, wireless phone, cellular phone) and a server for storing communication and control protocols. *Id.* at 1:46–49, 1:57–58. The wireless device is dynamically configurable to work in multiple different environments (e.g., home, office, public). *Id.* at 2:35–50, Figs. 2A–2C. The wireless device “is able to sense which environment it is primarily operating in . . . while maintaining the ability to switch instantaneously to a different environment.” *Id.* at 3:5–7. The “[s]erver . . . can be used to keep . . . functional instruction sets (‘FIS’) and software . . . for use by” the wireless device. *Id.* at 3:57–60. For example, the server “will serve to provide the primary repository/exchange to deliver various mode reconfiguration requests” to the wireless device. *Id.* at 3:59–62. In one embodiment, a wireless device “may send a request to the server . . . for configuration as a cell phone because [the wireless device] is not in the home environment.” *Id.* at 3:62–64.

For example, when the wireless device enters an office environment, the wireless device “can serve as a cordless phone in the local environment for interoffice phone calls or local area network . . . access.” *Id.* at 4:43–46. The wireless device “can switch itself for optimal performance in the local office loop” “by downloading/uploading F[IS] . . . and/or protocols in tandem with [the] [s]erver.” *Id.* at 4:39–42. The wireless device configurations can be dynamically changed in real time as the wireless device changes environments. *Id.* at 6:59–67, 8:56–65. The '936 patent discloses that the wireless device may switch modes and that “[t]his

switching may be automatic or per specific functional instruction sets . . .
and preferences stored on the [s]erver . . . or in the [wireless device] itself.”
Id. at 4:13–15, 7:50–53.

Claim 1 is the only independent claim and is reproduced below:¹

1. [1.0] A wireless communication system, comprising:

[1.1] a wireless device which supports voice and data communications;

[1.2] a server; and

[1.3] a memory, wherein a processor is communicatively coupled with the memory,

[1.4] wherein the memory stores functional instructions including instructions for use in providing a plurality of functions to the wireless device, [1.5] at least one of the functional instructions provided for switching between one or more networks including at least one public network, and

[1.6] wherein the memory further stores a plurality of communication protocols, that facilitate communication between the server and the wireless device, and

[1.7] wherein the server is configured to send to the wireless device a plurality of functions,

[1.8] wherein the wireless device is dynamically configurable from a first function to a second function to enable a plurality of functions at the wireless device and

[1.9] wherein the wireless device is configured for Internet access.

Ex. 1001, 9:20–39.

¹ The bracketed captions are used by Petitioner to reference the different elements within claim 1. *See* Pet. 30–55. We use the same captions here for ease of reference, understanding, and consistency.

E. Asserted Grounds and Other Evidence

Petitioner relies on the following patent references:²

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 8–11, 13, 15, 17, 19	103(a) ³	Rautiola ⁴ , Regnier ⁵ , Sainton ⁶
1, 8, 9, 11, 13, 17, 19	103(a)	Grube ⁷ , Gillig ⁸

Petitioner relies on the Declarations of Michael D. Kotzin, Ph.D
(Exs. 1003, 1066).

Patent Owner relies on the Declaration of Todor Cooklev, Ph.D.
(Ex. 2031).

² The '936 patent issued from US Patent Application No. 13/615,274, filed on September 13, 2012, which is a continuation of US Patent Application No. 13/047,718, filed on March 14, 2011, now US Patent No. 8,090,356, which is a continuation of US Patent Application No. 09/591,381, filed on June 9, 2000, now US Patent No. 7,929,950, which is a continuation-in-part of US Patent Application No. 09/281,739, filed on June 4, 1999, now US Patent No. 6,169,789, which is a continuation-in-part of US Patent Application No. 08/764,903, filed on December 16, 1996. Ex. 1001, codes (21), (22), (63). Petitioner has not challenged the '936 patent's entitlement to the earlier filing date of any ancestral application.

³ The Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011) (“AIA”), included revisions to 35 U.S.C. §§ 102 and 103 that became effective after the effective filing date of the challenged claims. *See* Ex. 1001, codes (22), (63). Therefore, we apply the pre-AIA versions of 35 U.S.C. §§ 102 and 103(a).

⁴ US Patent No. 5,949,775, filed August 30, 1996 and issued September 7, 1999, to Rautiola et al. (Ex. 1005, “Rautiola”).

⁵ US Patent No. 5,689,708, filed March 31, 1995 and issued November 18, 1997, to Regnier et al. (Ex. 1006, “Regnier”).

⁶ US Patent No. 5,854,985, filed September 4, 1996 and issued December 29, 1998, to Sainton et al. (Ex. 1007, “Sainton”).

⁷ US Patent No. 5,201,067, filed April 30, 1991 and issued April 6, 1993, to Grube et al. (Ex. 1011, “Grube”).

⁸ US Patent No. 4,989,230, filed September 23, 1988 and issued January 29, 1991, to Gillig et al. (Ex. 1012, “Gillig”).

II. ANALYSIS

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

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

B. *Level of Ordinary Skill in the Art*

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

According to Petitioner,

[a] Person of Ordinary Skill in The Art (“POSITA”) in December of 1996 would have a bachelor’s degree in electrical engineering, or equivalent training, and approximately two years of experience working in the field of networking and wireless devices. Lack of work experience can be remedied by additional education, and vice versa.

Pet. 10 (citing Ex. 1003 ¶¶ 20–22).

Patent Owner does not dispute Petition’s definition of level of ordinary skill. *See generally* PO Resp.

We adopt Petitioner’s proposal regarding the level of one of ordinary skill in the art. This level of ordinary skill in the art is supported by the testimony of Dr. Kotzin (Ex. 1003 ¶¶ 20–22) and is consistent with the level reflected in the ’936 patent and the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. Claim Construction

1. General Principles

We use the same claim construction standard that would be used to construe a claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2022). The claim construction standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) is applicable.

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

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

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

2. “*dynamically configurable*”

The term “dynamically configurable” appears in limitation [1.8] of claim 1:

[1.8] wherein the wireless device is dynamically configurable from a first function to a second function to enable a plurality of functions at the wireless device and

Ex. 1001, 9:35–37.

Petitioner submits that “for the purposes of this proceeding, the terms of the Challenged Claims should be given their plain and ordinary meaning, and no terms require specific construction.” Pet. 10–11. In its Preliminary Response, Patent Owner proposed that, “[i]n the context of the ’936 Patent, the term ‘dynamically’ should be construed as ‘when and as needed, responsive to variable conditions and *without the need for user intervention*’” and that “dynamically configurable from a first function to a second function” means “instantaneously and automatically configurable according to instructions stored in the wireless device *rather than because of user intervention*.” Prelim. Resp. 4, 7 (emphasis added).

In the Decision on Institution, we did not find a need to construe “dynamically” alone. Instead, we tentatively construed the term “dynamically configurable.” We adopted Patent Owner’s proposed construction for “dynamically configurable,” in part. We did not agree with

Patent Owner that “dynamically configurable” requires *without the need for user intervention*. Inst. Dec. 10. We also did not include in the construction the requirement of “instantaneously,” but, instead, we added: “when and as needed and in real time.” *Id.* at 12. In summary, we tentatively construed “dynamically configurable” as “configurable when and as needed and in real time.” *Id.*

Our reasoning for tentatively determining that “*without the need for user intervention*” is not required was largely based on the description in the Specification of the ’936 patent that “switching [between modes of operation] may be automatic or *per specific functional instruction sets 218 and preferences stored on the Server C 214 or in the CT/MD [cellular telephone or mobile device] 202 itself.*” Ex. 1001, 4:8–15 (emphasis added). On that basis, we tentatively determined that “Patent Owner’s proposal precluding user intervention would improperly exclude embodiments described in the Specification.” Inst. Dec. 11. Nonetheless, we also stated: “We encourage the parties to develop a full record on the meaning of ‘dynamically configurable.’” *Id.* at 12.

Post institution, the parties further briefed the meaning of “dynamically configurable.” On the basis of the complete record developed during trial, we see that what Patent Owner means by “without the need for user intervention” is without user command at the time of dynamic configuring,⁹ we agree with Patent Owner that “dynamically configurable”

⁹ That meaning is conveyed by statements in the Patent Owner Response. PO Resp. 19–20; *see also* Tr. 36:1–5 (“JUDGE LEE: So – you have no problem with my understanding that ‘without user intervention’ means without user command at the time of making the change? MR. SHAW: Yeah. I think that’s – that’s consistent with our position.”).

does require configuration without the need for user intervention, i.e., absence of user intervention.

Patent Owner explains:

The '936 Patent does not teach that a user's preloading instructions and preferences into a device would constitute "dynamically" configuring a device from a first function to a second function. Indeed a POSITA would understand that *pre-programming* and *pre-storing* preferences, which is what is disclosed in the '936 Patent at 4:8–15, necessarily occurs *before* execution of a dynamic change. Ex. 2031, ¶47. Such pre-programming is distinct from the dynamic configuring of a device from a first function to a second function. *Id.* A POSITA would understand that to consider it otherwise, "dynamically configurable from a first function to a second function" would include preferences entered hours, days, or even years after the device is dynamically configured from the first function to the second function. *Id.* . . . While pre-established user preferences may set rules about what can trigger a dynamic configuration, the dynamic configuration itself is only executed when the device applies those rules to varying conditions to process a change from a first function to a second function. *Id.* Here, the specification does not teach any user intervention is involved in or required for execution of the change from a first function to a second function. *Id.* Patent Owner's construction does not exclude the embodiment referenced by the Board.

PO Resp. 19. The explanation is supported by the cited testimony of Dr. Cooklev. Ex. 2031 ¶ 47. Patent Owner further explains that even if a user previously stored functional instruction sets and preferences on the device, that does not mean there is user intervention in dynamically configuring the device from a first function to a second function. PO Resp. 20 (citing Ex. 2031 ¶ 48). Patent Owner notes that the Specification describes that when the stored instructions and preferences are finally utilized, it is the device that decides the preferred mode to be in, and that the device may perform the switch itself. *Id.* (citing Ex. 1001, 4:12–13, 5:1–4).

Patent Owner's explanations are cogent and persuasive. Petitioner does not, either in its Petition or in the Reply, contend that in the embodiment of the '936 patent where instruction sets and preferences are pre-stored or pre-programmed in the device, the user actually issues a command to reconfigure at the time of change in configuration. Neither does Petitioner's expert, Dr. Kotzin, so contend. *See generally* Ex. 1003; Ex. 1066.

Petitioner argues, however, that the '936 patent does describe embodiments in which the user issues a command to reconfigure at the time of changing the configuration, and that these embodiments would be excluded by Patent Owner's proposed construction to require absence of user intervention. Reply 9. Petitioner asserts that the Specification of the '936 patent "is replete with examples of device conversions based on user intervention such as keypad or voice commands." *Id.* None of the examples cited by Petitioner, however, supports the assertion.

First, Petitioner identifies claim 8 of the '936 patent. *Id.* Claim 8 depends from claim 1 and further recites: "wherein the wireless device includes any of a TV controller, garage controller, cordless phone, cellular device, mobile device, and other intelligent appliances." Ex. 1001, 10:9–12. But nowhere in claim 8 is any indication that the user issues a command, either through a keypad or by voice, to cause the device to make a switch between the enumerated modes of operation.

Second, the '936 patent Specification does describe that the device may serve several different roles, including cellular phone, TV controller, and garage door controller. *Id.* at 5:24–30. In that context, Petitioner cites to the following description in the Specification of the '936 patent: "The commands/instructions are keypad, textual, sound or voice activated and can

be in one or more languages, such as Chinese, English or any other language supported.” *Id.* at 5:35–37 (cited at Reply 9). But the description at most conveys that controlling commands are issued by keyboard or voice, when the device is already in TV mode, to operate the TV, or that commands are issued by keyboard or voice, when the device is already in garage door controller mode, to operate the garage door. The description cannot be reasonably stretched as describing that the keyboard or voice command is used to switch the functional mode of the device from cellular phone to TV controller or garage door opener and vice versa. There is a gap in Petitioner’s analysis, which cannot be filled by presumptions.

Further, the Specification of the ’936 patent actually describes the opposite with regard to how functionalities are changed from one to the other, i.e., that the switch is done automatically by the device. At first, the Specification describes how the device may operate in multiple network communication modes, e.g., cellular network, local office network, or home network. Ex. 1001, 3:57–67. Then, the Specification describes how the device switches from one network communication mode to the other:

The ability to sense and switch from one mode to the other may include linking 222 to a Global Positioning System (GPS) 220 that determines the exact location of the CT/MD 202. Thus the CT/MD 202 may sense (or the appropriate network box at the office or home may sense) the location of the network box or the net to bring the CT/MD 202 into any local or carrier loop 208.

The CT/MD 202 in conjunction with the Server C 218 can decide the preferred mode to be in. There may be a primary mode and several secondary modes or a hierarchy of modes. The primary mode may switch from local office FIG. 2B to a public carrier loop 208, followed by a home loop FIG. 2C. This *switching may be automatic or per specific functional instruction*

sets 218 and preferences stored on the Server C 214 or in the CT/MD 202 itself.

Id. at 4:1–15 (emphasis added). As we discussed above, with respect to the emphasized text, the switching is without the user issuing a command at the time the switching is done by the device. Thus, as described by the Specification of the '936 patent, switching of network communication mode is done automatically.

The Specification of the '936 patent follows with this description: “*In a similar fashion as described above*, the CT/MD 202 also serves as a remote controller 270 for controlling intelligent office appliances 238 such as copiers and faxes.” *Id.* at 4:47–49 (emphasis added). We find that this description conveys that the switching of functionalities of the device also occurs automatically as it is the case for switching between network communication modes. In that regard, Patent Owner’s expert, Dr. Cooklev, testifies:

[T]he specification teaches that the mobile device “is able to sense which environment it is primarily operating in at a given moment while maintaining the ability to switch instantaneously to a different environment.” [Ex. 1001], 3:9–11. The specification repeatedly states that the mobile device is able to “switch itself.” *Id.* 4:45–48; *accord id.* 5:8–11; 8:14–17; 8:41–44. This indicates that it is done without user intervention. Following these disclosures, the specification states that the device “in a similar fashion” may serve as a remote controller. *Id.*, 4:54–56, 5:30–32; 8:22–24; 8:54–56. This indicates that the device switches itself to a remote control function like the device switches itself for different environments.

Ex. 2031 ¶ 42. We credit this testimony of Dr. Cooklev which is supported by the cited evidence. Petitioner’s expert, Dr. Kotzin, does not address the “[i]n a similar fashion as described above” portion of the Specification.

Thus, notwithstanding Petitioner's assertions, we do not find any embodiment disclosed in the Specification of the '936 patent that has the device switch from one functionality to another in response to a user command at the time of making the switch, such as by keyboard entry or by voice, i.e., via user intervention.

We do not stop our analysis here, however, because absence of disclosure of an embodiment does not mean that embodiment is excluded from coverage by the claims. For reasons discussed below, we determine that reading "dynamically configurable" as encompassing manual switching of functional modes of the device by user command at the time of switching is not consistent with the Specification of the '936 patent, and also not consistent with the prosecution history of the '936 patent.

The Court of Appeals for the Federal Circuit has explained that as a matter of claim construction, even under the rule of broadest reasonable interpretation, which is broader and more encompassing than the *Phillips* rule applicable here, the correct inquiry of claim scope is not whether the specification proscribes or precludes a broad reading at issue and also is not whether that broad reading is not inconsistent with the specification.¹⁰ *In re Smith International, Inc.*, 871 F.3d 1375, 1382, 1383 (Fed. Cir. 2017). The court further explained that following such logic,

Any description short of an express definition or disclaimer in the specification would result in an adoption of the broadest *possible* interpretation of a claim term, irrespective of repeated and consistent descriptions in the specification that

¹⁰ Here, the Specification does not expressly proscribe or preclude a change in functional mode by user command at the time of the change. A change in functional mode by entry of a user command via a keyboard or voice is also not inconsistent with the device having an ability to switch automatically.

indicate otherwise. That is not properly giving the claim term its broadest reasonable interpretation in light of the specification.

Id. at 1383. In *Smith International*, the court ultimately concluded “giving the term ‘body’ such a strained breadth in the face of the otherwise different description in the specification was unreasonable.” *Id.*

As Patent Owner has noted (PO Resp. 16), the Specification of the ’936 patent repeatedly and consistently states that the mobile device is able to “switch itself” or “switches itself.” Ex. 1001, 5:1–4, 8:9–12, 8:36–39. The Specification of the ’936 patent also describes that the device “*can decide* the preferred mode to be in.” *Id.* at 4:8–9 (emphasis added). The Specification of the ’936 patent further states that the device “is dynamically *software* reconfigurable for the various environments.” *Id.* at 2:35–36 (emphasis added). In contrast, there is not any description, none, in the Specification of the ’936 patent of the user of the device issuing a command to the device at the time of making a functional switch to cause the device to switch function.¹¹ In light of such disclosures, we agree with Patent Owner that a fundamental aspect of the invention of the ’936 patent is that dynamic configuration occurs without user intervention, i.e., without user command at the time of the change in configuration. PO Resp. 13. In our view, it is not consistent with the Specification of the ’936 patent to read “dynamically configurable” as encompassing manual reconfiguration by user intervention, i.e., user command at the time of reconfiguring.

Reading “dynamically configurable” as encompassing manual reconfiguration by user intervention, i.e., user command at the time of reconfiguring, is also contrary to the prosecution history of the ’936 patent.

¹¹ Petitioner argues that there is such description. Reply 9. But, as we discussed above, there is none.

Specifically, the '936 patent claims priority to US Patent No. 7,929,950, ('950 patent) which issued from US Patent Application No. 09/591,381, which is a great-grandparent of the application that issued as the '936 patent.

Ex. 1001, code (63). Patent Owner explains:

During prosecution of the '950 Patent, the Examiner asserted that a prior art reference, Merritt, taught “means for **dynamically** configuring the partial functionality of the device” Ex. 2025, 2 (emphasis added). In response, the **Applicant distinguished** the prior art’s **manual, user-initiated process from the dynamic process** of the claimed invention:

In this instance Merritt et al refer to image communication using the store and forward mode either selected by the party or that may occur as a result of a failed attempt at connecting with the party. “For instance, in response to the call arriving at the image nodal processor, the image communications manager 22 may direct an audio response unit to prompt the caller to enter the preferred communication mode using the touch-tone key pad on a telephone station or by entering a response from the keyboard of the calling device [sic]” There is no question that ***this is a manual system in the Merritt teaching and is not enabled for dynamic sensing nor conversion*** of the communication protocols from a first communication protocol to a second communication protocol. Whereas, in the Rao teaching the mobile communication device is enabled for recognition of the communication protocol and for conversion of the capabilities of the communication device from a first communication protocol to a second communication protocol such as from Bluetooth to Ethernet and others utilizing its built-in processing and other capabilities in a standalone manner or in conjunction with a central server.

Ex. 2027, 18 (emphasis added). Thus, the Applicant (Rao) distinguished Merritt’s approach, which relied on user intervention (manual input) from its device, which does not. This statement informs the proper construction of the term “dynamically.”

PO Resp. 14–15.

Notwithstanding Petitioner’s arguments to the contrary (Reply 12), discussed below, Patent Owner’s above-quoted explanation is cogent and persuasive. Petitioner asserts there is no evidence the Examiner allowed the ’950 patent’s claims in response to the Applicant’s remarks that the Merritt reference was a “manual system.” Reply 12. Petitioner notes that the “Applicant presented several pages of arguments in attempting to distinguish a combination of Merritt and Doviak references, including that the *combination* failed to teach among other things, “means for transformation of a communication device for a multiplicity of communication protocols” and “that the subscriber is a mobile device.” *Id.* (citing Ex. 2019, 15–16). The argument is unavailing because the Applicant’s representation as identified by Patent Owner was a part of all of the remarks considered by the Examiner and did contribute to issuance of the ’950 patent claims. The representation need not be the only submission made by Applicant to have significance in claim construction.

Petitioner also asserts that

Patent Owner’s expert Dr. Cooklev testified upon cross-examination that Applicant’s remarks in the prosecution history about “dynamic [] conversion of the communication protocols,” such as between “Bluetooth to Ethernet” networks, are related to a completely different claim element [1.5]: “*switching between one or more networks.*” See Ex. 1065, 69:1–70:14, 75:19–76:4.

Id.

We have reviewed the cited portions of the cross-examination transcript. Dr. Cooklev did not testify that the Applicant's remarks at issue relate to element [1.5] of claim 1 of the '936 patent, which does not include any form of the word "dynamic." Even assuming that the remarks relate to element [1.5] of claim 1 of the '936 patent, that does not mean they do not relate to element [1.8] of claim 1 of the '936 patent, which includes the term "dynamically configurable." The remarks are clearly significant for claim element [1.8] because of their discussion of dynamic conversion.

Dr. Cooklev testified that "[b]ecause Merritt teaches manual system, I mean there is a touchtone keypad, things like that, so the way I understood the question, yes, Merritt does not teach dynamic conversion." Ex. 1065, 75:22–76:4. Although the Applicant's remarks specifically concern conversion of one communication protocol to a second communication protocol and claim element [1.8] concerns dynamic configuring a first function to a second function, Petitioner presents no reason why the same concept of dynamic conversion would have different meanings within the same patent document.

Petitioner additionally argues that in related district court litigation involving the '936 patent, Patent Owner's contention about an allegedly infringing device was that "when the user of a '936 Infringing Device asked Siri to make a call, the[] Device converted from whatever function it was performing to a call function." Reply 10 (citing Ex. 1063, 11). Petitioner points out that this assertion of Patent Owner contradicts Patent Owner's proposed claim construction requiring absence of user intervention. *Id.* at 10–11. At oral hearing, counsel for Patent Owner represented that that position of Patent Owner before the district court was only a preliminary contention and also an alternative infringement theory. Tr. 30:8–21, 31:26–

32:7. Counsel for Patent Owner also represented that Patent Owner will revise any infringement theory that is contradictory to its position before the Board that dynamic configuration requires absence of user intervention. *Id.* at 34:1–6. These representations resolve the inconsistency noted by Petitioner.

Petitioner further identifies “without the need for user intervention” in Patent Owner’s proposed construction as a negative limitation and asserts that negative limitations must find support either in the specification or the prosecution history. Reply 8–9. For reasons discussed above, the limitation is supported by both the Specification of the ‘936 patent and the prosecution history of the ‘936 patent (Applicant’s remarks in the great-grandparent application leading to issuance of the ‘950 patent). In any event, it is questionable whether the phrase even is a negative limitation, given that its meaning seemingly can be equally conveyed by a non-negative term such as “automatic” or “automatically.” *See Intel Corporation v. Qualcomm Incorporated*, 21 F.4th 801, 812 (Fed. Cir. 2021) (an affirmative construction may take the place of a purely negative construction).

Petitioner also notes that Patent Owner’s proposed construction to include “without the need for user intervention” introduces an unclaimed limitation of a “user” which does not appear in claim 1. *Id.* The argument is unavailing, for two reasons. First, “absence of user intervention” does not require anything to be done by a user. Second, if otherwise supported by the specification and/or prosecution history, not every requirement derived through claim construction needs to be expressly recited in the claim.

For the foregoing reasons, on the full record before us, we construe “dynamically configurable” as “configurable when and as needed and in real time, without the need for user intervention.”

D. Petitioner's Alleged Discrediting of Dr. Cooklev's Declaration

Petitioner makes several arguments discrediting Dr. Cooklev's declaration (Ex. 2031) and asserts that Dr. Cooklev's declaration should be accorded little to no weight. Reply 13–14. For reasons discussed below, we are unpersuaded that Dr. Cooklev's declaration should be accorded little to no weight.

First, Petitioner asserts: “Dr. Cooklev's declaration merely repeats the same arguments of Patent Owner's Preliminary Response. Indeed, Dr. Cooklev even testified in deposition: ‘**ultimately counsel formulated my opinions.**’” Reply 13 (quoting Ex. 1065, 14:1–3). We are not persuaded that the testimony of Dr. Cooklev does not reflect the opinion of Dr. Cooklev such that it constitutes mere attorney argument. With respect to the above-noted testimony, Dr. Cooklev explained:

THE WITNESS: Well, maybe I misspoke. To begin with, these are my opinions. And I also testified, I believe, that I had communicated my opinions to counsel. Ultimately, counsel helped format those opinions, I mean put them in a format that is appropriate.

So maybe that is the— that's how I would clarify my— the answer that I gave earlier in the morning.

Ex. 1065, 96:5–14. Dr. Cooklev further explained: “These opinions do not come from counsel. They come from me.” *Id.* at 96:20–21.

Second, Petitioner asserts that Dr. Cooklev “repeatedly testified that he has not analyzed the claims from the perspective of a POSITA.” Reply 13 (citing Ex. 1065, 32:15–19, 41:12–19). We have reviewed the cited portions of the deposition transcript and find Petitioner's characterization of Dr. Cooklev's testimony is inaccurate. Dr. Cooklev did not testify that he did not analyze the claims of the '936 patent, and Dr. Cooklev did not testify that he did not analyze the

claims of the '936 patent from the perspective of one of ordinary skill in the art.

Rather, Dr. Cooklev testified that in his declaration he did not analyze the particular questions he was being asked by counsel for Petitioner, i.e., “So in 1996, a person of skill in the art would not know if a laptop could store communication and control protocols, is that your testimony?” and “but you’re offering no opinion on whether a cellular phone or how a cellular phone operates in 1996?” Ex. 1065, 32:6–9, 32:15–19, 41:12–19.

Third, Petitioner asserts:

Dr. Cooklev repeatedly stated he did not know the answer to basic questions—which would be apparent to anyone, let alone a POSITA who has a technical degree—about how a telephone or garage door opener works. Ex. 1065, 39:18–40:1, 44:20–22, 55:7–17, 94:8–11. In one instance, when asked “would a POSITA in 1996 understand that you can operate those appliances like a garage or a TV by pressing a button on the remote controller, for instance a power on or off button?”—Dr. Cooklev testified, “But that’s not what I had to analyze.” Ex. 1065, 92:2–13.

Reply 13–14. We have reviewed the cited portions of Dr. Cooklev’s deposition testimony and do not find, as Petitioner suggests, that Dr. Cooklev expressed a lack of substantive technical knowledge to answer the questions asked. Rather, as the above-quoted example shows, Dr. Cooklev simply was noting that the questions went beyond the scope of direct testimony in his Declaration, or that he needed more time or context to answer the questions asked. We do not glean from these answers that Dr. Cooklev lacks sufficient knowledge and experience to answer the questions substantively.

For the foregoing reasons, we decline to accord the testimony of Dr. Cooklev little or no weight as requested by Petitioner.

*E. Alleged Obviousness of Claims 1, 8–11, 13, 15, 17, and 19 over Rautiola, Regnier, and Sainton*¹²

1. Principle of Obviousness

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the claimed invention, as a whole, would have been obvious to a person having ordinary skill in the art to which the claimed invention pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including:

(1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness.¹³

Graham v. John Deere Co., 383 U.S. 1, 17–18 (1966). There must be reasoning with rational underpinning to support combining teachings from multiple references. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

2. Overview of Rautiola (Ex. 1005)

Rautiola is titled “Office Communication System.” Ex. 1005, code (54). Rautiola describes an integrated office communication system employing a local area network (LAN) for intraoffice communications and a public cellular radio network for outside communications. *Id.* at code (57).

¹² Patent Owner asserts that Regnier is non-analogous art. PO Resp. 22–35. Even assuming Regnier is analogous art, we determine, as explained below, that Petitioner has not proven any claim to be unpatentable. Thus, we need not address Patent Owner’s non-analogous art assertion for Regnier.

¹³ Patent Owner has not presented objective evidence of nonobviousness in this proceeding. See PO Resp.

telephones 7, terminals 9 that use infrared (IR) connections (“IR terminals”), and users’ computers 10. *Id.* at 6:21–38, 6:59–65, 7:9–23.

Figure 2 shows each of the mobile devices connects with the LAN via different types of base stations: mobile stations 5 connect to low power base units 4; cordless telephones 7 connect to their own base units 6; and IR terminals 9 connect to IR base units 8. *Id.* at 6:30–44, 6:59–65, 7:14–18. Rautiola explains that terminals interact with “one or more servers which take care of certain functions related to the distribution of resources, such as the database services and voice mail and e-mail services.” *Id.* at 4:30–34.

3. *Overview of Regnier (Ex. 1006)*

Regnier is titled “Client/Server Computer Systems Having Control of Client-Based Application Programs, and Application-Program Control Means Therefor.” Ex. 1006, code (54). Regnier describes a resource manager in a client/server computer network which controls the availability of system resources. *Id.* code (57). A system administrator generates a set of profiles which specify which system resources each user may employ for each of multiple application programs. *Id.* Thereafter, individual application programs may internally configure their possible choices of such system resources according to these profiles on a dynamic basis. *Id.*

Regnier explains that “[m]ost present client/server networks . . . application programs are split into two portions” where a “server portion executes within the server computer, while a separate client portion executes within each client computer.” *Id.* at 1:35–40. Regnier’s application resource manager operates using a “control program located in the server.” *Id.* at 3:41–42, 5:16 (identifying server control module 240).

Regnier’s process begins when a user signs on at one of the client terminals 130 and the server authenticates the user’s identity. *Id.* at 6:35–39.

The user may then choose to initiate an application. *Id.* at 6:49–53. After the user selects an application, the system consults the user’s profile to determine whether access is permitted. *Id.* If no access is permitted, the system blocks the application. *Id.* at 7:8–10. If the user is permitted partial access, a user interface for the chosen application can be dynamically modified so the interface only displays options accessible to the user. *Id.* at 7:16–19, 7:66–8:3.

4. *Overview of Sainton (Ex. 1007)*

Sainton is titled “Adaptive Omni-Modal Radio Apparatus and Methods.” Ex. 1007, code (54). Sainton generally relates to wireless communication devices and systems for different radio frequencies, transmission protocols and radio infrastructures. *Id.* at 1:8–12. Figure 7 of Sainton is reproduced below.

FIG. 7

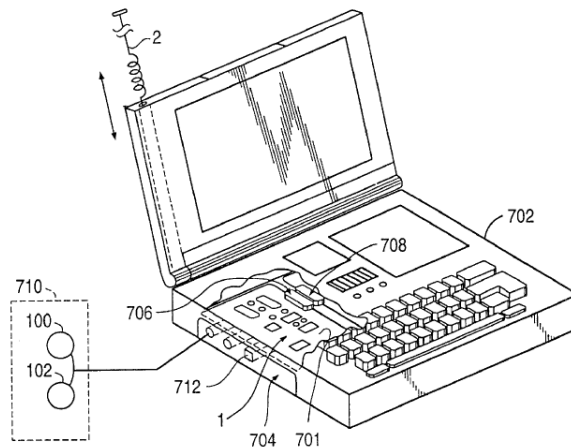


Figure 7 is a block diagram of personal computer 702 incorporating omni-modal radio communications circuit 1. *Id.* at 4:23–26. Computer 702 includes antennae 2 and interface port 704 that allows for an integrated circuit card to be inserted. *Id.* at 15:9–11. Interface port 704 has installed

therein removable card 701 comprising omni-modal circuit 1. *Id.* at 15:11–13. In a preferred embodiment, omni-modal radio communications card 701 is in the form of a Personal Computer Memory Card International Association (PCMCIA) card. *Id.* at 15:23–26. Microprocessor 110 in the PCMCIA card allows the circuitry to select either making landline transmission via external jack 712 or making cellular radio transmission via antennae 2. *Id.* at 15:43–46.

5. *Independent Claim 1*

a) *Preamble [1.0]*

Claim 1 in its preamble recites: “A wireless communication system.” Ex. 1001, 9:20. Petitioner contends that Rautiola “discloses ‘a *wireless communication system*’ because it teaches ‘a local area network [LAN] in the office and a cellular radio network between office units.’” Pet. 30 (citing Ex. 1005, Fig. 2, 3:36–38) (alteration by Petitioner). Petitioner further contends that “[o]utside the LAN, devices use the wireless ‘**GSM... cellular radio system**’” and “[w]ithin the LAN, a wireless ‘connection to a terminal is made via an **infrared link**.’” *Id.* (citing Ex. 1005, 4:26–27, 5:20–23; Ex. 1003 ¶¶ 82–85) (emphasis in original). Patent Owner does not dispute these contentions.

b) *Limitation [1.1]*

Claim 1 in limitation [1.1] recites: “a wireless device which supports voice and data communications.” Ex. 1001, 9:21–22.

Petitioner contends Rautiola’s Figure 2 “illustrates terminal 9 depicted as a portable laptop computer, which uses a wireless ‘infrared connection’ to connect to the ‘local area network LAN.’” Pet. 31–32 (citing Ex. 1005, Fig. 2, 7:16–18). According to Petitioner, “as a terminal physically leaves the

office, it connects to ‘a public cellular radio network.’” *Id.* at 32 (citing Ex. 1005, 13:30–39).

Petitioner contends that “the laptop (the wireless device) supports ‘data communications’ because the LAN provides ‘**database services and voice mail and e-mail services**’ to the wireless devices.” *Id.* at 32 (citing Ex. 1005, 4:33–34). Petitioner also contends that “Rautiola further teaches that telephone services (‘voice [] communications’) are provided to the wireless devices: ‘the users may also manage the telephone services via their computer terminals connected to the local area network.’” *Id.* at 32–33 (citing Ex. 1005, 1:37–39; Ex. 1003 ¶¶ 86–90) (alteration by Petitioner). Petitioner also cites Sainton for this limitation. *Id.* at 33–35. Patent Owner does not dispute these contentions.

c) Limitation [1.2]

Claim 1 in limitation [1.2] recites: “a server.” Ex. 1001, 9:23. Petitioner contends that “Rautiola teaches ‘**one or more servers** which take care of certain functions related to the **distribution of resources, such as the database services and voice mail and e-mail services**’ and that Figure 2 “illustrates server 11 connected to the LAN.” Pet. 35 (citing Ex. 1005, 4:30–34, Fig. 2; Ex. 1003 ¶¶ 97–99). Petitioner also cites Regnier for this teaching. *Id.* at 36–39. Patent Owner does not dispute these contentions.

d) Limitation [1.3]

Claim 1 in limitation [1.3] recites: “a memory, wherein a processor is communicatively coupled with the memory.” Ex. 1001, 9:24–25. Petitioner contends that “Sainton teaches that a laptop computer includes a memory coupled to a processor, describing an ‘omni-modal circuit 1’ that can be a PCMCIA card and includes ‘**microprocessor 110, memory 112**.’” Pet. 39 (citing Ex. 1007, 8:19–25, 15:13–26) (emphasis in original); *see id.* (citing

Ex. 1005, Fig. 2, 10:49–53; Ex. 1007, Fig. 7, 15:40–46; Ex. 1003 ¶¶ 105–110). Patent Owner does not dispute these contentions.

e) Limitation [1.4]

Claim 1 in limitation [1.4] recites: “wherein the memory stores functional instructions including instructions for use in providing a plurality of functions to the wireless device.” Ex. 1001, 9:26–28.

Petitioner contends that “Rautiola discloses that services or ‘*functions*,’ such as ‘the database services and voice mail and e-mail services’ are distributed to the laptop (and other client devices).” Pet. 41 (citing Ex. 1005, 4:30–34). “Rautiola further explains that telephone services are also provided to the client: ‘**the users may also manage the telephone services via their computer terminals**’ connected to the local area network.” *Id.* (citing Ex. 1005, 1:37–39).

Petitioner contends that “[t]o the extent Rautiola does not explicitly teach that the laptop stores ‘*functional instructions including instructions for use in providing a plurality of functions*,’ Regnier teaches these well-known implementation details.” *Id.* (citing Ex. 1003 ¶¶ 113–116). According to Petitioner,

Regnier teaches a technique for providing a service to a client device in a client/server network, such as the system of Rautiola. Specifically, Regnier discloses that the service (“*function*”) comprises a server portion as well as a client portion that is stored on and executed by the client device: “a server portion executes within the server computer, while **a separate client portion executes within each client computer** from which a user can invoke the application.”

Additionally, Regnier teaches that the “**client portion 291**” of the application “**may be downloaded from server 110 to terminal 130** upon a request from the user ... **or it may reside permanently within terminal 130.**” Here, a POSITA would

have understood that such instructions downloaded to or residing permanently within a computer terminal would be stored in the memory discussed above at [1.3].

Id. at 41–42 (citing Ex. 1006, 1:35–40, 5:52–54; Ex. 1003 ¶¶ 117–122).

Patent Owner does not dispute these contentions of Petitioner.

f) Limitation [1.5]

Claim 1 in limitation [1.5] recites: “at least one of the functional instructions provided for switching between one or more networks including at least one public network.” Ex. 1001. 9:28–30.

Petitioner contends that Sinton “teaches that one example of ‘functional instructions’ includes instructions for switching between networks,” specifically, “that a laptop with PCMCIA card ‘may have a preprogrammed routine for selecting information carriers based on varying criteria.’” Pet. 43 (citing Ex. 1007, 16:28–34). “Sinton also teaches that the laptop with PCMCIA card can use various wireless networks, including the types of cellular radio networks and wireless LANs in Rautiola’s system, such as ‘the U.S. cellular telephone network... and wireless LAN systems.’” *Id.* (citing Ex. 1007, 5:14–29; Ex. 1003 ¶¶ 123–132) (alteration by Petitioner).

Patent Owner does not dispute these contentions of Petitioner.

g) Limitation [1.6]

Claim 1 in limitation [1.6] recites: “wherein the memory further stores a plurality of communication protocols, that facilitate communication between the server and the wireless device.” Ex. 1001, 9:31–33.

Petitioner contends that “it would have been obvious to a POSITA that, for Rautiola’s laptop to communicate with an office LAN server using the infrared link or using a cellular protocol outside the office LAN via

PCMCIA card, as taught by Sainton, the laptop includes memory that ‘*stores a plurality of communication protocols.*’” Pet. 45. Petitioner further contends that “[t]o the extent Rautiola does not explicitly teach a plurality of communications protocols stored in the laptop’s memory, a POSITA would have understood this to be obvious in view of Sainton” because “Sainton teaches storing ‘**a library of command, control and data transmission protocols appropriate for each supported system**’ on the laptop.” *Id.* (citing Ex. 1007, 5:52–63).

In its Patent Owner Response, Patent Owner does not dispute these contentions of Petitioner.

h) Limitation [1.7]

Claim 1 in limitation [1.7] recites: “wherein the server is configured to send to the wireless device a plurality of functions.” Ex. 1001, 9:33–35.

Petitioner contends that “Rautiola teaches ‘**one or more servers** which take care of certain functions related to the **distribution of resources, such as the database services and voice mail and e-mail services**’” and that “one server can distribute various voice, e-mail, and data services to client computers, such as laptop 9.” Pet. 46 (citing Ex. 1005, Fig. 2, 4:31–34, 1:31–36). Petitioner further contends that

Regnier teaches a technique for how services provided by a server are obtained by a client device. As discussed at [limitation] [1.4], Regnier teaches that for “application programs in a client/server network, a portion 211 of the application is physically located and executes in the server 110” and “[a]nother portion 291 of the same application executes in the client terminal 130.” The client portion of the application “**may be downloaded from server 110 to terminal 130** upon a request from the user.”

Id. at 47–48 (citing Ex. 1006, 5:47–54) (alteration by Petitioner).

Patent Owner does not dispute these contentions of Petitioner.

i) *Limitation [1.8]*

Claim 1 in limitation [1.8] recites: “wherein the wireless device is dynamically configurable from a first function to a second function to enable a plurality of functions at the wireless device.” Ex. 1001, 9:35–38.

Petitioner asserts:

Regnier’s technique of a client device that (i) downloads client-side portions of application services and (ii) can dynamically choose to use and/or access the service based on the server dynamically allowing access, *discloses a client that is dynamically configurable to enable a plurality of functions (e.g., office telephone, database, e-mail).*

Pet. 54 (emphasis added) (citing Ex. 1003 ¶¶ 158–163).

Petitioner explains that “Regnier explains that the server maintains a list of ‘**various application programs which are subject to resource manager 251.**’” *Id.* at 49 (citing Ex. 1006, 8:33–34, Abstract). Petitioner further contends that “[t]he server also maintains user profiles 252-253 . . . that list whether or not ‘**that user or group cannot execute the application program.**’” *Id.* (citing Ex. 1006, 8:36–41). According to Petitioner, “[t]herefore, ‘**individual application programs may internally configure their possible choices of such system resources according to the appropriate profile on a dynamic basis.**’” *Id.* at 51 (citing Ex. 1006, code (57)).

Petitioner further explains regarding Regnier:

Fig. 4 illustrates that client user profiles are updated in the resource manager and used to determine that a plurality of applications and resources are accessible for a given client. For instance, in Fig. 4, “a value 404 showing a status of that resource for that particular user when executing that particular application, and a change status 405 for the value 404.” In

reference to Fig. 3, *Regnier further explains that each time a user selects an application* (block 307), the server's resource manager determines, based on the user profiles (block 305), to *dynamically reconfigure the user device to use the desired functionality* (block 311).

Id. at 51–52 (citing Ex. 1006, 6:63–7:9, 8:8–10, 8:17–20; Ex. 1003 ¶¶ 153–157) (emphasis added).

We have construed “dynamically configurable” as “configurable when and as needed and in real time, without the need for user intervention,” and explained that “without the need for user intervention” means absent user command at the time of dynamic configuring. *See* Section II.C.2., *supra*. Based on that construction, we are not persuaded by Petitioner that Regnier dynamically configures its device from a first function to a second function, as Petitioner asserts. As explained by Petitioner, Regnier's device reconfigures its functionality in response to user selection of the desired application program, to provide the functionality corresponding to the user selected application program. Pet. 51–52.

Patent Owner notes that Petitioner's rationale “relies on manual, user-initiated conversions.” PO Resp. 36. Patent Owner explains:

Petitioners argue that Rautiola in view of Regnier “describes that the client device dynamically converts between functions by downloading a client portion of an application and converting between different application services that are allowed by a server on a dynamic basis and chosen dynamically by a user.” Pet. 48. These allegations combine two distinct parts: (1) providing a client portion of an application for download; and (2) determining whether to allow the client device to use a different application service each time the client requests converting from a first to second application. Ex. 2031, ¶74.

According to Petitioners' own arguments, *both* parts depend on *manual* user requests. For providing a client portion, the Petition states that “Regnier teaches that “client portion 291”

of the application is “downloaded from server 110 to terminal 130 *upon a request from the user.*” Pet. 49 (quoting Ex. 1006, 5:52-5:54) (emphasis added). The Petition also repeatedly acknowledges that a user request initiates Regnier’s process to determine whether to allow a client device to use an application. *Id.*, 49 (alleging that Regnier’s server maintains user profiles that determines whether *users* can execute applications), *id.*, 51-52 (alleging that “Regnier further explains that each time *a user selects an application . . .*”); *id.*, 53 (alleging the server’s resource manager allows “*users* to choose dynamically among shared resources”).

PO Resp. 36–37. Patent Owner further notes that Petitioner also cites to passages from Regnier that describe updating menu items in a spreadsheet for use by an application. *Id.* at 37 (citing Pet. 51). In that regard, Patent Owner explains:

However, the menu referenced in Regnier refers to a conventional menu for a software application that provides a list of choices for a user to select. Ex. 2031, ¶77. Conversion from one function to another function in this conventional menu system also requires a user to manually select an option from the menu. *Id.* As stated by Regnier, the dynamic menu management merely changes “the list of facilities which [the menu] presents to the user.” Ex. 1006, 7:66-8:3. It is up to the user to pick an option from a menu. *Id.*

In sum, Petitioners’ theory involves the user requesting to download a client application, Pet. 49, and the user selecting applications, Pet. 51–52.

Id. at 37–38.

We agree with Patent Owner. Even in its Reply, Petitioner acknowledges that “[Regnier’s] device can dynamically convert between functions *as users choose dynamically between available shared system resources*, such as database or email applications.” Reply 18 (emphasis added). Petitioner’s arguments and evidence do not persuade us that Regnier’s device is dynamically configurable from a first function to a

second function, as limitation [1.8] requires, because the limitation, when properly construed, requires “without the need for user intervention,” i.e., without user command at the time of dynamic configuring.

In its Reply, Petitioner presents a new rationale as to how limitation [1.8] is met by the applied prior art, that no longer depends on the teachings of Regnier. Reply 21. Specifically, Petitioner asserts:

A POSITA would have understood that conversion between functions described in Rautiola could occur without the need for user intervention. Ex. 1066, ¶29. For instance, Rautiola’s laptop performs “voice mail and e-mail services.” Ex. 1005, 4:30–34. A [person of ordinary skill in the art] would have understood that, while the laptop is using an e-mail function, it would convert to a telephony function without user intervention when an incoming phone call or voice mail is detected or received. *See* Ex. 1005, 4:30–34.

Id. The argument appears for the first time in Petitioner’s Reply is therefore untimely and inappropriate. We decline to consider it.

“Petitioner may not submit new evidence or argument in reply that it could have presented earlier, e.g., to make out a *prima facie* case of unpatentability.” PTAB Consolidated Trial Practice Guide November 2019 (CTPG),¹⁴ 73–74. Although a reply may respond to arguments raised in the PO Response, “‘Respond,’ in the context of 37 C.F.R. § 42.23(b), does not mean proceed in a new direction with a new approach as compared to the positions taken in a prior filing.” *Id.* at 74. By adding a theory as to how limitation [1.8] is met, relying primarily, if not exclusively, on Rautiola, where the rationale presented in the Petition was based essentially on Regnier, Petitioner has proceeded in an impermissible new direction.

¹⁴ Available at <https://www.uspto.gov/sites/default/files/documents/tpgnovpdf>.

“[A] reply may be proper if it is responsive and simply expands on previously raised arguments.” *Rembrandt Diagnostics, LP v. Alere, Inc.*, 76 F.4th 1376, 1384 (Fed. Cir. 2023). Petitioner’s above-noted assertion in the Reply is not an expansion of arguments previously raised in the Petition, but altogether new and meaningfully distinct from what was previously presented, and thus inappropriate. *See also Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1370 (Fed. Cir. 2016) (“[W]e find that the Board did not err in refusing the reply brief as improper under 37 C.F.R. § 42.23(b) because [Petitioner] relied on an entirely new rationale to explain why one of skill in the art would have been motivated to combine Tsien or Ju with a modification of Zavgorodny.”).

Even if we were to consider the new argument, Petitioner’s assertion is not supported by the cited disclosure of Rautiola, which merely states: “Usually the local area network has advantageously one or more servers which take care of certain functions related to the distribution of resources, such as the database service and voice mail and email services.” Ex. 1005, 4:30–34. The disclosure pertains to a mobile device accessing stored email, voice mail, and other information through the servers in the office local area network, not converting a mobile device between a cellular phone, a cordless phone, and/or a laptop computer. Petitioner has not shown the device has to be reconfigured to access different types of stored information, e.g., voice mail as opposed to email.

Dr. Kotzin’s testimony in support of Petitioner’s new argument cites to the same portion of Rautiola and reads as follows:

A [person of ordinary skill in the art] would have understood that conversion between functions described in Rautiola could occur without the need for user intervention. For instance, Rautiola’s laptop performs “voice mail and e-mail

services.” Ex. 1005, 4:30–34. A [person of ordinary skill in the art] would have understood that, while the laptop is using an e-mail function, it would convert to a telephony function without user intervention when an incoming phone call or voice mail is detected or received. *See* Ex. 1005, 4:30–34.

Ex. 1066 ¶ 29. As noted above, the cited disclosure of Rautiola does not support the assertion, and Dr. Kotzin also has not explained why the device has to be reconfigured to access different types of stored information, e.g., voice mail as opposed to email. Further, Dr. Kotzin does not explain how Rautiola discloses that voice mails are given preference over emails such that an incoming voice mail would be accessed automatically and played when the user is interacting with the email service, e.g., composing or reading an email. Other than the citation to column 4, lines 30–34 of Rautiola, which does not support the stated opinion, Dr. Kotzin’s testimony in Paragraph 29 of his Reply Declaration (Ex. 1066) is merely conclusory. We accord it little weight. *See Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15–17 (PTAB Aug. 24, 2022) (precedential) (according “little weight” to declaration testimony that contains a verbatim restatement of a petition’s conclusory assertions without additional supporting evidence or reasoning).

Thus, even if we consider Petitioner’s new argument in the Reply, Petitioner still has not shown that limitation [1.8] is adequately accounted for by the applied prior art.

j) *Limitation [1.9]*

Petitioner contends that Rautiola teaches “implementing the office LAN using ‘**TCP/IP [Transmission Control Protocol/Internet Protocol]**’ and a gateway for the LAN to ‘**connect[] to the outside world.**” Pet. 54 (citing Ex. 1005, 6:11–15, 4:11–15). Figure 2 “illustrates laptop terminal 9

configured to connect to the office LAN, which uses IP (Internet Protocol) and connects to the outside world (*‘Internet access’*).” *Id.* (citing Ex. 1005, 6:11–15, 4:11–15; Ex. 1003 ¶¶ 164–165).

Patent Owner does not dispute these contentions of Petitioner.

k) Conclusion

Petitioner has not proven by a preponderance of the evidence that claim 1 of the ’981 patent would have been obvious over Rautiola, Regnier, and Sainton.

6. Dependent Claims 8–11, 13, 15, 17, and 19

Each of claims 8–11, 13, 15, 17, and 19 depends directly from claim 1. Ex. 1001, 10:9–46. Therefore, each of claims 8–11, 13, 15, 17, and 19 incorporates all of the limitations of claim 1. The Petition’s deficiencies in analyzing the applied prior art, as applied to claim 1 and discussed above, equally apply to claims 8–11, 13, 15, 17, and 19. Accordingly, Petitioner has not proven by a preponderance of the evidence that any of claims 8–11, 13, 15, 17, and 19 would have been obvious over Rautiola, Regnier, and Sainton.

F. Alleged Obviousness of Claims 1, 8, 9, 11, 13, 17, and 19 over Grube and Gillig¹⁵

1. Overview of Grube (Ex. 1011)

Grube is entitled “Personal Communications Device Having Remote Control Capability.” Ex. 1011, code (54). Grube’s communication device 100 (e.g., a phone) sends and receives telephonic communications according

¹⁵ Patent Owner asserts that neither Grube nor Gillig constitutes analogous art. PO Resp. 48. Even assuming both Grube and Gillig are analogous art, we determine, as explained below, that Petitioner has not proven any claim to be unpatentable. Thus, we need not address Patent Owner’s non-analogous art assertion for Grube and Gillig.

to “well understood prior art technique[s].” *Id.* at 4:1–3, 4:27–28. A remote site database stores information pertinent to the device’s remote-control functions. *Id.* at 4:38–46. Grube’s device can access the database via a public switched telephone network using “well understood prior art technique[s].” *Id.* at 4:58–62. To acquire relevant remote control information (e.g., code to control a TV remotely) from the database, (1) the user dials an appropriate telephone number using Grube’s device, (2) the device connects to the database “[f]ollowing whatever appropriate handshake mechanism may be employed,” and (3) the device wirelessly receives the desired remote-control information. *Id.* at 4:66–5:23. Once the remote-control information is received, Grube’s device can, for example, simultaneously function as a cell phone and a television remote control. *Id.*

2. Overview of Gillig (*Ex. 1012*)

Gillig is entitled “Cellular Cordless Telephone.” *Ex. 1012*, code (54). Gillig relates “particularly to an improved cellular cordless telephone for providing both cellular and cordless telephone services.” *Id.* at 1:7–9.

Figure 1 of Gillig is reproduced below:

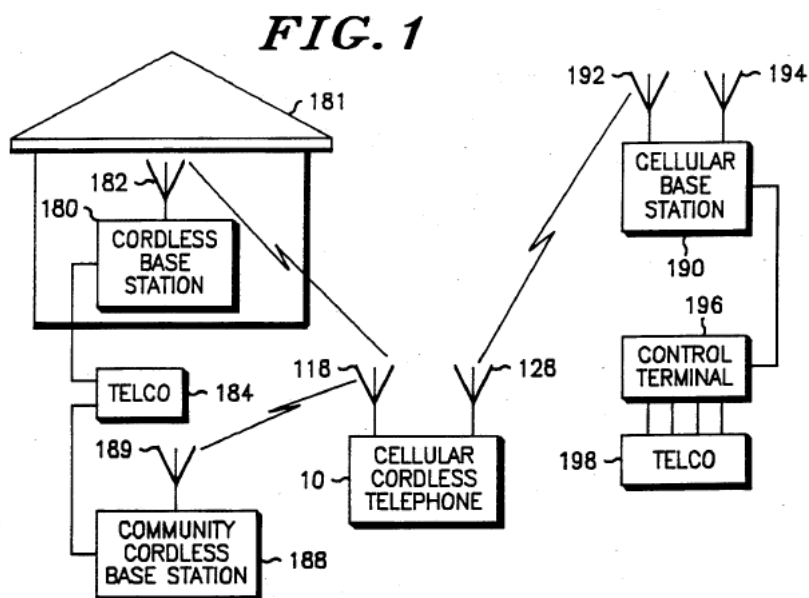


Figure 1 is a block diagram of Gillig's cellular cordless telephone system. *Id.* at 1:42–43, 2:8–10. Gillig's system includes cordless base stations 180, 188 connected to telephone company phone system (“TELCO”) 184. *Id.* at 2:10–16. Cordless base station 180, 188 each have antenna 182, 189, respectively, for communicating with cellular cordless telephone (“CCT”) 10. *Id.* at 2:16–18. Cellular base station 190 is connected to cellular control terminal 196 that is also connected to TELCO 198. *Id.* at 2:32–36. Cellular base station 190 has receive antenna 192 and transmit antenna 194 for communicating with CCT 10. *Id.* at 2:37–40. CCT 10 includes antenna 118 for cordless radio channels and antenna 128 for cellular radio channels. *Id.* at 2:44–47. Figure 2 of Gillig is reproduced below:

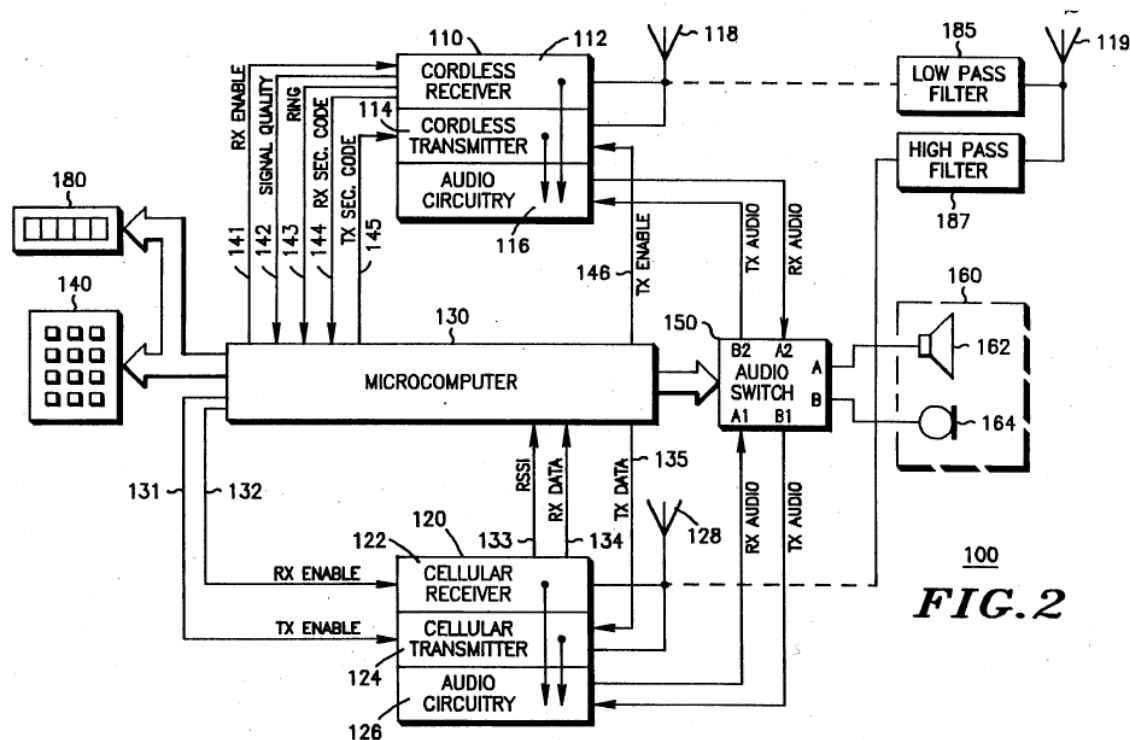


Figure 2 is a block diagram of CCT 100. *Id.* at 1:44–45, 2:52–54. CCT 100 includes antenna 118, antenna 128, cordless transceiver 110, cellular transceiver 120, microcomputer 130, and other components. *Id.*

at 2:54–58. Microcomputer 130 is programmed to operate in accordance with flowcharts shown in Figures 4–8 for operating as a cellular telephone, a cordless telephone, or a cellular cordless telephone. *Id.* at 3:32–35. When operating as a cellular telephone, cellular receiver 122 and cellular transmitter 124 of cellular transceiver 120 are enabled. *Id.* at 3:38–41. When operating as a cordless telephone, cordless receiver 112 and cordless transmitter 114 are enabled. *Id.* at 3:47–50.

3. *Independent Claim 1*

a) *Preamble [1.0]*

Claim 1 in its preamble recites: “A wireless communication system.” Ex. 1001, 9:20. Petitioner contends that “Grube teaches a ‘*wireless communication system*’ because it teaches ‘**wireless platforms** . . . including trunked or conventional land mobile radios (particularly those supporting telephone interconnect)’ and ‘cordless telephones.’” Pet. 78 (citing Ex. 1011, 4:4–7). Patent Owner does not dispute these contentions.

b) *Limitation [1.1]*

Claim 1 in limitation [1.1] recites: “a wireless device which supports voice and data communications.” Ex. 1001, 9:21–22. Petitioner contends that “Grube teaches a ‘personal communications device (100) can be utilized to facilitate a variety of two-way communications, including **both voice and data communications, and to also source one-way remote control signalling**.’” Pet. 79 (quoting Ex. 1011, 3:14–18). Patent Owner does not dispute these contentions.

c) *Limitation [1.2]*

Claim 1 in limitation [1.2] recites: “a server.” Ex. 1001, 9:23. Petitioner contends that “[i]n Grube’s system, the personal communications device communicates with a ‘**remote site data base**’ (‘server’).” Pet. 79–80

(citing Ex. 1011, 5:9–10). According to Petitioner, “[t]he remote site data base 300 includes a ‘computer (301)’ and ‘data base (302)’ which ‘contains pertinent information regarding remote control signaling for one or more products or devices.’” *Id.* at 80 (citing Ex. 1011, 4:39–46). Patent Owner does not dispute these contentions.

d) Limitation [1.3]

Claim 1 in limitation [1.3] recites: “a memory, wherein a processor is communicatively coupled with the memory.” Ex. 1001, 9:24–25. Grube “teaches that the personal communications device includes a ‘**processing unit (201)**’ such as a ‘**microprocessor device**’ (*‘processor’*).” Pet. 81 (citing Ex. 1011, 3:22–24). According to Petitioner, “[t]he ‘processing unit (201) couples to a plurality of memory devices, including an EEPROM (202), a ROM (203), and a RAM (204)’ (*‘a processor is communicatively coupled with the memory’*).” *Id.* at 82 (citing Ex. 1011, 3:29–31); *see id.* (citing Ex. 1003 ¶¶ 229–231). Patent Owner does not dispute these contentions.

e) Limitation [1.4]

Claim 1 in limitation [1.4] recites: “wherein the memory stores functional instructions including instructions for use in providing a plurality of functions to the wireless device.” Ex. 1001, 9:26–28.

Petitioner contends that “Grube teaches that the memory stores ‘**operating program and utilities ordinarily accessed during use by the processing unit,**’ including content used during operation of the personal communications device (*‘the memory stores functional instructions’*).” Pet. 84 (citing Ex. 1011, 3:30–36). Petitioner further contends that “Grube further teaches that the ‘**personal communications device (100) can receive and store pertinent remote control information**’ (*‘the memory*

stores functional instructions’) downloaded from the remote site database.”
Id. (citing Ex. 1011, 4:33–35, 5:25–30).

Petitioner also contends that Grube’s “remote control information downloaded from the data base includes ‘information regarding remote control signalling for one or more products or devices. Such information could include, but is not limited to, **carrier frequency, signalling protocol, modulation type, operational codes, operational code aliases**[.]’” *Id.* (citing Ex. 1011, 4:41–46) (alteration by Petitioner). According to Petitioner, “Grube explains that the personal communications device can ‘retain remote control information for [a user’s] first and second televisions, a video cassette recorder, a stereo system, and a garage door opener.’” *Id.* (quoting Ex. 1011, 5:53–56). Petitioner also contends that

“[T]he user can select a particular device to be controlled,” with each device having an associated “remote control data set” stored in the personal communication device’s memory. Upon selecting a device to be controlled, “the personal communications device retrieves the corresponding information and displays **information regarding available functions to the user.**”

Id. at 84–85 (citing Ex. 1011, 5:57–61; Ex. 1003 ¶¶ 232–236).

Patent Owner does not dispute these contentions of Petitioner.

f) Limitation [1.5]

Claim 1 in limitation [1.5] recites: “at least one of the functional instructions provided for switching between one or more networks including at least one public network.” Ex. 1001. 9:28–30.

Petitioner contends that “Grube teaches that the personal communications device stores in memory various ‘functional instructions,’ including ‘**operating program and utilities**’ used during device operation.” Pet. 85 (citing Ex. 1011, 3:30–41). Petitioner further contends that “Grube

teaches that the personal communications device's operations include accessing the remote site data base using both conventional land mobile or cellular network ('*at least one public network*') and cordless telephone networks: '**A variety of [] wireless platforms could be utilized in this context, including trunked or conventional land mobile radios [and] cordless telephones.**'" *Id.* (quoting Ex. 1011, 4:3–7) (emphasis omitted) (alterations by Petitioner). Petitioner alternatively contends

Gillig teaches that one example of "*functional instructions*" stored on a similar device that connects to cellular and cordless telephone networks includes instructions for switching between networks.

Gillig teaches a "cellular cordless telephone" (CCT) that "operates with both a cordless base station (180) and a cellular base station (190)." Gillig describes the CCT storing instructions including "**the process used by the CCTs [] for automatically transferring between a cellular telephone call and a cordless telephone call**" based on whether the cordless and cellular base stations are "within range."

...

Gillig also describes the CCT storing a process or instructions for "receiving a telephone call as a cellular telephone call or a cordless telephone call according to user selectable preference" ("*functional instructions provided for switching between one or more networks*"). The stored user preference is "determined by polling stored information in the memory associated with the CCT microcomputer."

Id. at 86–88 (citing Ex. 1012, Abstract, Figs. 6, 8, 5:34–37, 6:2–4, 7:19–21; Ex. 1003 ¶¶ 237–246, 300).¹⁶

Patent Owner does not dispute these contentions of Petitioner.

¹⁶ There is no paragraph 300 in Ex. 1003.

g) Limitation [1.6]

Claim 1 in limitation [1.6] recites: “wherein the memory further stores a plurality of communication protocols, that facilitate communication between the server and the wireless device.” Ex. 1001, 9:31–33.

Petitioner contends that Grube’s “‘**personal communications device (100) can access the computer (301) and its associated data base (302)**’ in ‘**a variety of ways, including through cordless base stations [and] cellular base stations.**’” Pet. 89 (citing Ex. 1011, 4:54–61) (alteration by Petitioner). According to Petitioner, “[t]he personal communications devices uses programs and session data stored in memory devices to facilitate communication: ‘ROM (203) would store the operating program and utilities ordinarily accessed during use by the processing unit (201),’ and ‘RAM (204) would be utilized during operation of the personal communications device (100) for retention of session data.’” *Id.* (quoting Ex. 1011, 3:30–36).

Petitioner further contends that “Gillig further describes a CCT including ‘**microcomputer 130 [that] is programmed . . . for operating as a cellular telephone [and] a cordless telephone.**’” *Id.* at 89 (quoting Ex. 1012, 3:32–35) (alterations by Petitioner). Petitioner also contends that “the CCT stores a ‘process which redirects a call from the dialed cellular telephone number of CCT 10 to the landline telephone number of cordless base station 180.’” *Id.* at 89–90 (quoting Ex. 1012, 5:68–6:2); *see id.* at 90 (citing Ex. 1003 ¶¶ 247–251).

Patent Owner does not dispute these contentions of Petitioner.

h) Limitation [1.7]

Claim 1 in limitation [1.7] recites: “wherein the server is configured to send to the wireless device a plurality of functions.” Ex. 1001, 9:33–35.

Petitioner contends that Grube’s “personal communications device performs ‘**downloading of remote control signalling information**’ from a remote site data base in order to ‘receive and store pertinent remote control information.’” Pet. 90–91 (citing Ex. 1011, Abstract, 4:33–35). According to Petitioner, “[t]he downloaded information includes ‘carrier frequency, signalling protocol’ and ‘remote control functions’ for ‘a variety of models’ of televisions and/or VCRs.” *Id.* at 91 (citing Ex. 1011, 4:41–46, 5:54–61; Ex. 1003 ¶¶ 252–253). Petitioner contends that, therefore, “Grube’s remote site data base that stores and sends remote control signalling information for a variety of devices (TVs, VCRs) for download by a wireless device discloses ‘*wherein the server is configured to send to the wireless device a plurality of functions.*’” *Id.*

Patent Owner does not dispute these contentions of Petitioner.

i) *Limitation [1.8]*

Claim 1 in limitation [1.8] recites: “wherein the wireless device is dynamically configurable from a first function to a second function to enable a plurality of functions at the wireless device.” Ex. 1001, 9:35–38.

Petitioner asserts the following:

Grube teaches that, “to acquire relevant information regarding remote control signaling for a particular product or device, the user dials an appropriate telephone number . . . of the appropriate remote site data base” to “allow down loading of remote control signalling information.” Ex. 1011, Abstract, 4:66–5:2.

To utilize information downloaded from the remote site database, Grube’s personal communications device includes a “**programmable platform** that may be programmed in accordance with the requirements set forth below to operate advantageously in accordance with the invention.” Ex. 1011, 3:25–29. For instance, “depending upon the quantity of memory

provided, a large number of remote control signalling information sets can be [] obtained” from the remote site data base (server) in order to control a new home device. Ex. 1011, 5:40–46. The server thereby enables the personal communications device to “readily learn remote control data sets for new products,” which “will facilitate remote control activities with a minimum of inconvenience or delay.” Ex. 1011, 6:18–21.

Pet. 91–92 (alteration in original).

Petitioner contends that Grube’s “personal communications device can thus be programmed—from information downloaded from the remote site data base—for ‘**remote control functions**’ for multiple home devices (*e.g.*, TVs, VCR).” Pet. 92 (citing Ex. 1011, 5:54–65). According to Petitioner, “[t]he downloaded ‘**information regarding remote control signalling**’ also includes ‘**carrier frequency, signalling protocol**’ information, allowing the personal communications device to dynamically convert from, *e.g.*, a TV remote control (*‘first function’*) to a VCR remote control (*‘second function’*).” *Id.* (citing Ex. 1011, 4:43–46; Ex. 1003 ¶¶ 254–257).

Patent Owner argues that “the alleged conversion relied on by Petitioner requires user intervention for execution.” PO Resp. 49 (citing Ex. 1011, 5:50–58). We agree with Patent Owner. Grube describes:

To begin with, the user selects a particular remote control information set (501). For example, if a user has programmed the personal communications device (100) as described above to retain remote control information for his first and second televisions, a video cassette recorder, a stereo system, and a garage door opener, a selection menu can be provided on the display (102) from which the user can select a particular device to be controlled. Upon selecting an appropriate remote control data set, the personal communications device retrieves the corresponding information and displays information regarding available functions to the user (502).

Ex. 1011, 5:50–62.

We have construed “dynamically configurable” as “configurable when and as needed and in real time, without the need for user intervention,” and explained that “without the need for user intervention” means absent user command at the time of dynamic configuring. *See* Section II.C.2., *supra*. Based on that construction, we are not persuaded by Petitioner that Grube dynamically configures its device from a first function to a second function, as Petitioner asserts. As reflected in the above-quoted disclosure of Grube, the user has to select the remote control data set that corresponds to the desired device to be controlled. Ex. 1011, 5:50–62.

In its Reply, Petitioner presents new rationales as to how limitation [1.8] is met by the applied prior art, that no longer depends on how Grube’s device is made to provide remote control of various different apparatuses such as televisions, video cassette recorders, and garage doors. Instead, Petitioner newly relies on alleged prior art disclosure of a portable device convertible between use as a cellular telephone and use as a cordless telephone, and alleged prior art disclosure of a portable device convertible between use as a television remote controller and use as a cordless telephone handset. Reply 25–26. Petitioner also newly relies on the teachings of Gillig to account for limitation [1.8] where the Petition previously relied on only the teachings of Grube. Specifically, Petitioner newly asserts:

First, Grube and Gillig render obvious conversion responsive to variable conditions in describing a wireless device that can convert between various functions—such as a cellular telephone, to a television remote controller, to a cellular telephone—responsive to where the user is located. Ex. 1066, ¶¶ 34–35. For instance, Grube in view of Gillig teaches that the wireless device can convert from a cellular telephone function to a cordless telephone function based on proximity to the cellular

and cordless base stations (i.e., responsive to variable conditions). Ex. 1011, 4:3–7, 4:54–61; Ex. 1012, Abstract, Fig.8, 7:19–21.

Second, A [person of ordinary skill in the art] would have understood that conversion between functions described in Grube could occur without user intervention. Ex. 1066, ¶ 36. A [person of ordinary skill in the art] would have understood that, while Grube’s personal communications device is being used as a television remote controller, it would convert to a cordless telephone handset function, such as by ringing or notifying of a voice message, when an incoming phone call is detected or received automatically by the personal communications device (*i.e.*, without user intervention). Ex. 1011, Abstract, 4:43–46, 4:66–5:2, 5:40–46, 5:54–65, 6:18–21.

Id. These new arguments are untimely and therefore inappropriate. We decline to consider them.

“Petitioner may not submit new evidence or argument in reply that it could have presented earlier, e.g., to make out a *prima facie* case of unpatentability.” PTAB Consolidated Trial Practice Guide November 2019 (CTPG), 73–74. Although a reply may respond to arguments raised in the PO Response, “‘Respond,’ in the context of 37 C.F.R. § 42.23(b), does not mean proceed in a new direction with a new approach as compared to the positions taken in a prior filing.” *Id.* at 74. By adding new theories as to how limitation [1.8] is met, such as in alleged conversion between use as cordless phone and use as cellular phone, and in alleged conversion between use as a remote controller and use as a cordless phone, Petitioner has proceeded in its Reply in an impermissible new direction. Also, by relying on teachings of Gillig, e.g., Ex. 1012, 7:19–21, where it previously relied only on Grube for limitation [1.8], Petitioner has proceeded in its Reply in an impermissible new direction.

“[A] reply may be proper if it is responsive and simply expands on previously raised arguments.” *Rembrandt Diagnostics, LP*, 76 F.4th at 1384. Petitioner’s above-noted assertions in the Reply is not an expansion of arguments previously raised in the Petition, but altogether new and meaningfully distinct from what was previously presented, and thus inappropriate. *See also Intelligent Bio-Systems, Inc.*, 821 F.3d at 1370 (“[W]e find that the Board did not err in refusing the reply brief as improper under 37 C.F.R. § 42.23(b) because [Petitioner] relied on an entirely new rationale to explain why one of skill in the art would have been motivated to combine Tsien or Ju with a modification of Zavgorodny.”).

Even if we were to consider the new rationales, Petitioner’s assertions are not supported by the cited disclosure of Grube, i.e., Ex. 1011, code (57), 4:3–7, 4:43–46, 4:54–61, 4:66–5:2, 5:40–46, 5:54–65, 6:18–21). None of these cited portion of Grube comes close to conveying that there is conversion, without user intervention, between using the device as a remote controller and as a cordless phone, or between using the device as a cordless phone and as a cellular phone. As for the newly proposed manner of combining Grube and Gillig, Petitioner in its Reply did not discuss motivation to combine or reasonable expectation of success.

Dr. Kotzin’s testimony in support of Petitioner’s new argument cites to the same portion of Grube and reads as follows:

Second, a [person of ordinary skill in the art] would have understood that conversion between functions described in Grube could occur without user intervention. A [person of ordinary skill in the art] would have understood that, while Grube’s personal communications device is being used as a television remote controller, it would convert to a cordless telephone handset function, such as by ringing or notifying of a voice message, when an incoming phone call is detected or

received automatically by the personal communications device (i.e., without user intervention). Ex. 1011, Abstract. 4:43–46, 4:66–5:2, 5:40–46, 5:54–65, 6:18–21.

Ex. 1066 ¶ 36. As noted above, the cited disclosure of Grube does not support the assertion. Dr. Kotzin cites to nothing else and provides no other explanation for his conclusion. We do not credit the above-quoted testimony of Dr. Kotzin, and Petitioner’s new theories relying on that testimony of Dr. Kotzin are unpersuasive.

Thus, even if we consider Petitioner’s impermissible new arguments in the Reply, Petitioner still has not shown that limitation [1.8] is adequately accounted for by the applied prior art.

j) *Limitation [1.9]*

Petitioner contends that “Grube teaches a personal communications device that is configured to use a public cellular network, and [that] it was well known that public cellular networks include GSM networks, which are configured for communicating Internet Protocol (IP) data and connect to devices on the Internet.” Pet. 93 (citing Ex. 1003 ¶¶ 163, 258 (quoting Ex. 1040, 9:52–58; Ex. 1041, 9:26–28)). Petitioner further contends that “it was well known that a mobile station connected to a GSM network, similar to Grube’s personal communications device, would be configured to communicate with networked devices using Internet protocol (*‘configured for Internet access’*).” *Id.* (citing Ex. 1003 ¶¶ 164, 258–260 (quoting Ex. 1046, 7:58–8:20 (“The basic packet data network service provided is a standard connectionless network (datagram) service based on a standard connectionless IP protocol . . . The protocol architecture is . . . an example of communication between an [mobile station] MS and a fixed station (FS), e.g. a host computer, attached to an external IP network. . . . An MS is

identified, on layer 3 with an IP address, and on layer 2 with standard GSM identities.’’)).

Patent Owner asserts that the Grube-Gillig combination does not sufficiently account for limitation [1.9]. PO Resp, 52–59. We do not, however, need to resolve the dispute regarding limitation [1.9] because, as discussed above, Petitioner has not adequately accounted for limitation [1.8].

k) Conclusion

Petitioner has not proven by a preponderance of the evidence that claim 1 of the ’981 patent would have been obvious over Grube and Gillig.

4. Dependent Claims 8, 9, 11, 13, 17, and 19

Each of claims 8, 9, 11, 13, 17, and 19 depends directly from claim 1. Ex. 1001, 10:9–46. Therefore, each of claims 8, 9, 11, 13, 17, and 19 incorporates all of the limitations of claim 1. The Petition’s deficiencies in analyzing the applied prior art, as applied to claim 1 and discussed above, equally apply to claims 8, 9, 11, 13, 17, and 19. Accordingly, Petitioner has not proven by a preponderance of the evidence that any of claims 8, 9, 11, 13, 17, and 19 would have been obvious over Grube and Gillig.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has not proven by a preponderance of the evidence that any of claims 1, 8–11, 13, 15, 17, and 19 of the ’936 patent is unpatentable; and

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

In summary:

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1, 8–11, 13, 15, 17, 19	103	Rautiola, Regnier, and Sainton		1, 8–11, 13, 15, 17, 19
1, 8, 9, 11, 13, 17, 19	103	Grube and Gillig		1, 8, 9, 11, 13, 17, 19
Overall Outcome				1, 8–11, 13, 15, 17, 19

IPR2022-00981
Patent 8,472,936 B1

FOR PETITIONER:

Andrew S. Ehmke
Samuel Drezdson
Adam C. Fowles
HAYNES & BOONE, LLP
andy.ehmke.ipr@haynesboone.com
samuel.drezdson.ipr@haynesboone.com
adam.fowles.ipr@haynesboone.com

W. Karel Renner
Jeremy J. Monaldo
Ayan Roy-Chowdhury
FISH & RICHARDSON P.C.
axf-ptab@fr.com
jjm2fr.com
roy-chowdhury@fr.com

FOR PATENT OWNER:

Rex Hwang
Todd Martin
SKIERMONT DERBY LLP
rhwang@skiermontderby.com
tmartin@skiermontderby.com

Philip J. Graves
Greer N. Shaw
GRAVES & SHAW LLP
pgraves@gravesshaw.com
gshaw@gravesshaw.com