

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

CORE WIRELESS LICENSING S.A.R.L.,
Patent Owner.

Case IPR2015-01899
Patent 8,713,476 B2

Before JAMESON LEE, DAVID C. McKONE, and
KEVIN W. CHERRY, *Administrative Patent Judges*.

CHERRY, *Administrative Patent Judge*.

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

Apple Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1, 4, 7–9, 20, 28, and 29 of U.S. Patent No. 8,713,476 B2 (Ex. 1001, “the ’476 patent”). Paper 2 (“Petition” or “Pet.”). Pursuant to 35 U.S.C. § 314(a), we determined the Petition showed a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of

claims 1, 4, 7–9, 10, 20, 28, and 29, and we instituted an *inter partes* review of these claims on certain asserted grounds of unpatentability. Paper 7 (“Inst. Dec.”). Patent Owner Core Wireless Licensing S.A.R.L. (“Patent Owner”) filed a Patent Owner Response. Paper 18 (“PO Resp.”). Petitioner filed a Reply to Patent Owner’s Response. Paper 27 (“Reply”). An oral hearing was held on December 14, 2016, pursuant to requests by both parties. Paper 38 (“Tr.”); see Papers 31, 34, 35.

We issue this Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine Petitioner has proven by a preponderance of the evidence that claims 1, 4, 7–9, 20, 28, and 29 of the ’476 patent are unpatentable. See 35 U.S.C. § 316(e).

I. BACKGROUND

A. RELATED PROCEEDINGS

According to Petitioner and Patent Owner, the ’476 patent is involved in, at least, the following lawsuits: *Core Wireless Licensing S.A.R.L. v. Apple, Inc.*, No. 6:14-cv-00751 (E.D. Tex.), and *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, No. 2:14-cv-00911 (E.D. Tex.). Pet. 5–6; Paper 5, 2. The ’476 patent is also the subject of IPR2015-01985. Paper 5, 2. A related patent, U.S. Patent No. 8,434,020, is at issue in IPR2015-01898 and IPR2015-01984.

B. THE ’476 PATENT

The ’476 patent relates to a computing device with an improved user interface for applications. Ex. 1001, 1:23–24. The ’476 patent describes a “snap-shot” view of an application that brings together, in one summary window, a limited list of common functions and commonly accessed stored

data. *Id.* at 2:37–41. Preferably, where the summary window for a given application shows data or a function of interest, the user can select that data or function directly, which causes the application to open and the user to be presented with a screen in which the data or function of interest is prominent. *Id.* at 2:42–46. The '476 patent explains that this summary window functionality saves the user from navigating to the required application, opening it up, and then navigating within that application to enable the data of interest to be seen or a function of interest to be activated. *Id.* at 2:46–50. Figure 2 of the '476 patent is reproduced below.

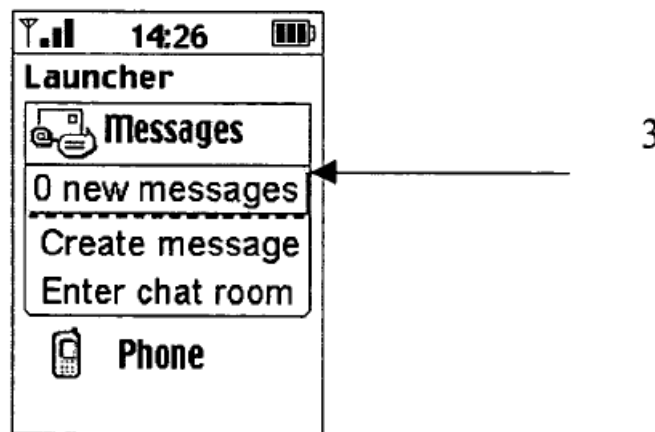


Figure 2

Figure 2, reproduced above, illustrates an implementation of the summary window (at 3) of the '476 patent. Ex. 1001, 3:42–43.

C. ILLUSTRATIVE CLAIM

Claim 1, a device claim, and claim 20, a method claim, are the only independent claims of the '476 patent that are challenged here. Claims 4 and 7–9 depend directly from claim 1 and claims 28 and 29 depend directly

from claim 20. Claim 1 is illustrative of the subject matter in this proceeding, and is reproduced below (formatting added).

1. A computing device comprising a display screen,
the computing device being configured to display on the screen a menu listing one or more applications, and
additionally being configured to display on the screen an application summary that can be reached directly from the menu,
wherein the application summary displays a limited list of data offered within the one or more applications,
each of the data in the list being selectable to launch the respective application and enable the selected data to be seen within the respective application, and
wherein the application summary is displayed while the one or more applications are in an unlaunched state.

Id. at 5:59–6:3.

D. EVIDENCE RELIED UPON

Petitioner relies upon the following prior art references.

Schnarel	US 7,225,409 B1	May 29, 2007 ¹	Ex. 1004
Aberg	US 6,993,362 B1	Jan. 31, 2006 ²	Ex. 1005
Smith	US 6,333,973 B1	Dec. 25, 2001 ³	Ex. 1006
Nason	US 6,593,945 B1	July 15, 2003 ⁴	Ex. 1007

¹ Schnarel was filed August 25, 1999.

² Aberg was filed March 13, 2000.

³ Smith was filed April 23, 1997.

⁴ Nason was filed May 19, 2000.

Wagner US 6,256,516 B1 July 3, 2001⁵ Ex. 1010

Petitioner also relies upon the Declaration of Dr. Brad A. Myers, dated September 11, 2015. Ex. 1003. Petitioner also relies on the Rebuttal Declaration of Dr. Brad A. Myers, dated October 17, 2016. Ex. 1038.

Patent Owner relies on the Declaration of Scott A. Denning, dated July 15, 2016. Ex. 2011.

Patent Owner also submitted observations on cross examination of Dr. Myers. See Paper 32. Petitioner submitted responsive observations. See Paper 36. We have considered both.

E. INSTITUTED GROUNDS OF UNPATENTABILITY

We instituted an *inter partes* review on the following grounds of unpatentability:

Reference(s)	Basis	Challenged Claim(s)
Schnarel ⁶	§ 103(a)	1, 4, 7–9, 20, 28, and 29
Schnarel and Aberg	§ 103(a)	1, 4, 7–9, 20, 28, and 29
Schnarel and Smith	§ 103(a)	4
Schnarel, Aberg, and Smith	§ 103(a)	4
Nason ⁷	§ 103(a)	1, 4, 7–9, 20, 28, and 29
Wagner and Nason	§ 103(a)	9

⁵ Wagner was filed September 24, 1999.

⁶ Petitioner includes “the knowledge of a POSITA [(person of skill in the art)]” in all of the Schnarel grounds. Pet. 13. Because an obviousness inquiry always includes the knowledge of person of ordinary skill, it is unnecessary to list explicitly such knowledge in the grounds.

⁷ As with Schnarel, Petitioner lists alternative grounds based on Nason that explicitly recite “the knowledge of a POSITA.” Pet. 37. For the reasons discussed in footnote 6, we do not list those alternative grounds separately.

II. ANALYSIS

A. CLAIM CONSTRUCTION

We interpret claims in an unexpired patent using the “broadest reasonable construction in light of the specification of the patent in which [they] appear[.]” 37 C.F.R. § 42.100(b). Under this standard, we presume a claim term carries its “ordinary and customary meaning,” which “is the meaning that the term would have to a person of ordinary skill in the art in question” at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). The presumption may be overcome by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993). Only those terms which are in controversy need be construed, and only to the extent necessary to resolve the controversy. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

1. “application”

The term “application” is found in independent claims 1 and 20. Patent Owner construes this term as requiring that “an ‘application’ exists in a particular software architecture having an operating system that can manage multiple executables (e.g., applications) and an application can be launched to access its associated functions and data.” PO Resp. 13–14 (citing Ex. 2011 ¶¶ 23, 29). Patent Owner’s construction, that there must be multiple threads of execution, relies on Mr. Denning’s interpretation of a discussion in the Specification where the ’476 patent describes that the App

Snapshot (the summary window) can be opened for the “Contacts” application while there is “an active Calendar application” and that the App Snapshot can include contact information relating to parties in the “previously or currently open Calendar application.” *Id.* at 15–16 (quoting Ex. 1001, 4:64–5:3). Patent Owner contends that these operations require multiple threads of execution so that the device can view the App Snapshot while another application is “currently open.” *Id.* at 15 (citing Ex. 2011 ¶ 13). Patent Owner submits that a person of ordinary skill in July 2000 would have understood that an “‘application’ referred to application-level architecture, with the application implemented on top of an operating system layer.” *Id.* at 16 (citing Ex. 2011 ¶¶ 23, 29). Patent Owner further argues that a person of ordinary skill “would have understood an ‘application’ to be packaged software for performing user functions, arranged in an application layer and able to access APIs of an operating system.” *Id.* (citing Ex. 2011 ¶¶ 10, 29).

Patent Owner also asserts that “an ‘application’ should be distinguished from the windows of the application.” *Id.* at 16–17. Patent Owner submits that “it is not correct to view the opening of a new window in a launched application as tantamount to launching an application.” *Id.* at 17. Patent Owner identifies extrinsic evidence—the testimony of Mr. Denning and a reference, Richards (US 6,781,611), relied on for a different issue during the prosecution of the ’476 patent’s parent—that it asserts supports this contention. *Id.* at 16–17 (citing Ex. 2011 ¶ 30; Ex. 2008, Abstract); Ex. 1018, 171, 180–81 (the prosecution history discussion of Richard).

Petitioner argues that no construction is necessary, but also that if the term is construed then its broadest reasonable interpretation is “a program or group of programs working together to provide access to functions and data.” Reply 1. Petitioner submits that this is consistent with the Specification of the ’476 patent, *id.* (citing Ex. 1001, 1:43–50, 2:34–36, 3:17–33, Fig. 1), and “relevant dictionaries and contemporaneous use,” *id.* (citing Ex. 1028; Ex. 1029, 1:40–47; Ex. 1030, 1:17–20; Ex. 1031, 4, 5). Petitioner submits that Patent Owner’s limitations are unsupported by the Specification and nothing in the Specification limits the term in this way. *Id.* at 2.

We agree with Petitioner that “application” should be construed as “a program or group of programs working together to provide access to functions and data.” We agree with Petitioner that this construction is consistent with the ordinary and customary meaning of the term, as evidenced by the dictionaries and extrinsic evidence submitted by Petitioner. *See* Ex. 1028, 5 (“**application** A program or group of programs designed for end users”) (PHILIP E. MARGOLIS, RANDOM HOUSE WEBSTER’S COMPUTER & INTERNET DICTIONARY 24 (3d ed. 1999)); Ex. 1029, 1:40–47 (“A web application is little more than a set of web pages that support different functionalities.”) (Kieffer, US 7,996,626 B2, filed Jan. 30, 2001); Ex. 1030, 1:17–20 (U.S. Provisional App. 60/180,378, filed Feb. 4, 2000 (provisional application for Kieffer)); Ex. 1031, 4 (“**application program**: Software that enables a computer to perform a set of related tasks for a specific purpose, such as . . . Web browsing.”), 5 (“**program** A set of coded instructions that direct a computer in performing a specific task”) (LON POOLE & TODD STAUFFER, MACWORLD MAC OS 9 BIBLE 842, 855 (1999)). We further agree

with Petitioner that this construction is consistent with the Specification's use of this term. *See* Ex. 1001, 1:43–50, 2:34–36, 3:17–33, Fig. 1.

As for Patent Owner's proposed construction, we do not agree with Patent Owner that the disclosure in the Specification amounts to a definition or disclaimer necessary to limit this term. *See GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309–10 (Fed. Cir. 2014). To begin with, we note that a number of the limitations that Patent Owner wishes to read into this claim—such as, “application level architecture,” “packaged software,” “application layers,” or “APIs”—are not discussed or mentioned in the Specification. As for Patent Owner's reliance on the description of an embodiment where two applications are open at once, *see* PO Resp. 15 (citing Ex. 1001, 4:64–5:3), that embodiment is described only as a “possible feature.” We do not find this optional feature sufficient to limit this disputed term. *See Ancora Techs., Inc. v. Apple, Inc.*, 744 F.3d 732, 735 (Fed. Cir. 2014) (noting that non-limiting examples are not sufficient to redefine a term). Indeed, this example repeatedly uses the word “may” to describe the features that Patent Owner relies upon to argue that the term must be limited, but this is precisely the type of tentative language that indicates that the inventors did not intend to require that the “applications” of the invention have these features. *See Prolitec, Inc. v. Scentair Techs., Inc.*, 807 F.3d 1353, 1358 (Fed. Cir. 2015) (noting that “the use of ‘may’ signifies that the inventors did not intend to limit [the claims to a particular feature]”).

As for Patent Owner's contentions that “launching an application” does not include opening a new window of a launched application, we are not persuaded that this limitation should be read into the definition of

“application.” Patent Owner identifies no support in the Specification or claims for this limitation. Instead, Patent Owner relies on the testimony of Mr. Denning and a reference relied on for other issues during the prosecution, Richard (Ex. 2008, U.S. Patent No. 6,781,611). We find that this extrinsic evidence is too vague to support reading this limitation into the term application given the lack of support in the Specification and claims.

Accordingly, we construe “application” to mean “a program or group of programs working together to provide access to functions and data.”

2. “function”

Patent Owner contends that term “function” should be construed as “an action to be activated in an application and performed by a user, and should not be interpreted as simply opening an application or a window of an application.” PO Resp. 19. Patent Owner identifies several examples of functions given in the Specification. *Id.* at 18 (citing Ex. 1001, 1:53 (“create a new contact entry”), 2:17–18 (“open an address book function”), 2:18 (“enter a PIN security number”), 2:18–19 (“alter the ring melody”), Figs. 2, 3, 3:44–46 (“Create Message” and “Enter chat room”)). Patent Owner argues that these examples demonstrate that “the ’476 patent consistently describes a ‘function’ as something more than simply opening a window or opening an application.” *Id.* at 18. Patent Owner asserts that the “the ’476 patent uses the term ‘function’ to refer to an action that a user is to perform within the corresponding application (e.g. create a new contact entry, perform an address book function, enter a PIN number, change a ring tone, create a message, or participate in a chat).” *Id.* at 19. Patent Owner further argues that “[t]he ’476 patent also describes functions as options that can be ‘activated.’” *Id.* (citing Ex. 1001, 2:47–50).

Petitioner responds that no construction is necessary and that, if we decide to construe the term, “function” should be given its ordinary meaning of “operation or command.” Reply 2–3. Petitioner asserts that the Specification confirms that “upon selection of a function the application summary window may ‘*display[] the relevant screen offering the relevant functionality*’ where the ‘function of interest is prominent.’” *Id.* at 3 (citing Ex. 1001, 2:46, 3:58–62). Petitioner submits that none of Patent Owner’s examples “defines or limits ‘function’ to exclude opening a window/displaying on a screen” and the ’476 patent does not “require second user action after initiating the function.” *Id.*

We agree with Petitioner that the Patent Owner is seeking to limit the term “function” improperly. To begin with, Patent Owner does not identify and we have not found a definition or disclaimer for the term “function” in the Specification. Furthermore, according to the *Random House Webster’s Computer & Internet Dictionary*, which was published in 1999, a “function” is “operation” or “command.” Ex. 1028, 6 (PHILIP E. MARGOLIS, RANDOM HOUSE WEBSTER’S COMPUTER & INTERNET DICTIONARY (1999)) (“The term *function* is also used synonymously with *operation* and *command*. For example, you execute the delete function to erase a word.” (emphasis added)). This meaning is consistent with the examples from the Specification that Patent Owner has identified. Ex. 1001, 1:53 (“create new a contact entry”), 2:17–18 (“open an address book function”), 2:18 (“enter a PIN security number”), 2:18–19 (“alter the ring melody”), Figs. 2, 3, 3:44–46 (“Create Message” and “Enter chat room”).

Patent Owner’s construction, on the other hand, would exclude the Specification’s disclosure that selecting a function offered in the application

summary can cause a window to open displaying the relevant functionality. *See* Ex. 1001, 2:46, 3:58–62 (noting the device may “display[] the relevant screen offering the relevant functionality” where the “function of interest is prominent”). Thus, we agree with Petitioner that the broadest reasonable interpretation of “function” is “operation or command.”

3. “*reached directly from the menu*”

Both independent claims 1 and 20 recite “an application summary that can be reached directly from the menu.” Ex. 1001, 5:62–63, 7:13–14. In its discussion of claim construction, Patent Owner does not offer an explicit construction. *See* PO Resp. 12–20. However, Patent Owner does state that although the District Court’s constructions in its lawsuit against LG Electronics, Inc., are based on the standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), they are “consistent with the ’476 patent.” PO Resp. 12–13. Patent Owner contends that the District Court construed “reached directly” as “reached without an intervening step.” *Id.* at 13 (citing Ex. 2004, 23).

However, Patent Owner additionally contends that in order to be considered “reached directly from the menu” a person of ordinary skill would understand that the window would be “separate from, and not part of, the menu.” *Id.* at 61 (citing Ex. 2011 ¶ 116). Patent Owner asserts that the Specification of the ’476 patent explains that “a user can get to the summary window in just two steps—first, launch a main view which shows various applications; then, launch the appropriate summary window for the application of interest.” *Id.* at 61–62 (quoting Ex. 1001, 3:5–8). Patent Owner argues Figure 1 of the ’476 patent illustrates the main view, which Patent Owner asserts corresponds to the “main menu,” and Figure 2 of the

'476 patent “shows a separate summary that is displayed on top of the main menu when a particular application listed in the main menu is selected.”

Id. at 62 (citing Ex. 1001, 3:17–46, Figs. 1, 2).

Petitioner simply contends that no construction is necessary. Reply 5.

We do not agree that “reached directly from the menu” requires that the summary window be “separate from, and not a part of the menu.” To begin with, nothing in the claims requires such a demarcation. Although the claims indicate that the menu and the summary window are distinct entities, there is nothing that requires that the application summary be “separate” and “not a part” of the menu. Moreover, there is no express requirement in the Specification that the “summary window” be “separate” from the menu.

Patent Owner relies on Figures 1 and 2 of the '476 patent to support its contention, but these figures illustrate why Patent Owner's construction is not supported. For example, Figure 2 shows the “summary window” displayed together and as a single view with the options of the menu. The Specification indicates that a user can scroll seamlessly from options in the App Snapshot to the next item on the list. *See* Ex. 1001, 4:17–20 (“Scrolling down through the App Snapshot and off the end moves the highlight to the next application in the list. . . .”). Indeed, the Specification states that:

Another caveat regarding the main list is that when the App Snapshot opens, there will typically be one item in the main list above and below it to preserve context—(i.e., to reduce any feeling in the user of having been transported somewhere else in the [User Interface (“UI”)]. They have not gone anywhere yet; the App Snapshot is just showing where they could easily go to).

Ex. 1001, 4:35–40. The '476 patent indicates that although these may be different views of menu, Figures 1 and 2 are both part of the main menu

component of the user interface. Thus, we do not agree the term is limited in the manner Patent Owner suggests. With this qualification, we adopt Patent Owner’s proposed construction of this phrase “reached directly from the menu,” namely —“reached without an intervening step.”

4. *“data offered within the one or more applications”*

The phrase “data offered within the one or more applications” appears in claims 1 and 20. Patent Owner does not propose a construction for this phrase, but states that “the type of ‘data’ being claimed in claims 1 and 20 (and their dependent claims) must be ‘data’ that is both displayed in a list in the ‘application summary’ and is ‘seen within the respective application.’” PO Resp. 19–20. Patent Owner submits that examples of this “type” of data are “‘preview data’ that previews the first line or subject of a message, or data/time that the message arrived may meet these requirements.” *Id.* at 20 (citing Ex. 2011 ¶ 36). Petitioner responds that no construction is necessary. Reply 4. Petitioner further argues that Patent Owner’s suggestions that “‘data’ is limited to information that ‘is both displayed in a list in the ‘application summary’ and is ‘seen within the respective application,’” are not supported by the record. *Id.* (quoting PO Resp. 19–20, 35). In particular, Petitioner notes that the only support for these requirements is Mr. Denning’s testimony, and he, in turn, relies on a portion of Specification that has nothing to do with “application summary.” *Id.* (citing Ex. 1001, 5:8–15). Instead, Petitioner submits that Patent Owner’s limitations on the “types” of “data” are inconsistent with the examples of data in application summaries shown in the ’476 patent. *Id.* at 4–5.

We agree with Petitioner that Patent Owner is seeking to improperly limit “data offered within the one or more applications.” First, we decline to

limit the recited data to “types” of data. *See* PO Resp. 19. When the inventors wished to claim “data types,” the inventors did so expressly. *See* Ex. 1001, claims 3, 4. As for the specific examples of data that Patent Owner identifies, we agree with Petitioner that those examples—“‘preview data’ that previews the first line or subject of a message, or data/time that the message arrived”—are discussed in the context of things that are displayed in the launched application, not the summary window. *See* Ex. 1001, 5:8–15 (discussing display options in the “Messages view” and stating “[r]ather than an App Snapshot opening here” indicating this is not the App Snapshot). Thus, we decline to read these examples into the claim. Other than that, we determine that no further construction of this phrase is necessary.

5. “user”

Claim 4 depends from claim 1 and adds “a user can define what data types are of interest to that user for the summary for an application.” Neither party proposes a construction for the term “user.” Nevertheless, the parties dispute whether a manufacturer, designer, or implementer of a device necessarily is a “user” of the device. Pet. 30–31; Reply 13–14; PO Resp. 36–37. We agree with Patent Owner that a “designer” or “implementer” of a device is distinct from a user of that device. PO Resp. 36–37. This understanding is consistent with the Specification, which describes them as distinct entities. *See* Ex. 1001, 3:44–45 (“as defined by the system designer, or selected by the user”); 4:50–55 (“Alternatively, the user or system designer may define the kinds of functionality and/or stored data to be included in the App Snapshot for a given application. The constituency of the App Snapshot can therefore vary as determined by the user and/or system designer and/or usage patterns of the user.”), 5:33–35 (“[T]he

snapshot views are then views of commonly used functions and/or data, selected by the system designer, user or through a machine learning process.”). Thus, a “user” is an individual operating the device, as distinct from the individual(s) who designed and implemented the device.

6. “*mobile telephone*”

In our Decision on Institution, we construed the term “mobile telephone” based on what we found to be a lexicographic definition in the ’476 patent. Neither party challenges that construction, so we maintain it. Thus, we construe the term mobile telephone to mean:

The term ‘mobile telephone’ refers to any kind of mobile device with communications capabilities and includes radio (mobile) telephones, smart phones, communicators, PDAs and Wireless information devices. It includes devices able to communicate using not only mobile radio such as GSM or UMTS, but also any other kind of wireless communications system, such as Bluetooth.

Inst. Dec. 6 (quoting Ex. 1001, 1:28–34).

B. SCHNAREL-BASED OBVIOUSNESS GROUNDS

One set of instituted grounds relies primarily on the Schnarel reference and alleges that claims 1, 4, 7–9, 20, 28, and 29 of the ’476 patent are unpatentable as obvious over Schnarel alone and Schnarel and Aberg. Pet. 13–37; Inst. Dec. 7–22. Petitioner also asserts that claim 4 is additionally obvious over the combinations of Schnarel and Smith and Schnarel, Aberg, and Smith. Pet. 19–20, 30–33; Inst. Dec. 19–22.

1. *Schnarel (Ex. 1004)*

Schnarel, titled “Graphical User Interface for a Screen Telephone,” describes a graphical user interface for a web telephone and other telephony devices that provides information and enables the user to access

functionality of the device. Ex. 1004, Abstract. In particular, Schnarel describes a “start” or “home” screen of a telephony device, which is shown in Figure 1 reproduced below. *Id.* at 4:17–19.

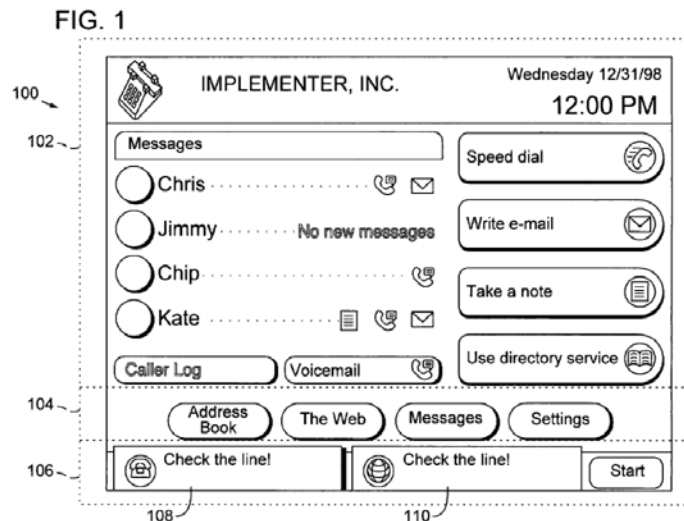


Figure 1, reproduced above, illustrates an example of start screen 100. *Id.* at 4:34. The start screen includes the following display elements: pane area 102, application selection area or application button bar 104, and call slip area 106. *Id.* at 4:34–37. Schnarel describes that the application button bar’s primary functions are to inform the user about all of the applications that are available to them and to provide a vehicle for launching those applications. *Id.* at 9:4–6. The default panes within pane area 102 are labeled in Figure 2 of Schnarel, reproduced below.

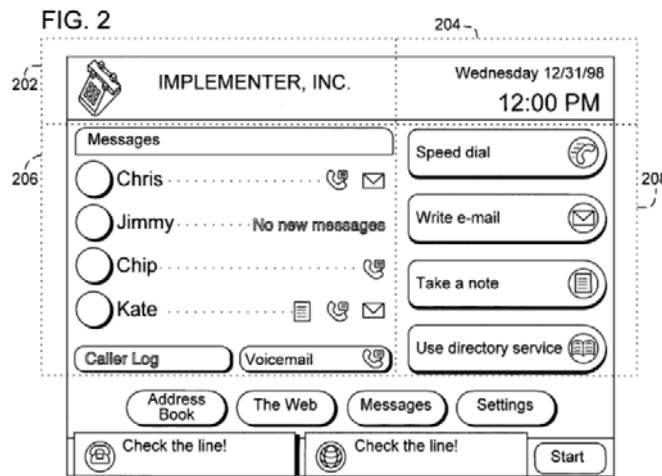


Figure 2 illustrates an example of the default panes of the home screen.

The default panes of the home screen include branding pane 202, date and time pane 204, message pane or message summary pane 206, and task pane 208. *Id.* at 5:20–22. Schnarel also describes a message pane that allows users to “quickly discover whether or not they have new messages and quickly access these new messages.” *Id.* at 6:26–34. The message pane works with a “parent application program” that “notifies the message pane program when state changes occur, such as the arrival of a fax, e-mail or answering machine message.” *Id.* at 2:64–3:7. “The message pane displays an indicator of the type of message that has arrived in the pane.” *Id.*

In the message pane, when the user selects “[u]ser-specific messages button (308) [shown in Figure 3], the button’s procedure launches a message viewer application.” *Id.* at 6:62–7:3, Fig. 3. The viewer application that is chosen depends on the type of new messages available. *Id.* at 7:1–12. Similarly, the controls in the “general messages area enable the user to launch a task associated with the control”: e.g., upon “selecting an active fax button, the messages application is launched and a fax viewer is displayed,”

and “pressing an active call logger button causes the messages application to launch, and a call log viewer to be displayed.” *Id.* at 8:46–67.

2. *Aberg (Ex. 1005)*

Aberg, titled “Portable Communication Apparatus Having a Hierarchical Menu System and a Dynamic Menu,” describes a menu system for a portable communication apparatus, such as a mobile telephone. Ex. 1005, 2:55–57. In particular, Aberg discloses a dynamic menu, which may be customized by the user and is easily accessible from the normal menu system. *Id.* at 2:57–60. The menu system is hierarchical and includes a plurality of top-level and sub-level menus. *Id.* at 4:22–31. The dynamic menu may be located anywhere further down the menu hierarchy, i.e., a sub-menu of any top-level or sub-level menu in the menu system. *Id.* at 7:25–29. The top-level menus include, for example, a mail menu (for reading and sending short messages), a clock menu (for setting date and time), a calculator menu (for using the mobile telephone to perform calculations), an access menu (for barring certain call types, locking the telephone, etc.), and a networks menu (for selecting mobile telecommunications network to be used). *Id.* at 4:36–48.

Figure 3, reproduced below, illustrates the menu structure of Aberg.

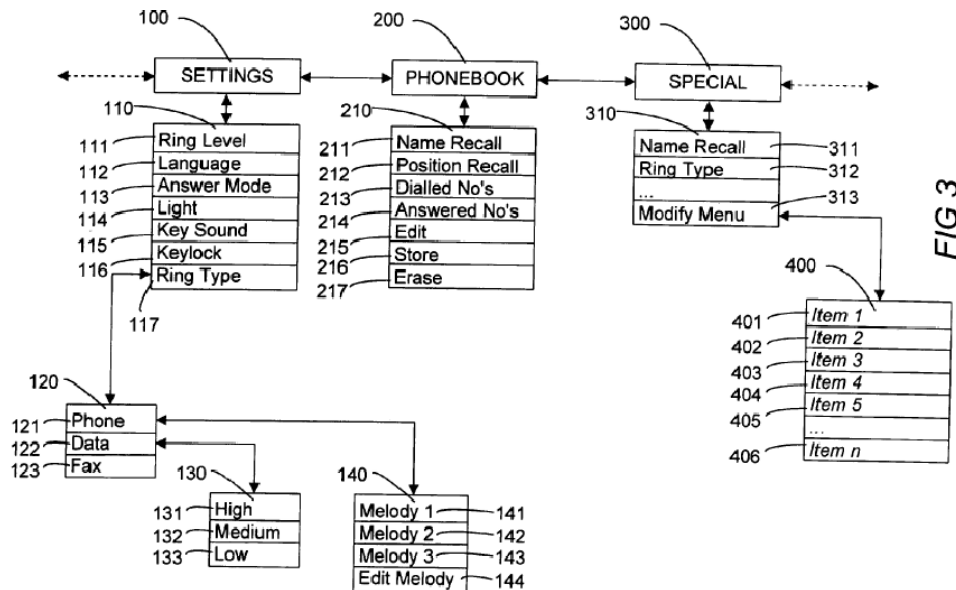


Figure 3, reproduced above, is a schematic diagram of a menu system according to Aberg's invention, and includes a dynamic menu that can be modified by a user of the communications apparatus. *Id.* at 3:23–25. Three “top-level” menus are shown in Figure 3: SETTINGS menu 100, PHONEBOOK menu 200, and SPECIAL menu 300. *Id.* at 4:32–34. SPECIAL menu 300 is a dynamic menu, the contents of which may be modified by the user. *Id.* at 4:34–36. The menu system includes other top-level menus not shown in Figure 3. *Id.* at 4:36–48.

3. Smith (Ex. 1006)

Smith, titled “Integrated Message Center,” describes an integrated message center for telecommunications equipment such as a mobile telephone. Ex. 1006, 3:50–54, Fig. 7A. In particular, the “integrated message center” of Smith graphically displays different types of received messages together to facilitate user viewing and manipulation of the messages without having to follow a series of menus or launch separate

applications. *Id.* at 2:26–31. The integrated message center represents a unified mailbox through which the user is presented with SMS notification messages for all types of received messages, including voice, text, ink, fax, and email. *Id.* at 8:26–30. The messages are displayed as a scrollable list of notification headers for all of the received messages. *Id.* at 8:30–40. Each entry in the list of notification headers identifies the received message and includes the sender’s name, an icon identifying the type of message, and the user may specify if the list should include a date/time stamp for when the message was received. *Id.* at 8:40–51.

4. Analysis

a. Claims 1, 7, 20, and 28

i. Claims 1 and 20

Claim 1 is drawn to a device and claim 20 is drawn to a method. The method steps recited in method claim correspond to the respective functions the device of claim 1 is configured to perform. We regard claim 1 as representative. Our discussion with respect to claim 1 also applies to claim 20. We present a limitation-by-limitation analysis of claim 1 below.

a. “A computing device comprising a display screen”

With respect to independent claim 1, we find that Schnarel discloses “[a] computing device comprising a display screen” Ex. 1004, Fig. 8 (showing block diagram of software running on device), 9 (showing block diagram of a web telephone with processor, memory, and display screen), 1:13–15 (stating invention relates to graphical user interfaces and software architectures for telephony devices), 2:13–16 (noting the device has a display screen), 17:45–52 (discussing hardware of device including

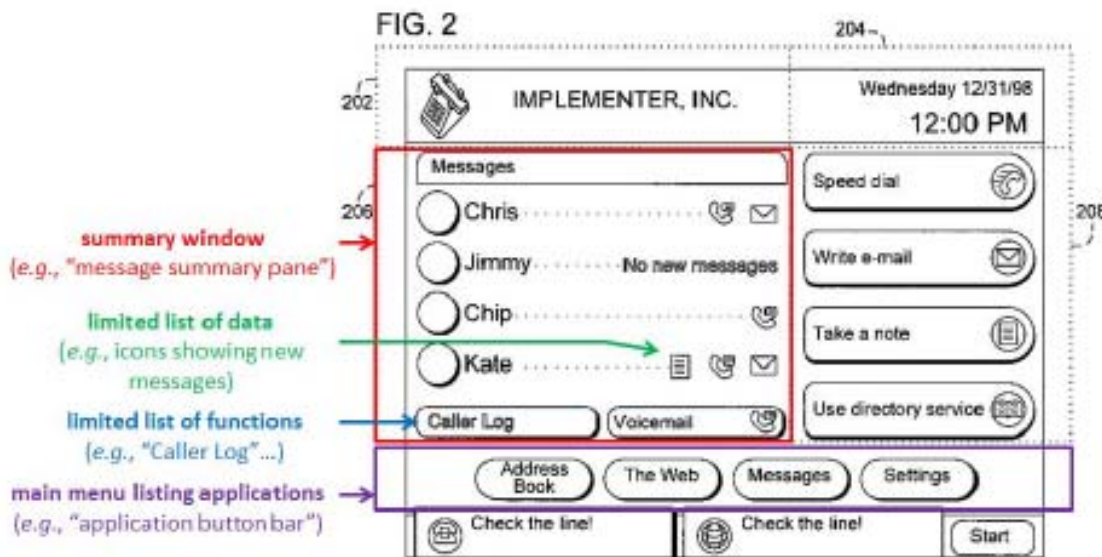
processor and memory), 19:37–41 (device includes processor and display); Ex. 1003 ¶¶ 39, 40, 53.

- b. *“the computing device being configured to display on the screen a menu listing one or more applications”*

We further find that Schnarel discloses through its application button bar (or application selection area) 104, that the device is configurable to “display on the screen a menu listing one or more applications.” Ex. 1004, Fig. 1 (showing application button bar 104, i.e., main menu), 4:4–15 (discussing applications that run on the software platform), 4:34–37 (describing various “panes” available in the “start screen”), 4:49–55 (describing application selection area 104 and functions), 9:1–30 (describing functions of the “application button bar”); Ex. 1003 ¶¶ 39, 40, 55–57. These applications include “Address Book,” “The Web,” “Messages,” and “Settings.” See Ex. 1004, Fig. 2.

- c. *“additionally being configured to display on the screen an application summary that can be reached directly from the menu”*

Petitioner identifies message summary pane 206 as an application summary window. Pet. 22–24. Petitioner illustrates this in its annotated version of Figure 2, which we reproduce below.



This figure, reproduced above, is a version of Figure 2 of Schnarel that was annotated by Petitioner to map some of the claim limitations to Schnarel's interface, including the "main menu listing applications," the "limited list of functions," the "limited list of data," and the "summary window." Pet. 14. As can be seen in the annotated version of Figure 2 reproduced above, Petitioner identifies Schnarel's "message pane" as teaching the "summary window" recited in claim 1. Pet. 22–23 (citing, e.g., Ex. 1004, Fig. 2 (showing message pane 206), Fig. 3 (showing detail of message pane 206), 2:41–3:2 (discussing message pane 206), 5:18–26 (describing message pane 206 and task pane 208), 6:27–7:12 (discussing the components of message pane 206, message graphic area 302, and user specific message area 304), 7:38–63 (discussing "new messages icon list 312" and its function), 8:37–67 (describing operation of buttons in message pane); Ex. 1003 ¶¶ 39, 40, 58–67).

Petitioner appears to concede that Schnarel's application summary is not "reached directly from the menu." Pet. 28–29. Petitioner offers, however, two theories for how the Schnarel-based grounds account for the

requirement that the “application summary. . . can be reached directly from the menu.”

First, Petitioner argues that it would have been obvious to modify Schnarel’s message pane so that it could be reached directly from Schnarel’s menu. Petitioner contends that a person of ordinary skill in the art would have recognized that it would have been an “obvious and a straightforward and beneficial design choice” to configure Schnarel’s message summary pane (i.e., summary window) so that it could be reached directly from the main menu. *Id.* at 28–29 (citing Ex. 1003 ¶¶ 62, 63). Petitioner argues that a person of ordinary skill in the art would have recognized that it was “advantageous to use a summary window that is reached directly from the main menu to avoid cluttering the display with too much information while still providing easy access to functions and data offered in an application.” *Id.* at 29. Petitioner asserts

It would also have been beneficial to provide a summary window that can be reached directly from a main menu to provide easy access to functions and data offered in an application for smaller display spaces (such as on a display screen of a mobile telephone) which might not have enough room on the display screen to display a summary window and main menu at the same time.

Id. (citing Ex. 1003 ¶ 63; Ex. 1004, Fig. 5, 6, 9:40–51, Abstract, 3:14–16, 5:7–17). Petitioner further argues that such a modification would have been a “routine . . . implementation choice,” and “it would have been clear to a [person of ordinary skill in the art] that it would work and provide the expected functionality to yield predictable results.” *Id.* at 30 (citing Ex. 1003 ¶ 63).

Second, Petitioner additionally relies on Aberg to suggest an application summary window that can be reached directly from the menu, as recited in claims 1 and 20. *Id.* In the combination with Aberg, Petitioner proposes to modify Schnarel using the teachings of Aberg “that a summary window (such as Schnarel’s “summary pane”) could be configured either at the ‘top level’ of the menu or ‘as a sub-menu’ of a top-level menu” to have a summary window that can be reached directly from the main menu. Pet. 18–19 (citing Ex. 1003 ¶¶ 67). Petitioner also articulates reasoning for why a person of ordinary skill would be motivated to combine Schnarel and Aberg in the manner proposed by Petitioner. Pet. 16–19. Petitioner contends that a person of ordinary skill would have looked to Aberg to provide easy access to functions and data offered in an application for smaller display spaces, which might not be sufficiently large enough to display a summary window and a menu at the same time. *Id.* at 18. Petitioner notes that Aberg recognizes that a short menu system is desirable for accessing a “menu item more quickly.” *Id.* at 17 (citing Ex. 1005, 1:31–33, 2:23–25, 5:51–61). Petitioner concludes that the combination is routine and yields predictable results. *Id.* at 18.

Patent Owner argues that there is no motivation to modify Schnarel or combine Schnarel with Aberg in the manner proposed. PO Resp. 28–33. With respect to Schnarel alone, Patent Owner asserts that Petitioner’s “design choice” rationale “defies logic.” *Id.* at 32. Patent Owner argues that instead of avoiding cluttering the main display while providing easy access as Petitioner contends, the modification would undo any advantage in providing the message pane on the top level of the telephone screen as Schnarel teaches. *Id.* at 32–33.

We agree with Patent Owner that Petitioner’s rationale based on Schnarel alone is insufficient. Schnarel provides some of the teachings necessary to account for the claimed feature, such as collapsible windows and customization, but falls short, by itself, of teaching or suggesting that the *messages pane* can be reached directly from the menu as the claims require. See Pet. 29–30 (citing Ex. 1004, Abstract, 3:14–16, 5:7–17 (teaching that the graphical user interface is customizable), 9:40–51 (discussing collapsible windows), Figs. 5, 6). Petitioner’s effort to bridge that gap falls short. Although Petitioner offers evidence that a person of ordinary skill *could have* relocated the summary window there, we find this evidence does not establish that a person of ordinary skill *would have* done it on the basis of Schnarel alone. See *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (“[O]bviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.”).

Petitioner attempts to rely on Aberg for the suggestion to move the summary window, see Pet. 29 (citing Ex. 1005, Abstract, 2:3–5, 2:63–3:3, 7:25–29, Figs. 1, 3); Reply 13 (citing Ex. 1005, 2:58–59, 4:32–34, 7:25–29). However, Aberg’s teachings are better considered in the context of the combination of Schnarel with Aberg—where Petitioner has offered detailed reasoning—and not here, in the context of unpatentability based on Schnarel alone and where Petitioner offers only skeletal arguments. As for the other references cited in Petitioner’s analysis for this element, see Pet. 29 (citing Ex. 1006, 8:12–35, Fig. 7A; Ex. 1007, 2:49–53, 3:25–33, 4:31–40, 5:15–25, Figs. 2, 7–10; Ex. 1013, 4:14–58, 9:56–10:28, 11:14–24, Figs. 3–6; Ex. 1014, 8:17–32, 9:61–66, Fig. 5; Ex. 1015, 5:30–6:38, Figs. 2, 4),

Petitioner provides insufficient explanation of what these individual references teach or how these teachings would be combined with Schnarel.

Finally, Petitioner points to “design choice” as the reason why a person of ordinary skill viewing Schnarel would have relocated the application summary to be reached directly from the menu. However, we find that Petitioner fails to support its “design choice” arguments with adequate reasoning. An “obvious design choice” rationale is precluded where the claimed structure and the function it performs is different from the prior art. *See In re Chu*, 66 F.3d 292, 299 (Fed. Cir. 1995); *In re Gal*, 980 F.2d 717, 719–20 (Fed. Cir. 1992). As the Specification of the ’476 patent explains, the arrangement of the summary window as being reached directly from the main menu provides benefits of simplified access for the user. Ex. 1001, 1:36–63 (explaining problems users had in accessing desired features in prior art menu systems). Petitioner has not adequately explained why these benefits are the same as what is found in the prior art, such that the placement of the summary window would be merely “design choice.” *See Chu*, 66 F.3d at 299; *see also Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1362 (Fed. Cir. 2016) (holding that “references to ‘common sense’ . . . cannot be used as a wholesale substitute for reasoned analysis and evidentiary support. . . .”). Accordingly, we find that Petitioner has failed to show that Schnarel alone renders claims 1 and 20 obvious.

We are persuaded, however, that Petitioner has shown that the combination of Schnarel and Aberg would render this limitation obvious. As we mentioned above, Schnarel provides teachings about collapsible windows and customization. Ex. 1004, Abstract, 3:14–16, 5:7–17 (teaching that the graphical user interface is customizable), 9:40–51 (discussing

collapsible windows), Figs. 5, 6. As Petitioner explains, Aberg fills the gap we have identified in Schnarel alone. *See* Pet. 16–19. Aberg discloses a “main menu” with a configurable dynamic menu (the “SPECIAL” menu of Figure 3) that provides access to certain useful functions. Ex. 1005, Abstract, 2:3–5, 2:63–3:3, 7:25–29, Figs. 1, 3. We agree with Petitioner that a person of ordinary skill would have been motivated to relocate the messages pane of Schnarel to a “special” menu option, as shown in Aberg, to deal with the problems of small screens. Ex. 1003 ¶¶ 66–67. This would have retained many of the benefits of Schnarel’s messages pane, and would have allowed it be used with smaller screens. *See* Pet. 17–18.

Patent Owner’s arguments do not persuade us otherwise. PO Resp. 30–32. Although presented as relating to the motivation to combine, Patent Owner’s arguments address various alleged deficiencies in Aberg’s disclosure, Schnarel’s disclosure, and Petitioner’s obviousness reasoning. *Id.* We address them in the order presented by Patent Owner.

Patent Owner initially argues that combining Schnarel with Aberg would not result in an application summary window that is “reached directly” from the main menu. *Id.* at 30. Patent Owner asserts that “Aberg specifically touts the advantage of the dynamic menu as a top-level menu: ‘the provision of the dynamic SPECIAL menu 300 as a top-level menu within the normal menu system will make the mobile telephone easier to use than the prior art telephones.’” *Id.* (quoting Ex. 1005, 5:66–6:3). Thus, Patent Owner appears to argue that because the SPECIAL menu of Aberg is “another high-level ‘dynamic menu,’” it cannot be reached directly from the main menu. *Id.* Patent Owner further argues that placing the SPECIAL

menu as a sub-menu would not allow it to be reached directly from the main menu. *Id.*

We agree with Petitioner that both of these arguments fail to address the Petition’s obviousness mapping. In Aberg, the SPECIAL menu is an item in the main menu that can be opened directly from the main menu without any intervening screens. Ex. 1005, 2:63–3:3, 4:66–5:5, 5:62–65, 7:25–29, Fig. 3. In the combination, Schnarel’s summary window would populate the items of the SPECIAL menu in the main menu. *Id.*; Pet. 16–19. Thus, Patent Owner’s arguments that the SPECIAL menu is somehow a different menu than the main menu or that the SPECIAL menu would have to be placed as a sub-menu do not reflect the actual teachings of Aberg or the contentions in the Petition, which clearly state that the SPECIAL menu is part of the main menu. Ex. 1005, 2:63–3:3, 4:66–5:5, 5:62–65, 7:25–29, Fig. 3.

Patent Owner next argues that “Aberg’s menu hierarchy offers no teaching about an ‘application window’ as recited in the challenged claims.” PO Resp. 31. Patent Owner asserts that Aberg’s “SPECIAL” menu is not an application window because it “is not associated with any application and instead is just an unassociated menu.” *Id.*

We do not find these arguments persuasive. Petitioner does not rely on Aberg alone as teaching the application summary. *See* Pet. 22–24. Instead, Petitioner relies on Schnarel’s message pane as teaching the application summary. Aberg is relied on for its teaching that a summary of key functions can be offered as a menu item reached directly from the main menu of the graphical user interface. *See id.* at 16–19, 22–24; Ex. 1003, 37–39, 58–63; Ex. 1038 ¶¶ 20–22. Thus, Patent Owner’s argument that one of

the references fails to teach the limitation is beside the point because the Petitioner is relying on the combination of references. *See In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

We are also not persuaded by Patent Owner’s argument that the “SPECIAL” menu in Aberg is not associated with a particular application. PO Resp. 31. As Petitioner explains, in the combination, the menu would reflect the options of Schnarel’s messages pane, which would be associated with a single application, the Message Center Application. Reply 14. Thus, this argument suffers from the same problem of arguing the references separately when it is the combination that accounts for the element.

Patent Owner further argues that “Aberg teaches nothing about how to structure a relationship between Schnarel’s message pane 206, which includes ‘names of the user accounts established in the device, as well as the presence of user-specific messages . . . and general-user messages . . . ,’ and Schnarel’s application selection area 104.” PO Resp. 31 (citing Ex. 1004, 6:28–32). In support of this contention, Patent Owner submits that

For example, selecting the PHONEBOOK top-level menu 200 in Aberg leads to all selectable sub-menus or menu items for the PHONEBOOK. This is akin to opening or launching an application and having to further navigate for the desired feature within the launched application, rather than directly reaching an application summary window from a main menu as claimed.

Id.

These arguments are not persuasive for several reasons. First, the combination is not restructuring Aberg’s software to include the functions and user names of Schnarel’s message center. *See* Pet. 16–19; Ex. 1003 ¶¶ 66, 67. Instead, the combination Petitioner proposes would take Aberg’s

suggestion of a dynamic menu and modify Schnarel's application area to include such a dynamic menu to offer the options of the messages pane. *See* Pet. 16–19; Ex. 1003 ¶¶ 66, 67. Thus, Schnarel provides the teachings regarding the “structures” that Patent Owner claims are lacking.

Second, Petitioner provides detailed testimony of Dr. Myers, which we find to be well-reasoned and persuasive, establishing that the proposed modifications to Schnarel to offer an option in the main menu to access the messages pane, such as that as taught in Aberg, would be well within the level of skill in the art. Ex. 1003 ¶¶ 66–67; Ex. 1038 ¶¶ 20–23. Moreover, Petitioner has established that summary windows were well known in the art, further demonstrating that such modifications were within the level of skill in the art at the time of the invention. *See* Ex. 1006, 8:12–35, Fig. 7A; Ex. 1007, 2:49–53, 3:25–33, 4:31–40, 5:15–25, Figs. 2, 7–10; Ex. 1013, 4:14–58, 9:56–10:28, 11:14–24, Figs. 3–6; Ex. 1014, 8:17–32, 9:61–66, Fig. 5; Ex. 1015, 5:30–6:38, Figs. 2, 4. We find Dr. Myers's testimony to be well-reasoned and supported by the evidence of record, and give it substantial weight. Ex. 1003 ¶¶ 66–67; Ex. 1038 ¶¶ 20–23. In contrast, Patent Owner provides no persuasive evidence to support its implicit contention that this modification to make the application summary reachable from the menu would be beyond the level of ordinary skill.

Third, Patent Owner refers to the PHONEBOOK menu in Aberg, but we do not find it relevant or persuasive. *Id.* Petitioner is not relying on the PHONEBOOK option in the menu of Aberg. *See* Pet. 16–19. Petitioner is relying on the SPECIAL menu. *Id.* It is unclear how the properties of the PHONEBOOK menu have any bearing on the properties of the SPECIAL menu. As Petitioner explains, the SPECIAL menu is “customized by the

user . . . to add and delete menu items,” Ex. 1005, 2:55–62, and the SPECIAL menu can be configured for one or more applications. Reply 13. We find the evidence discussed above sufficient to show the structural relationships in the combination. Aberg is relied on for its teachings of making summary windows (dynamic menus) available in the main menu, and Schnarel provides the underlying software structure on which this modified menu would operate. Thus, Patent Owner’s arguments are not persuasive.

Patent Owner next argues that Schnarel’s application selection area 104 (what Petitioner identifies as the menu of the claims) only includes “controls that enable the user to launch an application.” PO Resp. 31–32 (quoting Ex. 1004, 4:49–53). Patent Owner contends that “Schnarel’s area 104 does not allow navigation that would give the user a choice of either launching an application or further navigating to a menu associated with that application.” *Id.* Patent Owner asserts that “[a]t best, Aberg teaches that for a user to access the features of an application in Schnarel’s application selection area 104, the user should open the application.” *Id.* at 31–32 (citing Ex. 2011 ¶ 59).

We do not find this argument persuasive. Patent Owner again addresses the references separately without addressing the combination that Petitioner proposes. Although it is true that in the preferred embodiment disclosed in Schnarel, the application selection area only includes controls to launch the various applications, it does not follow that Schnarel “does not allow navigation that would give the user a choice of either launching an application or further navigating to a menu associated with that application.” PO Resp. 31. Patent Owner provides no citation or explanation for this

conclusion. The mere fact that Schnarel does not disclose it does not mean that it is “not allowed.” Moreover, as we discussed above, Schnarel teaches that menus and features of applications can be placed in collapsible windows and that the menu can be customized. Ex. 1004, Abstract, 3:14–16, 5:7–17 (teaching that the graphical user interface is customizable), 9:40–51 (discussing collapsible windows), Figs. 5, 6. In addition, Petitioner proposes to modify Schnarel to allow such navigation—through a collapsible window accessible from the main menu area, *see* Pet. 16–19—and Patent Owner’s argument fails to acknowledge that modification.

Patent Owner contends that “[a]t best, Aberg teaches that for a user to access the features of an application in Schnarel’s application selection area 104, the user should open the application.” *Id.* at 31–32. However, Patent Owner’s argument appears to ignore again the combination that Petitioner is proposing—adding a SPECIAL menu to the application selection area thereby allowing access to Schnarel’s messages pane. As we explained above, Aberg teaches that the SPECIAL menu would not require launching an application, and would offer user selected options from one or more applications. Thus, we do not understand Aberg’s disclosure to be limited in the manner Patent Owner suggests.

Finally, Patent Owner makes what can be best characterized as a teaching away argument based on Aberg’s alleged disclosure that the SPECIAL menu should be at the highest level in the menu structure, “rather than burying it.” PO Resp. 32. Patent Owner argues that, in contrast, Petitioner relies on Aberg “to justify moving Schnarel’s message pane 206 to a lower level, below area 104, that must be selected to be visible.” *Id.* Patent Owner argues that this is “inconsistent with the teaching of Aberg,

and cannot justify the proposed modification of Schnarel.” *Id.* We do not agree. Patent Owner’s argument ignores Aberg’s disclosure, the proposed combination, and rationale provided by Petitioner.

To begin with, we do not agree that Aberg teaches that the SPECIAL menu always be displayed at the highest possible level. Aberg only suggests that the SPECIAL menu should be provided “as a top-level menu within the normal menu system.” Ex. 1005, 5:66–6:3. “A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the [patentee].” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Aberg does not suggest against changing the messages pane from being constantly displayed to being an option in the main menu. In the proposed combination, the messages pane would remain a top-level menu within the normal menu system, and would be accessible from the main menu. Thus, there is no inconsistency between the combination and Aberg’s teachings.

Further, Petitioner proposes using a menu structure such as Aberg’s where the SPECIAL menu includes the options shown in Schnarel’s messages pane. As Petitioner explains, a person of ordinary skill would be motivated to make this modification to accommodate the demands of a small screen. Thus, when considered in the context of the entire statement and the proposed modification and rationale, we do not agree with Patent Owner that Aberg’s preference for having the SPECIAL menu as a top-level menu teaches away from relocating the messages pane as Petitioner proposes.

In sum, we find Petitioner’s reasoning and evidence sufficient to account for this limitation with respect to the combination of Schnarel and Aberg, but not Schnarel alone.

d. “wherein the application summary displays a limited list of data offered within the one or more applications”

For these limitations, Petitioner argues that Schnarel discloses a device “wherein the application summary displays a limited list of data offered within the one or more applications.” Pet. 24–26. In particular, Petitioner identifies the message pane and its display of the “new messages icon list (312),” which (as shown in Figure 3 of Schnarel) includes notepad (320), answering machine (322), and e-mail messages (324). *See, e.g.*, Ex. 1004, Fig. 3 (showing message pane 304 with icons for notepad 320, answering machine 322, and email messages 324), 6:27–44 (discussing message pane and displaying various message types to users through the message pane), 6:52–61 (explaining icons inform users they have new messages and provide the ability to reach messages quickly by launching the appropriate viewer), 7:41–60 (describing icons and their function in the summary window); Ex. 1003 ¶¶ 39, 40, 68–72. Petitioner further explains that this list is less than all of the data available as shown in Figure 5, which shows telephone numbers. Pet. 24 (citing Ex. 1004, Fig. 5, 13:42–48, Abstract, 3:14–17, 5:50–58, 8:37–45, 8:60–67, 10:45–61, 24:47–53, Fig. 2).

Patent Owner submits that Petitioner has failed to show that Schnarel accounts for a “limited list of data offered within the one or more applications.” PO Resp. 33–36. Patent Owner raises several arguments in support of this contention. First, Patent Owner argues that the icons are not “offered within” an application shown in the menu (application area 104), but rather, the icons 320, 322, and 324 are “to access a viewer program for

displaying and accessing the message.” *Id.* at 34 (quoting Ex. 1004, 3:5–7). Patent Owner asserts that the “notepad message viewer, answering machine message viewer, and e-mail message viewer are separate plug-ins from the message center application . . . and must be separately launched for the messages to be viewed.” *Id.* (citing Ex. 1004, 3:5–7, 6:63–64, 7:1, 7:5–10). Patent Owner contends that “Schnarel confirms that it is not the message center, but the message viewer applications that ‘provide[] the functionality for displaying and managing messages of a particular type.’” *Id.* (citing Ex. 1004, 10:55–59). Thus, Patent Owner argues that “a [person of ordinary skill in the art] would understand that the message viewer applications are separate applications from the message center, and not merely offered within the message center.” *Id.* at 34–35 (citing Ex. 2011 ¶¶ 46, 51).

We find that the cited portions of Schnarel account “the application window displays a limited list of data offered within the one or more applications. Patent Owner’s arguments to the contrary do not persuade us otherwise. As Petitioner explains, Schnarel describes the message center application as the “parent application” of the message summary pane. Reply 6–7 (citing Ex. 1004, 13:42–48). Indeed, Figure 7 of Schnarel, which is a block diagram illustrating the application-level software architecture of Schnarel’s software platform, shows the message viewers as plug-ins under the message center application. A version of Figure 7 of Schnarel annotated by us is reproduced below.

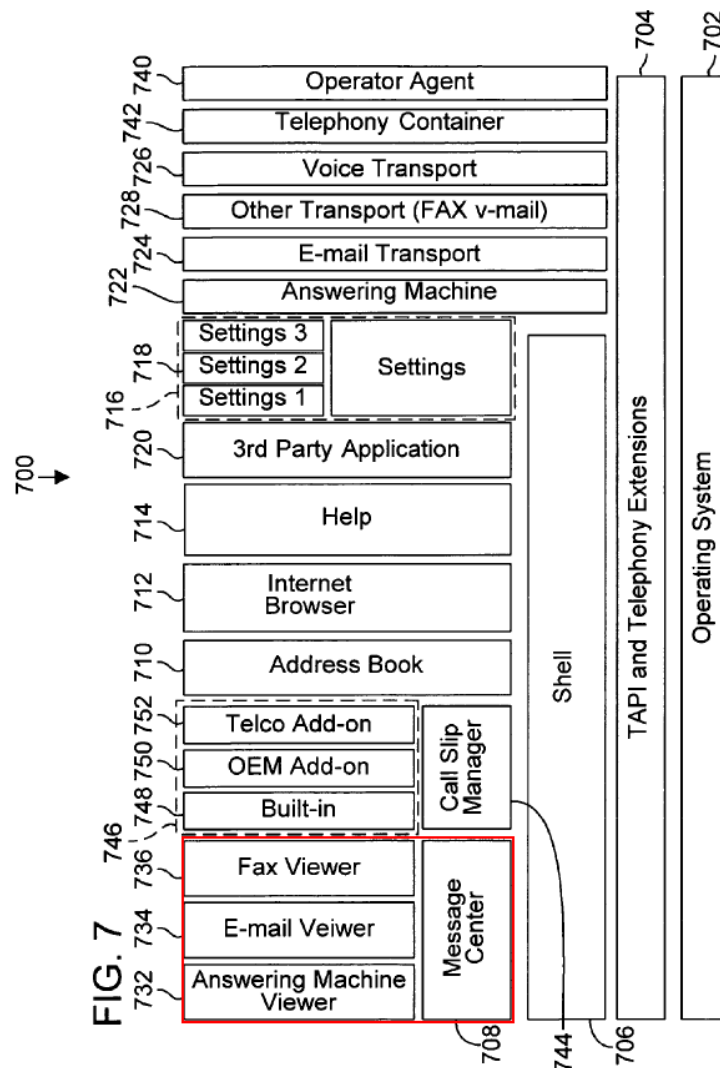


Figure 7, reproduced above is a block diagram showing the application-level software architecture of Schnarel with the Message Center and its constituents highlighted.

As Petitioner and Dr. Myers explain, even if the viewers are plug-ins, the viewers are part of the parent application and are offered with the parent application. Reply 8–9; Ex. 1038 ¶ 12. In other words, the plug-ins provide access to data that is offered within the main application. Reply 8–9; Ex. 1038 ¶ 12. We find this argument to be supported by the evidence provided of the general understanding in the art of the nature of plug-ins,

including the definitions from the *Dictionary of Computer and Internet Terms* and the *Modern Dictionary of Electronics*. See Ex. 1034, 3 (explaining a “plug-in” is “an accessory program that provides additional functions for a main application program”) (DOUGLAS A. DOWNING, ET AL., DICTIONARY OF COMPUTER & INTERNET TERMS (5th ed. 1996)); Ex. 1035, 3 (explaining a “plug-in” is “[a] small software program that plugs into a larger application to provide additional functionality”) (RUDOLF F. GRAF, MODERN DICTIONARY OF ELECTRONICS (7th ed. 1999)). We find this explanation of the relationship between a main application and a plug-in application to be supported by sufficient reasoning and persuasive. Ex. 1038 ¶¶ 12–14. We also find Dr. Myers’s understanding that the plug-in application is part of the application and enables access to data offered within the main application to be persuasive and supported by sufficient reasoning. *Id.*

We further find this ordinary understanding of the nature of a plug-in vis-à-vis a main application is consistent with Schnarel’s description. Schnarel describes the message center application’s purpose as “provid[ing] integrated access to all types of messages . . . such as answering machine messages, e-mails, and faxes,” which indicates that the viewers are considered integral parts of the message center. Ex. 1004, 10:45–48; Ex. 1003 ¶¶ 58–63. Moreover, Schnarel describes the message center as being launched when it displays the appropriate message viewer. See Ex. 1004, 7:56–60 (noting “a procedure associated with the icon launches a message center application program, which displays the appropriate message viewer”). Thus, even accepting Patent Owner’s contentions that Schnarel’s

viewers are plug-ins, we still find that they are separate applications from the message center.

Second, Patent Owner argues that “message pane” is not an application summary of an application listed in the menu, but rather offers the ability to launch various viewer applications, which are not listed in main menu 104. PO Resp. 35. We disagree. This second argument rests on the same premise we found unpersuasive in the first argument—that the viewers, as plug-in applications, are separate and apart from the message center. As we explained above, we agree with Petitioner that a person of ordinary skill would understand, based on Schnarel’s teachings and the ordinary understanding of a “plug-in” that the message viewers are part of the message center application. See Reply 10; Ex. 1038 ¶¶ 12–14. Because the viewers are part of the message center application, we find that these viewers are not new applications that are not represented in the main menu, but are represented in the main menu by the “Messages” button that corresponds to the message center application. Ex. 1038 ¶¶ 12–14. Thus, Patent Owner’s argument that Schnarel fails to teach this limitation because the viewers and message center are separate applications is not persuasive. Ex. 1038 ¶¶ 13–14.

Finally, Patent Owner argues that “the only type of data . . . that is both seen within the application and also displayed in the application summary is the preview data discussed above . . . namely the ‘date and time [the message] arrived and the first line/subject of the message.’” PO Resp. 35 (quoting Ex. 1001, 5:9–11). Patent Owner contends that the icons 320, 322, and 324 “do not disclose any information that is also seen in a respective application.” *Id.* Patent Owner submits that Dr. Myers confirmed

at his deposition that the icons do not provide any indication of the date or time the message arrived or even how many messages have been received. *Id.* (citing Ex. 2012, 95:13–96:5, 139:2–12). We disagree with Patent Owner’s contentions. As we explained above, the broadest reasonable construction of “data” is not limited to “preview data” as Patent Owner contends. Thus, the fact that the identified “data” is not “preview data” is not relevant to whether the new messages icons 320, 322, and 324 are or are not data. Instead, we find Petitioner’s evidence and the testimony of Dr. Myers establish that a person of ordinary skill would understand that Schnarel accounts for “a list of data offered within the one or more applications.” We agree with Petitioner that Schnarel shows that the information (e.g., the new e-mail icon 324) is displayed in the message viewer as shown in Figure 5 (showing the number 2 and the new e-mail icon 324). *See* Ex. 1004, Figs. 3, 5. Moreover, we agree with Petitioner that the ’476 patent describes listing data indicating the presence and type (e.g., email, SMS) of new messages in the application summary. *See* Ex. 1001, Figs. 2 (showing number and type of message), 3 (showing number, type of message or communication, and indicating whether they are new). Consistent with those teachings, Schnarel’s icons 320, 322, and 324 indicate the presence or absence of new messages. Ex. 1003 ¶¶ 68–76; Ex. 1038 ¶¶ 15, 16, 18. In other words, these icons are data that are displayed to indicate the presence of a new message. Ex. 1038 ¶ 18. Furthermore, Schnarel teaches that selecting an icon in the list enables the data (information about the presence or absence of a new message and what type of message) to be seen in the message application. *See* Ex. 1004, 7:41–60, Figs. 3, 5; Ex. 1003 ¶¶ 81–83; Ex. 1038 ¶¶ 15, 16, 18. In sum, we conclude that Petitioner has

shown that Schnarel accounts for “wherein the application window displays a limited list of data offered within the one or more applications.

- e. *“each of the data in the list being selectable to launch the respective application and enable the selected data to be seen within the respective application”*

Petitioner contends that Schnarel accounts for the limitation that “each of the data in the list being selectable to launch the respective application and enable the selected data to be seen within the respective application.” Pet. 26–28. We agree. We find that Schnarel discloses that each of the data in the list (e.g., “new messages icon list (312),” “notepad (320),” “answering machine (322),” and e-mail messages (324) in Figure 3 of Schnarel) is selectable to launch the respective application (e.g., “[w]hen the user selects an icon in the messages icon list, a procedure associated with the icon list launches a message center application program,” Ex. 1007, 7:57–59) and enables the selected data to be seen within the respective application (e.g., “displays the appropriate message viewer,” *id.* at 7:59–60). Ex. 1004, Fig. 3, 6:27–44 (noting icons “allow[] each user to see if there are any new messages and to access messages”), 6:52–7:12 (explaining that icons inform users they have new messages and provide the ability to reach messages quickly by launching the appropriate viewer), 7:41–60 (describing icons and their function in the summary window).

Patent Owner does not make any specific arguments regarding this element, but to the extent that the arguments regarding “a limited list of data” are applicable, we have considered them above with respect to the “limited list of data” limitation. *See supra* at 33–39. Thus, we find that Schnarel accounts for this limitation.

f. “the application summary is displayed while the one or more applications are in an un-launched state”

Finally, we agree that Petitioner has shown sufficiently that Schnarel accounts for the limitation of claim 1 that requires that “the application summary is displayed while the one or more applications are in an un-launched state” by explaining that a person of ordinary skill would understand that Schnarel’s applications are “un-launched” before an icon is selected in the message pane. Ex. 1003 ¶¶ 39, 40, 77; *see also* Ex. 1004, 6:52–7:12 (discussing new messages icons and how they function to launch viewers found in the message center application), 7:41–60 (discussing launching procedure for launching appropriate viewer to show particular new messages).

ii. Claims 7 and 28

Petitioner also accounts sufficiently for the limitations of dependent claims 7 and 28. Pet. 33–34, 37. Claim 7 depends from claim 1 and recites that “the summary is a frame which includes the name of the one or more applications.” Ex. 1001, 6:21–23. Claim 28 depends from claim 20 and has a similar limitation to claim 7. Ex. 1001, 8:19–21. With respect to claims 7 and 28, we find that Schnarel discloses that the summary is a frame (e.g., frame including element 206 in Figure 2 of Schnarel) that includes the name of the one or more applications (e.g., “Messages”). *See* Ex. 1004, 6:47–48, Figs. 2, 3; Ex. 1003 ¶¶ 39, 40, 84, 85. Thus, we find that Schnarel accounts for the limitations of claims 7 and 28. *Id.*; Ex. 1003 ¶¶ 39, 40, 84, 85, 100.

iii. Summary as to Claims 1, 7, 20, and 28

Patent Owner raises no evidence of secondary considerations of nonobviousness in this case. Thus, weighing the evidence of obviousness that is before us, we find that Petitioner has shown by a preponderance of the

evidence that claims 1, 7, 20, and 28 would have been obvious over the combination of Schnarel and Aberg. We further conclude that Petitioner has *not* shown by a preponderance of the evidence that claims 1, 7, 20, and 28 would have been obvious over Schnarel alone.

b. Claim 4

Claim 4 depends from claim 1 and further recites that “a user can define what data types are of interest to the user for the summary for an application.” Ex. 1001, 6:12–14. Petitioner submits that “Schnarel discloses that a user (e.g., ‘implementer’ of the telephony system) can define what data types (e.g., faxes, caller logs, and voice-mail messages) are of interest to that user for the summary window for an application (e.g., ‘message center’).”⁸ Pet. 30–31 (citing Ex. 1004, Abstract, 3:14–17, 8:18–45, 24:47–53, 4:46–48, 5:22–25; Ex. 1003 ¶¶ 39, 40, 78–83). Petitioner also argues that Schnarel teaches that a user can select the data of interest because it allows a user to select which transports (e.g., email, fax) are available on the device. *Id.* (citing Ex. 1003 ¶¶ 79, 80).

With respect to Schnarel’s teachings, Patent Owner argues that there is no disclosure in Schnarel that the “system implementer” is a “user” of the screen phone. PO Resp. 36. Patent Owner notes that Schnarel describes the “system implementer” as an equipment manufacturer or telephone company. *Id.* at 36–37. As for user customization, Patent Owner notes that Schnarel

⁸ Claim 4 depends from claim 1. With respect to Petitioner’s contentions against claim 4 for the grounds based on Schnarel alone and also Schnarel and Smith, Petitioner relies on the same analysis for claim 1 in the ground based on Schnarel alone that we found insufficient. Thus, Petitioner’s contentions that claim 4 would have been obvious based on Schnarel alone and Schnarel and Smith fail for the same reasons discussed with respect to claim 1.

only discloses allowing users to select the default panes and create custom panes. *Id.* at 37. Patent Owner contends that this is not sufficient to disclose a user defining the alleged data types that are of interest to the user. *Id.* In reply, Petitioner argues that “nothing in Schnarel precludes a ‘system implementer’ from being a ‘user’; to the contrary, Schnarel indicates ‘[t]he user may customize the user interface by . . . creating custom panes.’” Reply 14 (quoting Ex. 1004, 3:26–27).

We agree with Patent Owner that Petitioner has not shown that Schnarel teaches this claim limitation. Petitioner’s argument is based on the assumption that a “system implementer” could be a “user.” *See id.* However, as we explained above, this construction is not reasonable in view of the Specification of the ’476 patent. Moreover, consistent with our construction, Schnarel explains that its “implementers” are different from its “users.” *See* Ex. 1004, 3:9–12 (“The software platform for the user interface of the screen phone is distributed to implementers of the screen phone, e.g., equipment manufacturers, telephone companies, etc.”). Thus, pointing to an implementer of Schnarel’s device is insufficient absent a showing that the implementer also is an operator of the device.

Dr. Myers makes a conclusory statement suggesting that a “system implementer” and a “user” can be the same, but he provides no evidence or explanation to support this conclusion either. Ex. 1003 ¶ 78. Under our construction, we do not agree that the mere possibility that an implementer could be a user is sufficient to establish that Schnarel’s discussion regarding “system implementers,” would teach or suggest that a “user” would be able to alter the data types displayed in the messages pane. Thus, to the extent

that Petitioner relies on Schnarel’s teachings regarding “system implementers,” we do not find them persuasive.

In its Reply, Petitioner additionally identifies disclosure in Schnarel that “[t]he user may customize the user interface . . . creating custom panes.” Reply 14 (citing Ex. 1004, 3:26–27). However, there is no citation or discussion of that disclosure in the Petition’s discussion of claim 4. Petitioner provides no explanation why a person of ordinary skill would understand “selecting default panes” or “creating custom panes” to account for ability of the user to “define what data types are of interest to the user for the summary application.” Moreover, Petitioner provides no explanation in the Reply why this would meet the requirement of claim 4 that the user be able to “define what types of data are of interest to the user in the summary for an application.” Thus, we find that Petitioner has failed to show that claim 4 would have been obvious over Schnarel and Aberg.

Petitioner also submits that Schnarel and Aberg can be further combined with Smith to render the claimed invention obvious. *See* Pet. 19–20, 31–32. In particular, Petitioner contends that, in addition to the teachings of Schnarel regarding customization of the messages pane, that Smith further discloses that “a user can define what data types are of interest to that user for the summary for an application,” as recited in claim 4, through the disclosure in Smith of customizable menu windows. Pet. 30–33 (citing, e.g., Ex. 1006, 8:36–51 (message center includes a list of different messages with information to identify the type of message and user can specify to include information), Fig. 7A; Ex. 1003 ¶¶ 39, 40, 78–83). Petitioner argues that a person of ordinary skill would have been motivated to include the ability to select specific data for display, as taught by Smith,

into the message summary pane disclosed in Schnarel because it would be simply improving a known device, with a known technique, with predictable results. Pet. 19–20 (citing, e.g., Ex. 1003 ¶ 83).

As for Smith, Patent Owner argues that Smith’s date/time stamp is found in Smith’s “message center 6100,” and not in an “application summary” while the message center is in an unlaunched state. PO Resp. 37. Patent Owner contends that Smith’s disclosure of data within “message center 6100” offers no teaching that would influence or motivate a person of ordinary skill in the art to modify an application summary window, rather than the application itself. *Id.*

We find that the combination of Schnarel, Aberg, and Smith accounts for this limitation. We find that Smith teaches allowing a user to specify the displayed data types (e.g., whether to display a date/time stamp indicating when a message was received.). Ex. 1006, 8:36–51 (message center includes a list of different messages with information to identify the type of message and user can specify to include information), Fig. 7A. As we explained above, we find that Schnarel discloses an application summary displaying a list of data, as claimed. We further find Petitioner’s explanation of why a person of ordinary skill would have combined the references in the proposed manner to be reasoned and supported by rational underpinning. We find that Petitioner has shown that a person of ordinary skill would have found it obvious and straightforward to use Smith’s advantageous teaching of allowing a user to specify whether or not to provide more data types (e.g., including a date/time stamp to indicate when the message was received) with additional detailed information about the received messages in implementing Schnarel’s phone. See Ex. 1003 ¶ 83. Thus, we determine that Petitioner

has shown by a preponderance of the evidence that claim 4 would have been obvious over the combination of Schnarel, Aberg, and Smith. For the limitations of independent claim 1 included in claim 4, Petitioner's analysis for the obviousness of dependent claim 4 over Schnarel alone and over Schnarel and Smith both rely on the analysis for obviousness of independent claim 1 based on Schnarel alone. *See* Pet. 30. As we discuss in footnote 8 above, we found Petitioner's analysis for its ground based on Schnarel alone inadequate. Thus, for the same reasons, we find that Petitioner has not shown that claim 4 would have been obvious over Schnarel alone or Schnarel and Smith.

c. Claims 8 and 29

Claim 8 depends from claim 1 and requires that the "summary further displays a limited list of functions offered in the one or more applications." Ex. 1001, 6:24–26. Claim 29 depends from claim 20 and requires "displaying in the application summary a limited list of functions offered in the one or more applications." Ex. 1001, 8:22–24.

For this element, Petitioner argues that Schnarel discloses a device where the summary window further displays a limited list of functions offered in the one or more applications, each function in the list being selectable to launch the first application and initiate the selected function." Pet. 34–36. In particular, Petitioner identifies the message pane with its "Caller Log" and "Fax" buttons as a limited list of functions. *See id.* at 34. The "Caller Log" and "Fax" buttons provide functionality in the message pane where selecting the active fax button, for example, in the messages pane causes the message application to be launched and the fax viewer to be displayed. *See, e.g.,* Ex. 1004, Fig. 3 (showing message pane 304 with icons

for notepad 320, answering machine 322, and email messages 324), 6:27–44 (discussing message pane and displaying various message types to users through message pane), Fig. 4 (illustrating fax button 400 on the message pane), 8:46–67 (discussing launching the fax viewer application, voice mail application, and SpeedDial application in response to buttons in the message pane), 7:41–63 (explaining Figure 3 and what the message pane displays when message is received by user), 8:46–59 (discussing what occurs when fax and caller log buttons are pressed); Ex. 1003 ¶¶ 39, 40, 86–91.

Petitioner further explains that this list is less than all of the functions available as shown in Figure 5, which shows the “Add contact,” “Move,” and “Callback” functions that are available in the message center, but not displayed in the message pane. Pet. 35, 36 (citing Ex. 1004, Fig. 5, 13:42–48, Abstract, 3:14–17, 5:50–58, 8:37–45, 8:60–67, 10:45–61, 24:47–53, Fig. 2).

Patent Owner submits that Petitioner has failed to show that Schnarel accounts for a “limited list of functions offered within the one or more applications.” PO Resp. 38–46. Patent Owner raises several arguments in support of this contention. First, Patent Owner argues that “Fax” and “Caller Log” buttons are not “functions,” but rather, the Fax button opens a Fax Viewer and the Caller Log button opens a caller log viewer. *Id.* at 40 (citing Ex. 1004, 8:49–50, 8:58–59). Patent Owner asserts that the “message viewers are separate plug-ins from the message center application.” *Id.* (citing Ex. 1004, 3:5–7, 6:63–64, 7:1). Patent Owner contends that “[a]s applications, the message viewers are launched, and are not simply functions offered within another application.” *Id.* (citing Ex. 1004, 7:5–10). Thus, Patent Owner argues that “a [person of ordinary skill in the art] would

understand that the message viewer applications are separate applications from the message center, and not merely functions offered within the message center.” *Id.* at 32 (citing Ex. 2011 ¶¶ 46, 51).

We do not find this argument persuasive. We find that Schnarel discloses that selecting caller log/fax buttons to activate the operation/command of viewing a caller log/fax message, which we find activates a “function.” Ex.1004, 10:55–61 (“message viewer . . . provides the functionality for displaying . . . messages”), 4:24–27. As we explained above in detail, we further find that the message viewers are part of the message center application, that the message viewers provide functionality, and that these functions are therefore “offered within” the message center application. *See supra* at 33–39; Ex. 1038 ¶¶ 12–14. Thus, even accepting Patent Owner’s contentions that Schnarel’s viewers are plug-ins, we do not agree that they are not “functions offered within” the message center.

Second, Patent Owner further argues that “message pane” is not a “limited list of functions,” because the message pane is not an application summary of an application listed in the main menu, but rather offers the ability to launch various viewer applications, which are not listed in main menu 104. PO Resp. 41–42. We disagree. This second argument rests on the same premise we found unpersuasive in the first argument—that the viewers, as plug-in applications, are separate and apart from the message center. As we explained above, we agree with Petitioner that a person of ordinary skill would understand, based on Schnarel’s teachings and the ordinary understanding of a “plug-in” that the message viewers are part of the message center application. *See Reply 8*; Ex. 1038 ¶¶ 12–14. Because the “Caller Log” and “Fax” buttons represent viewers that are part of the

message center application, we find that these are not new applications that are not represented in main menu, but are represented in the main menu by the “Messages” button that corresponds to the message center application. Ex. 1038 ¶¶ 12–14, 17. Thus, Patent Owner’s argument that Schnarel fails to teach this limitation because the viewers and message center are separate applications, and therefore, they cannot be “functions” of the message center application is not persuasive. *Id.*

We note that, at the Oral Hearing, Patent Owner asserted that what they meant by the argument we have just discussed⁹ was that Schnarel failed to disclose the “limited list of functions offered in the one or more applications” because the “Caller Log” or “Fax” functions were not identified by Petitioner in the lower level menus of Figure 5. Tr. 28–40. Although Patent Owner argues in the Patent Owner Response that the claim limitation “limited list of functions offered within the first application” is not disclosed in Schnarel, Patent Owner never articulates the argument it does now. In particular, Patent Owner never explains that what Petitioner fails to show is that the functions shown in the messages pane are also shown in the lower level menus shown in Figure 5 of Schnarel. *See* PO Resp. 41–42. Moreover, Patent Owner’s arguments in the broader section discussing the “limited list of functions” (pages 38 to 46) revolve around the idea that “Caller Log” and “Fax Viewer” are not “functions,” under Patent Owner’s construction. There is no discussion that they do not meet this claim

⁹ Patent Owner identified page 33 of the Patent Owner Response in IPR2015-01898 as disclosing this argument. Because the argument identified in IPR2015-01898 that was identified is very similar to the argument raised here, we consider this argument as applying to IPR2015-01899 as well.

limitation because they are not found in the lower level menus. Thus, our review of the arguments on pages 38 to 46 convince us that this is a new argument by Patent Owner raised for the first time at the oral hearing.

Petitioner did not have notice of this argument and we decline to consider it now. *See Dell Inc. v. Acceleron, LLC*, 818 F.3d 1293, 1301 (Fed. Cir. 2016). In any event, we do not agree that to be “offered within” an application that the functions must be found in the lower level menus. We understand this term to have its ordinary meaning that these functions are part of the applications. Thus, the fact that Petitioner has not shown that the same button exists at a lower level of the menu is relevant because the “Caller Log” and “Fax” functions are part of the message center application.

Third, Patent Owner contends that “Caller Log” and “Fax” are not “functions” as claimed in the ’476 patent, but “instead would correspond to different windows, or views, of the message center.” *Id.* at 42. Patent Owner argues that under its proposed construction, “simply opening an application window or viewer, and opening different windows or views of one application is not sufficient to disclose the claimed “limited list of functions.” *Id.* We are not persuaded by this argument. As we determined above, “function” is not limited in the manner that Patent Owner contends, and can include opening a different window in the application. *See supra* Section II.A.2. Under this construction, we are not persuaded by Patent Owner’s argument that opening a window or view cannot be a function. Instead, we agree with Petitioner and Dr. Myers that the Caller Log and Fax buttons are functions offered within the messaging center application under our construction. *See* Ex. 1003 ¶¶ 39, 40, 86–91; Ex. 1038 ¶¶ 24–27.

Finally, Patent Owner argues that the “Caller Log” and “Fax” buttons in the Message Pane are not separate functions from the “Messages” button in the main menu. *See* PO Resp. 45–46. Patent Owner asserts that because the “Caller Log” or “Fax” views can be set as default views for the Message Center “[t]he implication is that the Caller Log and Fax buttons, as default screens, will bring the user to the same window as if the user simply selected the Messages button in pane 104.” *Id.* Patent Owner contends that this “confirms” that the Caller Log and Fax buttons are not “functions.” *Id.* at 46.

We disagree with Patent Owner’s assertion that the possibility the Caller Log and Fax button could take you to the same view as the Messages button means they are not “functions.” Instead, we agree with Petitioner that nothing in the claims requires that the functions in the application summary take the user to a different screen than the option in the main menu. Moreover, we agree with Petitioner that Schnarel discloses that pressing the Caller Log and Fax buttons do display different screens. *See* Reply 16–17 (citing Ex. 1004, 8:46–59).

We also agree with Petitioner and Dr. Myers that even if, for example, the default mode was set to Caller Log, pressing the Fax button would still take the user to a different, non-default screen than the Messages button. *Id.* (citing Ex. 1038 ¶ 27).

In addition, Patent Owner acknowledges that any of Schnarel’s viewers may be set as the default view. *See* PO Resp. 42 (“Any one of Schnarel’s message viewers may be a default viewer based on which viewer was last opened.” (citing Ex. 1004, 7:11–12)). Even Patent Owner’s argument contemplates that neither the Caller Log view nor the Fax view is

required to be set as the default and there could be other default screens available when pressing the Messages button. *See* PO Resp. 45 (“[T]he Caller Logger and Fax buttons *can be* the default views. . . .” (emphasis added)). These admissions suggest that there are possible permutations where the Messages button *does not* take the user to either one of the Caller Log or Fax. Thus, for all these reasons, we do not find persuasive Patent Owner’s argument that there may be some configuration where the Messages button results in the same view as one of the Caller Log or Fax buttons.

In sum, we find Petitioner’s evidence and argument persuasive, and determine that Schnarel accounts for the limitations added by claims 8 and 29 relative to each’s base claim—i.e., the “summary further displays a limited list of functions offered in the one or more applications.”

Thus, we find Petitioner has shown by a preponderance of the evidence that claims 8 and 29 would have been obvious over Schnarel and Aberg.

d. Claim 9

Claim 9 depends from claim 1 and requires that the computing device of claim 1 be “a mobile telephone.” Ex. 1001, 6:27–28. Petitioner argues Schnarel accounts for this element because Schnarel further discloses that Schnarel relates to a graphical user interface for “telephony devices,” including “personal digital assistants.” Pet. 36 (citing Ex. 1004, Figs. 8–9, 1:13–15 (“The invention . . . relates to graphical user interfaces and software for telephony devices.”), 1:22–27 (“One significant example of the convergence of phones and computers is a class of devices called smart screen phones. Though the specific hardware configuration of these devices

varies widely, they typically share common elements such as a screen display, hardware buttons, telephone line interface hardware and a processor.”); 2:7–12 (“The invention provides a user interface and related telephony program architecture for telephony devices. While aspects of the invention are particularly well suited for telephones with screen displays (e.g., screen phones), they apply to other telephony devices as well such as modems, answering machines and personal digital assistants.”); Ex. 1003 ¶¶ 39, 40, 92).

Patent Owner argues that Schnarel teaches that “aspects” of its user interface are “well-suited” to personal digital assistants, but Petitioner fails to explain and Schnarel fails to disclose which aspects of the invention apply to personal digital assistants. PO Resp. 47. Petitioner asserts “[t]here is simply no evidence of record or analysis from Petitioner or Dr. Myers to establish that each of the relied-upon features from Schnarel are applicable to personal digital assistants.” *Id.*

We find that Petitioner has shown sufficiently that Schnarel accounts for this limitation. Ex. 1004, Figs. 8–9, 1:13–15, 1:22–27, 2:7–12; Ex. 1003 ¶¶ 39, 40, 92. As we explained above, we have construed “mobile telephone” to include personal digital assistants (PDAs). There is no dispute that Schnarel discloses that its user interface can apply to PDAs. Ex. 1004, 2:7–12. Patent Owner rests its argument that Petitioner has failed to carry its burden on a statement in Schnarel that certain aspects of its interface are “particularly well suited” for certain devices, other than PDAs. However, Patent Owner’s argument reads too much into this statement. The statement does not say that certain aspects of the invention are not suited or will not work with devices, such as PDAs. Indeed, the Petition quotes the sentence

before the sentence that Patent Owner relies upon that makes clear that Schnarel's interface can be used with any and all of the devices identified. *See* Ex. 1001, 2:7–12 (“The invention provides a user interface and related telephony program architecture for telephony devices.”). Moreover, Dr. Myers offers testimony to support this understanding. *See* Ex. 1003 ¶ 92. Patent Owner offers no evidence that this understanding is incorrect. Thus, we find that Petitioner has shown by a preponderance of the evidence that claim 9 would have been obvious over Schnarel and Aberg.

C. NASON-BASED OBVIOUSNESS GROUNDS

The second set of instituted grounds rely primarily on the Nason reference and allege that claims 1, 4, 7–9, 20, 28, and 29 of the '476 patent are unpatentable as obvious over Nason alone. Pet. 37–57; Inst. Dec. 22–34. Petitioner also asserts that claim 9 is also obvious over Wagner and Nason. Pet. 53–55; Inst. Dec. 32–34.

1. *Nason (Ex. 1007)*

Nason, titled “Parallel Graphical User Interface,” discloses a parallel graphical user interface (“GUI”) for digital computers. Ex. 1007, 1:10–13. Nason explains that prior art systems generally had a single “primary” graphical user interface and all other programs ran under it. *Id.* at 1:20–21. Nason's “parallel” graphical user interface is intended to be used with conventional user interfaces to allow a computer user to exploit the capability of conventional displays and processors with a minimal impact on the functionality of the conventional user interface. *Id.* at 1:28–32. Such a user interface is shown in Figure 2, reproduced below.

3:56–4:5. Bar 38 may include one or more “containers” or “cartridges” such as cartridge 86 shown in Figure 3 of Nason.

Figure 3 of Nason is reproduced below.

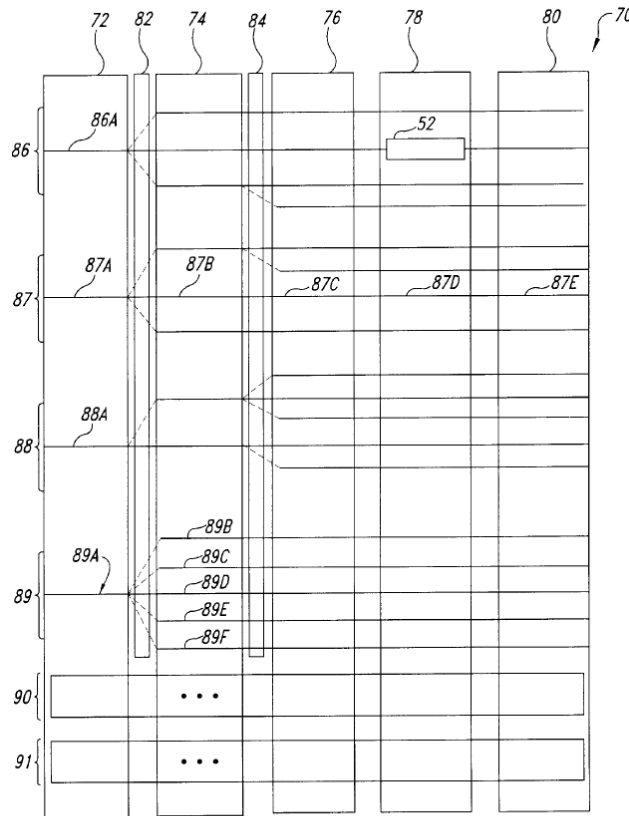


Fig. 3

Figure 3 shows an example of a menu tree. *Id.* at 4:6–8.

Figure 3 shows menu 70 that includes title bands 72, 74, 76, 78, and 80, which correspond to title area 40, button 46, button 50, ticker 52, and button 54 of Figure 2, respectively. *Id.* at 4:8–10. This example includes six containers or cartridges 86, 87, 88, 89, 90, and 91. *Id.* at 4:11–13. More cartridges and titles may be added and the number of cartridges is limited only by the resources of the computer. *Id.* at 4:13–16.

2. *Wagner (Ex. 1010)*

Wagner, titled Wireless Communication Device with Automatic Destination Telephone Number Validity Checking, describes a portable telephone with a graphical user interface using a high-resolution display with capabilities to access email, voice mail, an address book, news, and telephony functions. Ex. 1010, Abstract, 4:56–5:11.

3. *Analysis*

a. *Claims 1, 4, 7, 20, and 29*

i. *Claims 1 and 20*

Claim 1 is drawn to a device and claim 20 is drawn to a method. The method steps recited in method claim 20 correspond to the respective functions the device of claim 1 is configured to perform. We regard claim 1 as representative. Our discussion with respect to claim 1 also applies to claim 20. We present a limitation-by-limitation analysis of claim 1 below.

a. *“A computing device comprising a display screen”*

We find that Nason, through its description of a digital computer system with a display, discloses “[a] computing device comprising a display screen. . . .” See, e.g., Ex. 1007, Fig. 1 (showing a diagram of a computing system with a display), 1:11–13 (describing that the invention relates to a graphical user interface for a digital computer), 1:66–2:21 (discussing architecture of digital computer system), 5:61–6:3 (discussing that interface may be applied to “other types of computer systems” and “other types of devices that have display surfaces”); Ex. 1004 ¶¶ 44–48, 103, 104.

b. *“the computing device being configured to display on the screen a menu listing one or more applications”*

Petitioner further contends that Nason discloses that the device is configurable to “display on the screen a menu listing one or more

applications.” Pet. 42–45. In particular, Petitioner points to Nason’s disclosure of menu 70 including at least one “cartridge” listing different applications, such as a web browser or media player. *See, e.g.*, Ex. 1007, Figs. 2–11 (showing menu), 2:22–29 (discussing Fig. 2), 4:6–30 (describing Fig. 3 as “a menu tree” and that “menu 70 includes . . . cartridges”), 4:31–49 (describing cartridges as including “access to applications, documents, files, or network links, such as URLs and embedded functions”); Ex. 1003 ¶¶ 44–48, 105–108. We agree and find that “menu 70” displays a list of at least a first application.

c. “additionally being configured to display on the screen an application summary that can be reached directly from the menu”

Petitioner also submits that Nason discloses that the device is “additionally . . . configured to display on the screen an application summary that can be reached directly from the menu.” Pet. 45–46. Specifically, Petitioner identifies Nason’s description of tickers and buttons within a “cartridge” that can be reached through rotator buttons that are part of menu 70. *See, e.g.*, Ex. 1007, Abstract (discussing cartridges), 3:56–62 (discussing tickers in cartridges), 4:31–40 (cartridges may include embedded functions), 5:14–33 (button on parallel GUI may cycle through different titles of cartridges), 2:35–38 (GUI modeled as a dial tuning metaphor), Figs. 2–11; Ex. 1003 ¶¶ 44–48, 113–117.

Patent Owner argues that Petitioner has failed to show that Nason teaches an application summary window that can be “reached directly from the main menu.” PO Resp. 60–63. This argument largely rests on Patent Owner’s contention, addressed above in the claim construction section, that “reached directly from the main menu” requires that application summary

window be separate from the main menu. *See id.* We rejected this claim construction above. Instead, we agree with Petitioner that it is sufficient that the buttons and tickers of the Nason’s cartridges can be reached “without an intervening step” from the menu 70. *See* Pet. 45–46; Reply 18–22; Ex. 1003 ¶¶ 109–112. Thus, we find that Nason accounts for this limitation.

d. “wherein the application summary displays a limited list of data offered within the one or more applications”

Petitioner also argues that Nason discloses a device “wherein the application summary displays a limited list of data offered within the one or more applications.” Pet. 46–47. In particular, Petitioner identifies Nason’s discussion of the tickers “(e.g., ticker 52 with ticker text 53 such as ‘5 new E-mails’) [which are] selectable to launch an application (e.g., ‘ticker 52 may be dynamically linked to launch[] an application’ and ‘may activate a hyperlink’) the respective application (e.g., ‘Lycos’ or ‘America Online’) and enable the selected data to be seen within the respective application.” Pet. 47; *see, e.g.*, Ex. 1007, Abstract (describing cartridges having functions and links), 3:56–4:5 (discussing tickers and stating “Scrolling updateable text such as text 53 can be displayed and the text reading area can also be dynamically linked to launch[] an application or URL”), Figs. 2–11, 14, 2:40–53, 3:8–13, 4:31–49; Ex. 1003 ¶¶ 44–48, 118, 119.

Patent Owner raises several arguments why Nason fails to disclose this limitation. First, Patent Owner argues that “Petitioner and Dr. Myers do not recognize or acknowledge [the] true nature of menu 70” and that it is meant to be used in parallel with a conventional graphical user interface. *See* PO Resp. 47–56. We disagree that the Petition misapprehended the teachings of Nason in the manner Patent Owner proposes. Indeed, our review reveals that the two parties largely agree on how menu 70 operates.

Compare Reply 22–23 with PO Resp. 47–56. Patent Owner’s argument appears to be that the selecting title 87C only causes the cartridges to rotate for display, and selecting title 87C does not launch an application or cause selected data to be enabled to be seen. *See* PO Resp. 50–51. However, this argument misstates Petitioner’s obviousness contentions. As Patent Owner acknowledges, Petitioner does not rely on title 87C or the rotator buttons for displaying the cartridges as disclosing the list of data or functions—Petitioner relies on the buttons and tickers listed in the cartridge once it is displayed. *See* PO Resp. 49 (“Petitioner and Dr. Myers allege that ticker 52 with ticker text 53 such as ‘5 new E-Mails’ corresponds to the claimed ‘data’ that is selectable to launch the respective application and enable the selected data to be seen within the respective application.”); Pet. 46–47 (identifying tickers 52 with ticker text 53 on cartridge as meeting the list of data). Indeed, the Petition acknowledges that the rotators serve to make the list of functions visible, not that the rotators are the functions. *See id.* at 45 (“Nason [is] . . . configured to display . . . an application summary . . . (e.g., tickers and buttons within an application cartridge) that can be reached directly (e.g., using rotator buttons) from the menu . . .”).

Patent Owner notes that there is some disclosure in the provisional application Nason claims priority to (U.S. Provisional Application 60/135,385 (“provisional application”)) regarding the placement of Nason’s cartridges in the “overscan area.”¹⁰ PO Resp. 54–56. However, we do not see, and Patent Owner does not adequately explain, how non-limiting

¹⁰ Patent Owner contends the “overscan area” is a black border around the edges of the screen used to ensure the image would not go off the edge of the screen. PO Resp. 55 (citing Ex. 2011 ¶ 111). Petitioner does not dispute this.

teachings in the provisional application about the potential placement of the cartridges constitutes persuasive evidence as to whether the buttons in the cartridges are functions. *Id.* Thus, Patent Owner’s discussion of the nature of menu 70 and the fact that it may be displayed in the overscan area is beside the point, misapprehends Petitioner’s arguments, and is not persuasive.

Patent Owner next argues that the disclosure in Nason identified by Petitioner does not account for the claimed applications. *Id.* at 56–60. Instead, Patent Owner contends that what Petitioner identifies actually are websites, “which is a different concept than an application.” *Id.* at 56 (citing Ex. 2011 ¶¶ 112–114). Patent Owner submits that “[w]hile a user may be able to access an application through a website, the website itself is not an application.” *Id.* (citing Ex. 2011 ¶ 114). Patent Owner argues that a webpage may allow a user to access various applications, such as mail, maps, and social networking, but it is not an application. *Id.* at 56–57. Patent Owner contends that this distinction is supported by Nason, which treats websites separately from applications. *Id.* at 57. Patent Owner argues that even if Lycos or America Online offered access to applications, such as E-Mail or Search, “[t]he overall website[s] themselves are] not . . . application[s].” *Id.* at 59–60 (citing Ex. 2011 ¶¶ 114, 115). Thus, rather than being functions of an application as Petitioner contends, Patent Owner argues that the E-Mail “function” is really an application that is offered on the America Online website. *Id.* at 60.

We agree with Petitioner that Nason teaches that the cartridges include a “limited list of data,” as recited in the claims. We find that Nason discloses that ticker 52 (Ex. 1007, 2:40–49) contains data from the

respective application, i.e., text 53 (*id.*). Nason further teaches that the ticker “can also be dynamically linked to launch[ing] an application or URL” and can “activate a hyperlink through a network such as network 15 when ticker 52 is clicked on, or subjected to a complete button cycle” (Ex. 1007, 3:56–4:5).

Moreover, we are persuaded by the testimony of Dr. Myers that a person of ordinary skill would understand that America Online and Lycos would be applications and that E-Mail and Search would be understood to be functions that are part of the America Online and Lycos applications. *See* Ex. 1038 ¶¶ 28, 29. Although Patent Owner argues that email and search are applications, but not the main America Online or Lycos pages, *see* PO Resp. 58–60, we do not find persuasive Patent Owner’s efforts to draw a line between the web pages associated with the function (“E-Mail” and “Search”) and the main web page from which those functions can be accessed.

As Dr. Myers explains, a typical application is going to be composed of a number of different web pages. Ex. 2012, 72:8–17 (a “web application is a collection, typically one or more web pages, that helps the user [to] do a variety of tasks or a variety of functions”), 73:12–21; Ex. 1038 ¶¶ 28, 29. Patent Owner attempts to pick one web page (e.g., Google.com, aol.com, or lycos.com) and separate this one web page from the remainder of the numerous associated pages that offer the various suite of functions included in this particular web application. *See* PO Resp. 58–60 (discussing Google webpage and associated services).

According to Patent Owner’s reasoning, any of the web applications it identifies in its example is susceptible to the same deconstruction. For

example, if the main page of Google can be isolated and considered separately from the numerous functions it offers, then the same could be done with the corresponding pages for Gmail and Google+—the services offered on Google’s main page that Patent Owner identifies as “applications.” See PO Resp. 58 (“Google’s website does, however, provide a user with access to several applications through its homepage.”), 59 (“These applications include, among other things, Gmail, Google+, and Maps”).

The line that Patent Owner has drawn—that the AOL or Lycos main pages that link to the suite of services offered by AOL and Lycos are only web pages but web pages one level below the main pages are applications—is arbitrary. In contrast, Dr. Myers’s opinion is more reasonable and supported by the evidence. On this evidence, we find that Nason’s teachings account for the “limited list of functions.” Thus, we find that Nason accounts for the limitation “wherein the application summary displays a limited list of data offered within the one or more applications.”

e. “each of the data in the list being selectable to launch the respective application and enable the selected data to be seen within the respective application”

Petitioner argues that “Nason discloses that each of the data in the list (e.g., ticker 52 with ticker text 53 such as ‘5 new E-Mails’) is selectable to launch (e.g., ‘ticker 52 may be dynamically linked to launch[] an application’ and ‘may activate a hyperlink’) the respective application (e.g., ‘Lycos’ or ‘America Online’) and enable the selected data to be seen within the respective application.” Pet. 47–48 (citing Ex. 1007, 3:56–4:5 (“Scrolling updateable text such as text 53 can be displayed and the text reading area can also be dynamically linked to launch[] an application or

URL.”), 2:40–53, 3:8–13, 4:31–49, Figs. 2–11 & 14; Ex. 1003 ¶¶ 44–48, 118, 119). Petitioner submits that the application is not yet launched when the application cartridge is displayed on the display screen. Ex. 1007, 3:10–13, 3:56–60. Petitioner contends that

because the application is not yet launched while the summary window is displayed, a [person of ordinary skill in the art] would have understood that “click[ing] on ticker 52” to “activate a hyperlink” as taught by Nason (e.g., *id.* 4:2–5) (such as by clicking the ticker displaying ticker text “5 new E-Mails” (e.g., *id.* Fig. 10)), would necessarily, and thus inherently “launch” the application to access and see the 5 new-emails in the application.

Pet. 49 (citing Ex. 1003 ¶ 119; Ex. 1008 Figs. 10, 11, 3:57–4:9, 8:14–22, 9:25–36).

In addition, Petitioner argues that if we determine Nason does not disclose that the application is launched when the function in cartridge is selected, that Nason renders this limitation obvious. *Id.* at 49–50. In particular, Petitioner argues that it would have been obvious to a person of ordinary skill to initiate a function from an application by launching that application. *Id.* (citing Ex. 1003 ¶ 117).

Petitioner also provides articulated reasoning with rational underpinning that explains why one of ordinary skill in the art would have modified Nason, so as to initiate a function from an application by launching that application. Pet. 50; Ex. 1003 ¶ 117. Namely, Petitioner states that launching an application when data in a summary window is selected is well-known in the art and person of ordinary skill would have been motivated to have the applications launch when the function is selected because it was known and that such an implementation choice was predictable. *Id.* (citing Ex. 1003 ¶ 117). Thus, Petitioner submits that it

would have been routine to make such an implementation choice and that a person of ordinary skill would expect it to work and the modification would have yielded predictable results. *Id.* (citing Ex. 1003 ¶ 117).

We find that Petitioner has shown that Nason accounts for this element. We find that Nason discloses that each of the data in the list (ticker 52 with ticker text 53 such as “5 new E-Mails”) is selectable to launch (“ticker 52 may be dynamically linked to launch[] an application” and “may activate a hyperlink”) the respective application (“Lycos” or “America Online”). Ex. 1007, 3:56–4:5 (“Scrolling updateable text such as text 53 can be displayed and the text reading area can also be dynamically linked to launch[] an application or URL.”), 2:40–53, 3:8–13, 4:31–49, Figs. 2–11 & 14; Ex. 1003 ¶¶ 44–48, 118, 119. We further find that Petitioner has shown that a person of ordinary skill would have understood that clicking on the ticker text would launch the application to access and see the data in the application. Ex. 1003 ¶ 119. We also find that Petitioner has shown that, regardless of whether Nason would cause necessarily the application to launch and display the data in the ticker, it would have been obvious to a person of ordinary skill in the art to modify Nason to do so. Ex. 1003 ¶ 117; Ex. 1004, 7:57–60.

We agree with Petitioner that such a person of ordinary skill would have been motivated to do so because it was a known method for allowing a user to view the selected data. Ex. 1003 ¶ 117. We further agree that Petitioner has shown that such a modification would have been routine, would have had a reasonable expectation of success, and would have yielded predictable results. *Id.* To the extent that Patent Owner argues that Petitioner has not shown that the application summary of Nason is not

displayed when the application is in an unlaunched state, PO Resp. 64–68, we address that argument below. Accordingly, we find that Nason accounts for the limitation “each of the data in the list being selectable to launch the respective application and enable the selected data to be seen within the respective application.”

f. “the application summary is displayed while the one or more applications are in an un-launched state”

Petitioner contends that Nason accounts for the limitation of claim 1 that requires that “the application summary is displayed while the one or more applications are in an un-launched state.” Pet. 48. Specifically, we find Petitioner has shown that a person of ordinary skill would have understood that Nason’s discussion of launching the applications when buttons in the cartridges are pressed describes that the applications are in an un-launched state. *See* Ex. 1003 ¶¶ 44–48, 120.

Patent Owner’s argues that although claims 1 and 20 require that the summary window that displays the list of data be displayed while the application is in an un-launched state, the summary window of Figure 10 does not meet this requirement. PO Resp. 64–68. Instead, Figure 10 shows the America Online cartridge being displayed while the America Online website is shown. *Id.* at 69. Patent Owner argues that the application would be considered “launched” in Figure 10 because a window to the website is open and visible. *Id.* at 67. Patent Owner contends that the “5 New E-Mails” text of Figure 10 could not qualify as the claimed “list of data” because the corresponding application would be considered launched—not an unlaunched state as required by the claim. *Id.*

We do not agree. Instead, we find that Nason accounts for the limitations of claims 1 and 20. Patent Owner’s argument is not persuasive

because it focuses on Figure 10 of Nason, but ignores the other disclosure of Nason as relied on by Petitioner. Reply 24. As Petitioner persuasively explains, Nason discloses that clicking on the buttons and tickers in the cartridges can launch an application associated with the button that is pressed. Reply 26 (citing Ex. 1007, 3:8–13).¹¹ Thus, we conclude that Nason accounts for this element. *See* Ex. 1007, 3:8–13 (pressing button or selecting button launches the application), 3:57–60 (text in ticker dynamically linked to launch application or URL).

ii. Claims 4, 7, and 28

Petitioner also accounts sufficiently for the limitations of dependent claims 4, 7, and 28. Pet. 50–51, 56. Claim 7 depends from claim 1 and recites that “the summary is a frame which includes the name of the one or more applications.” Ex. 1001, 6:21–23. Claim 28 depends from claim 20 and has a similar limitation to claim 7. Ex. 1001, 8:19–21. As we have found above, Petitioner has shown that Nason accounts for the limitations of claims 1 and 20, and that a person of ordinary skill would have modified Nason in the manner argued by Petitioner. With respect to claims 7 and 28, we find that Nason discloses that the summary is a frame (“Bar 38”) that includes the name (“title area 40”) of the one or more applications (Lycos, America Online, and Amazon). Ex. 1007, 2:40–44, 2:49–53, 4:8–18, 3:43–46, 7:49–50, Fig. 10; Ex. 1003 ¶¶ 44–48, 124, 139. With respect to claim 4, we find that Nason discloses that the user can define what data types

¹¹ At the oral hearing, Patent Owner asserted that Petitioner’s reliance on Figure 5 of Nason for this limitation was a new argument that was improper. Tr. 46:4–15. We do not rely on Petitioner’s identification of Figure 5 for this limitation, so we do not need to reach whether it was a new argument or whether Patent Owner preserved its contention that this is a new argument.

(ticker 52 with ticker text 53) are of interest to that user for the summary window for an application through its disclosure that the tickers and buttons of the cartridge can be personalized by the user. Ex. 1007, Abstract, 4:31–44, 5:45–52; Ex. 1003 ¶¶ 44–48, 121–123.

Patent Owner presents no separate arguments regarding patentability for these claims. Thus, we find that Petitioner has shown Nason accounts for the limitations of claims 4, 7, and 28.

iii. Summary as to Claims 1, 4, 7, 20, and 28

Patent Owner raises no evidence of secondary considerations of nonobviousness in this case. Thus, weighing the evidence of obviousness that is before us, we find that Petitioner has shown by a preponderance of the evidence that claims 1, 4, 7, 20, and 28 would have been obvious over Nason alone.

b. Claims 8 and 29

Claim 8 depends from claim 1 and requires that the “summary further displays a limited list of functions offered in the one or more applications.” Ex. 1001, 6:24–26. Claim 29 depends from claim 20 and requires “displaying in the application summary a limited list of functions offered in the one or more applications.” Ex. 1001, 8:22–24.

Petitioner also argues that Nason discloses a device in which the “summary (e.g., tickers and buttons within an application cartridge) further displays a limited list of functions (e.g., buttons embedded with functions on a cartridge) offered in the one or more applications.” Pet. 51–53, 56. In particular, Petitioner identifies Nason’s discussion of buttons in the cartridge that list different functions, which can be launched by clicking on the buttons or text. *See, e.g.*, Ex. 1007, Abstract (describing cartridges having

functions and links), 2:40–49 (bar has buttons), 3:42–55 (describing button functionality), 3:56–4:5 (discussing tickers), Figs. 2–11, 14; Ex. 1003 ¶¶ 44–48, 125–128. Petitioner submits that this list is limited because the cartridges show some functions offered within the application, but not others. See Pet. 52–53; Ex. 1003 ¶¶ 126–128; see also Ex. 1007, Fig. 5 (displaying search and web functions for the Lycos application, but not displaying other functions, such as, “My Lycos” and “Check E-Mail”), Fig. 10 (showing certain functions of the AOL application, but not all).

Patent Owner initially argues that “[t]he alleged ‘summary’ of FIG. 10, which is the only portion of Nason specifically pointed to by Petitioner and Dr. Myers as allegedly containing ‘data’ that is ‘selectable to launch the respective application and enable the selected data to be seen within the respective application,’ only contains ticker text . . . [and] [n]one of this ticker text is a ‘function offered in the one or more applications.’” PO Resp. 69. This argument is not persuasive. There is no requirement in an obviousness case that all the limitations must be found in a single figure. See *In re Applied Materials, Inc.*, 692 F.3d 1289, 1298 (Fed. Cir. 2012) (“A reference must be considered for everything that it teaches, not simply the described invention or a preferred embodiment.”).

Here, Petitioner has identified, among other things, Nason’s teachings of tickers and buttons in the cartridges, such as button 46, button 50, and ticker 52 of Figure 2, as teaching the “application summary window.” See Pet. 51–52. Petitioner relies on Figure 10 as an example in Nason showing a working ticker. *Id.* at 39, 48. There is nothing improper about pointing to a different figure in the same reference to show the scope of what the figure being relied on would suggest to a person of ordinary skill in the art. We

also note that Patent Owner is incorrect to require that Figure 10 disclose both a ticker and the list functions, *see* PO Resp. 69, when Petitioner is relying on the full disclosure of Nason.

Patent Owner raises several arguments (some considered above with respect to claim 1) why Nason fails to disclose a “limited list of functions.” First, Patent Owner argues that the disclosure in Nason identified by Petitioner as accounting for the claimed applications are not applications. *Id.* at 70. As we explained above, Petitioner has established that Lycos, America Online, and Amazon are web applications and meet the recited application of the claims. *See supra* at 61–62.

Second, Patent Owner contends that the functions identified by Petitioner are applications and not functions. PO Resp. 70. As we explained above, we disagree and find that Petitioner has shown that—Check E-mail and My Lycos—are functions in their respective web applications. *See supra* at 61–62. We find similar reasoning, as to why the functions in the web applications are functions and not separate applications, applies to Patent Owner’s arguments, PO Resp. 70, that “Top News,” “Channels,” “Mail,” “AOL NetFind,” “Web Centers,” “My News,” “Shopping,” “Web Search,” and “Weather,” are not functions in the America Online application. *See supra* at 61–62.

Finally, as for Patent Owner’s arguments regarding “embedded functions,” because we find the other identified functions meet the claim limitation, we do not need to reach this argument.

Instead, we agree with Petitioner that Nason teaches that the cartridges include a “limited list of functions,” as recited in the claims. Contrary to Patent Owner’s arguments, we find Petitioner’s evidence and

argument persuasive that Nason discloses that a button “launch[es] an application associated with the acting button” (Ex. 1007, 3:8–13) and “perform[s] an associated action” (Ex. 1007, 2:45–49). Moreover, Petitioner has shown that Nason’s “instant messaging” function (Ex. 1007, 4:36–40) provides similar functionality to ’476 patent’s “[e]nter chat room” function (Ex. 1001, 3:46).

Thus, we are persuaded that Petitioner has shown that claims 8 and 29 would have been obvious over Nason.

c. Claim 9

Claim 9 depends from claim 1 and requires that the computing device of claim 1 be “a mobile telephone.” Ex. 1001, 6:27–28. Petitioner raises two contentions to account for this limitation. Pet. 54–56. First, Petitioner contends that Nason by itself renders this limitation obvious. *Id.* at 53–55 (citing Ex. 1007, 1:66–2:8, 5:53–6:6; Ex. 1003 ¶¶ 44–48, 130–131).

Petitioner argues that Nason discloses that its “invention may be implemented in any electronic device presenting a [graphical user interface (“GUI”)] on a display for user control and interaction.” *Id.* at 54 (quoting Ex. 1007, 1:66–2:8). Petitioner asserts that mobile phones were well-known, and that it was also well known for mobile phones to include a display for presenting a GUI for user control and interaction. *Id.* Petitioner argues that “there was a . . . ‘need in the art for a portable cellular telephone which is capable of performing a wide variety of functions and which can be operated using an intuitive, easy-to-use user interface.’” *Id.* at 54–55 (quoting Ex. 1010, 1:25–28). Petitioner asserts that because “Nason teaches an intuitive, efficient, and convenient way to display functions and data from different applications to a user . . . in a limited space using a GUI that runs in

parallel with a conventional GUI.” *Id.* at 55 (citations omitted). Petitioner contends this implementation would have been routine, and a person of ordinary skill would anticipate that it would work and provide the expected functionality to yield predictable results. *Id.*

Second, Petitioner argues that Nason in combination with Wagner accounts for this limitation. *Id.* at 40–42, 53–55. Petitioner contends that Wagner discloses a “portable telephone” using a GUI that includes a main menu listing applications and a “summary window displaying data (e.g., ticker-tape display).” *Id.* at 53 (citing Ex. 1010, Abstract (“A portable telephone provides a graphical user interface (GUI) using a high resolution display. . . .”), Figs. 3A, 10; Ex. 1003 ¶¶ 44–48, 130, 131).

In response, Patent Owner argues that Nason is designed to be used in what is called the “overscan” area of a screen, which is pertinent to cathode ray tube (“CRT”) displays. PO Resp. 72. Patent Owner argues that Nason does not disclose how to adapt this technology to the type of display used in mobile telephones—liquid crystal displays (“LCD”). *Id.* We disagree with Patent Owner’s characterization of Nason’s teachings. Although one slide in a slide presentation appended to Nason’s provisional patent application (U.S. Provisional Application 60/135,385 (“provisional application”)) has the word “Overscan Area” (with no other explanation), Ex. 2013, 21, there is no other mention or discussion of the concept in either Nason or the provisional application. In contrast, both Nason and the provisional application state expressly that the invention “may be implemented in any electronic device presenting a GUI on a display for user control and interaction” and the GUI “may be transmitted to any conventional display device.”

The only other evidence that Patent Owner cites is the testimony of Mr. Denning (*see* PO Resp. 72–73 (citing Ex. 2011 ¶¶ 130, 131)), but this testimony is in direct conflict with the express disclosure in Nason that it may be used with *any* electronic device with a GUI and on *any* conventional display device. Thus, we give Mr. Denning’s testimony on this point little weight. *See Network Commerce, Inc. v. Microsoft Corp.*, 422 F.3d 1353, 1361 (Fed. Cir. 2005) (“[E]xpert testimony at odds with the intrinsic evidence must be disregarded.”). Instead, we find the testimony of Dr. Myers to be persuasive and well-reasoned, and we give it substantial weight. *See* Ex. 1003 ¶¶ 129–131; Ex. 1038 ¶¶ 33, 34.

Patent Owner also argues that implementing Nason’s GUI on Wagner’s mobile phone would result in an unusable display because the text size would be too small. PO Resp. 73. We do not find this argument persuasive. In an obviousness analysis, “we do not ignore the modifications that one skilled in the art would make to a device borrowed from the prior art.” *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1382 (Fed. Cir. 2007). Here, one of ordinary skill in the art of graphical user interfaces would adjust the size of the text to be appropriate for the screen being used. *See id.* (“One skilled in the art would size the components from Teague appropriately for Icon’s application, therefore producing an embodiment meeting Icon’s claims.”). Moreover, as Petitioner explains, Wagner does not limit its mobile phone to a particular screen size, and Nason teaches that the cartridge may be placed either horizontally or vertically. *See* Reply 31 (citing Ex. 1010, 3:2–12, 8:64–9:4; Ex. 1007, 2:22–29; Ex. 2012, 189:21–191:5).

Finally, Patent Owner argues that Nason's disclosure that its preferred operating system is Windows 98, and the fact that it is designed to be used with a CRT display, suggest that Nason's GUI is not intended to be used on a mobile phone. PO Resp. 73–74. As we determined above, Nason is not limited to use on a CRT display. Moreover, although Nason discloses that its preferred embodiment uses Windows 98, Nason states that “any appropriate conventional operating system” may be used. Ex. 1007, 2:3–8. Patent Owner's only support for this contention is the testimony of Mr. Denning. See PO Resp. 73–74 (citing Ex. 2011 ¶ 133). Given that this testimony is based, in part, on Mr. Denning's erroneous conclusion that Nason is limited to CRT displays, we give it little weight. Instead, we agree with Petitioner and Dr. Myers that evidence demonstrates that there were known operating systems (e.g., Windows CE) at the time that could run web browsers), and that a person of ordinary skill would have understood that Nason's GUI could be used on a mobile phone. Reply 31–32 (citing Ex. 1038 ¶ 34; Ex. 1032, 5–6; Ex. 1012 ¶¶ 77, 78, 80, 157, 167–169).

Thus, we find that Nason by itself and the combined teachings of Nason and Wagner both account for the limitations of claim 9. We further find that Petitioner has shown that a person of ordinary skill would have implemented Nason on a mobile phone and would have been motivated to combine Nason and Wagner in the manner proposed by Petitioner. Therefore, we find that Petitioner has shown by a preponderance of the evidence that claim 9 would have been obvious over Nason alone and also would have been obvious over Nason and Wagner.

D. CONSTITUTIONAL ARGUMENTS

In order to preserve the issues for appeal, Patent Owner raises various constitutional challenges to the *inter partes* review process. *See* PO Resp. 74–76. We agree with Petitioner, *see* Reply 32, that the constitutional challenge is without merit. *See MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1288–93 (Fed. Cir. 2015), *cert. denied*, 137 S. Ct. 292 (2016).

III. CONCLUSION

For the reasons given, based on the arguments and evidence of record, Petitioner has met its burden to prove by a preponderance of the evidence that claims 1, 4, 7–9, 20, 28, and 29 of the '476 patent are unpatentable under 35 U.S.C. § 103(a) over Schnarel and Aberg and, separately, over Nason. *See* 35 U.S.C. § 316(e). Furthermore, Petitioner has met its burden to prove by a preponderance of the evidence that claim 4 is also unpatentable over Schnarel, Aberg, and Smith. Petitioner also has met its burden to prove by a preponderance of the evidence that Claim 9 is also unpatentable over Nason and Wagner. *See id.* Petitioner has not shown by a preponderance of the evidence that claims 1, 4, 7–9, 20, 28, and 29 of the '476 patent are unpatentable under 35 U.S.C. § 103(a) over Schnarel alone, and that claim 4 is unpatentable over Schnarel and Smith.

IV. ORDER

Accordingly, it is:

ORDERED that claims 1, 4, 7–9, 20, 28, and 29 of the '476 patent are *unpatentable*; and

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

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PETITIONER:

Gabrielle E. Higgins
Kathryn N. Hong
ROPES & GRAY LLP
gabrielle.higgins@ropesgray.com
kathryn.hong@ropesgray.com

PATENT OWNER:

Wayne M. Helge
Walter D. Davis
Alan A. Wright
DAVIDSON, BERQUIST, JACKSON & GOWDEY, LLP
whelge@davidsonberquist.com
wdavis@davidsonberquist.com
awright@davidsonberquist.com