UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTERNATIONAL BUSINESS MACHINES CORPORATION,
Petitioner,

v.

INTELLECTUAL VENTURES II LLC,
Patent Owner.

Case IPR2015-00089
Patent 6,546,002 B1

Before GREGG I. ANDERSON, JON B. TORNQUIST, and ROBERT J. WEINSCHENK, *Administrative Patent Judges.*

ANDERSON, *Administrative Patent Judge*.

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

INTRODUCTION

A. Background

International Business Machines Corporation ("Petitioner") filed a Petition (Paper 2, "Pet.") pursuant to 35 U.S.C. §§ 311–319 to institute *inter partes* review of claims 1–24 of U.S. Patent No. 6,546,002 ("the '002 patent," Ex. 1004). Intellectual Ventures II LLC ("Patent Owner") filed a Preliminary Response. Paper 6 ("Prelim. Resp."). Based on these submissions, on April 27, 2015, we granted the Petition and instituted trial for claims 1, 2, 4, 6–12, 14, and 16–24 of the '002 patent. Paper 8 ("Institution Decision" or "Dec. Inst.").

After institution of trial, Patent Owner filed a Patent Owner Response. Paper 19 ("PO Resp."). Petitioner filed a Reply. Paper 27 ("Pet. Reply"). In addition, the parties rely upon expert testimony. Petitioner proffered the Declaration of Henry Lieberman ("Lieberman Declaration," Ex. 1001). Patent Owner proffered the Declaration of Dr. Tim Williams ("Williams Declaration," Ex. 2005). A transcript of the deposition of Dr. Williams ("Williams Dep.," Ex. 1032) was submitted by Petitioner. A transcript of the deposition of Mr. Lieberman ("Lieberman Dep.," Ex. 1026) taken by Patent Owner was filed as an exhibit by Petitioner.

Patent Owner filed a Motion to Exclude Under 37 C.F.R. § 42.64(c) ("Motion," "Mot.," Paper 32). Petitioner filed an Opposition to Patent Owner's Motion to Exclude ("Opposition," "Opp.," Paper 37), and Patent Owner filed a Reply to the Opposition to Motion ("Reply to Opposition," "PO Reply," Paper 38). The Motion is denied for the reasons set out below.

An oral hearing was held on January 15, 2016. The transcript of the consolidated hearing for this case and IPR 2015-00092 has been entered into the record. Paper 43 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). We conclude for the reasons that follow that Petitioner has shown by a preponderance of the evidence that claims 1, 2, 4, 6–12, 14, and 16–24 of the '002 patent are unpatentable.

B. Related Proceedings

Petitioner advises us that Patent Owner ("IV" in the case listing that follows) has asserted the '002 patent in the following seven patent infringement lawsuits, none of which name Petitioner as a defendant: (1) *IV v. PNC Fin. Servs.Grp., Inc.*, 2:13-cv-00740 (W.D. Pa.); (2) *IV v. Capital One Fin. Corp.*, 8:14-cv-00111 (D. Md.); (3) *IV v. PNC Fin. Servs. Grp., Inc.*, 2:14-cv-00832 (W.D. Pa.); (4) *IV v. Citigroup, Inc.*, 1:14-cv-04638 (S.D.N.Y.); (5) *IV v. Erie Indem. Co.*, 1:14-cv-00220 (W.D. Pa.); (6) *IV v. Old Republic Gen. Ins. Grp., Inc.*, 2:14-cv-01130 (W.D. Pa.); and (7) *IV v. Highmark, Inc.*, 2:14-cv- 01131 (W.D. Pa.). Pet. 1. Petitioner also filed a separate petition for an *inter partes* review of claims 25–49 of the '002 patent.[1] *Id.*

C. The '002 Patent

The '002 patent describes a system and method for using a mobile interface agent to access information of a user. Ex. 1004, Abstract. The '002 patent describes using a mobile interface agent that allows a user to "access documents, files, programs, applications, URL bookmarks, IP addresses, telephone numbers, television channels, radio stations, and other

[1]The co-pending petition is IPR2015-00092.

menu items from any computer." *Id.* The information accessed is specific to the user. *Id.*

Figure 15 of the '002 patent is reproduced below:

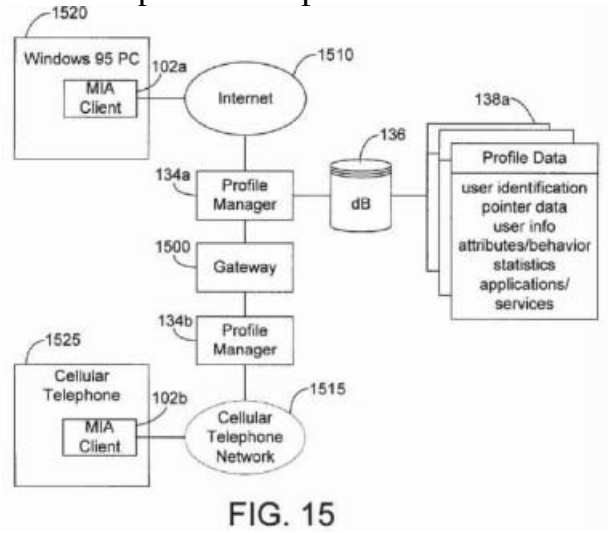


FIG. 15

Figure 15 is a block diagram showing profile managers of multiple communication networks connected by a gateway. Ex. 1004, 5:41–44. Figure 15 shows Mobile Interface Agent ("MIA") 102a running on a Windows 95 PC and MIA 102b running on a cellular telephone. *Id.* at 16:36–54. The MIA of the '002 patent allows access to "[a user's] menu items (e.g., software programs, applications, files, folders, documents, telephone numbers, radio stations, and television channels), URL bookmarks, and user profile data." *Id.* at 5:58–61.

The MIA may also "periodically update or query user profile data, facilitate the sharing of memory and data structures between applications/services both local and remote, allow various types of user interfaces to be attached (voice menu system, human-like graphical icon, etc.) and perform intelligent multi-platform conversion of application data." Ex. 1004, 5:62–67. The MIA "can be accessible using any computer from any geographical location so long as the computer can be connected to a network." *Id.* at Abstract. For example, "[t]he mobile interface agent can be accessible

using a computer, cable set top box, cellular phone, or other device from any geographical location." *Id.* at 4:44–46.

The '002 patent further explains that, during the process of initializing and creating a MIA, "MIA 102 downloads the appropriate information such as user profile, URL links, applications registered, etc. Some of the information downloaded may depend on the platform, geographical location, etc. that corresponds to the user's connection location." Ex. 1004, 14:50–54. "For example, if a user has purchased a Windows 98 only license for MS Word and moved to an Apple MacOS device, then the MS Word menu item may be disabled or not downloaded." *Id.* at 14:54–57.

Figure 1B is reproduced below:



FIG. 1B

Figure 1B illustrates a menu used by the MIA once a user has logged on to the computer. *Id.* at 5:1–3. The set of menu items included in a MIA are "associated with a user's specific configuration and profile." *Id.* at 14:33–34. The "menu items/pointers shown in the user interface can be used to access and retrieve user specific resources and information." *Id.* at 6:14–16.

D. Illustrative Claims

Method claims 1 and 11 are the two independent claims of the challenged claims and are reproduced below.

> 1. A method for retrieving user specific resources and information stored either on a local device or a network server, the method comprising the steps of:
>
> retrieving a mobile interface from the network server to the local device;
>
> displaying the mobile interface on the local device, the mobile interface including a plurality of pointers corresponding to the user specific resources and information; and
>
> retrieving the user specific resources and information using the plurality of pointers displayed on the mobile interface.

Ex. 1004, 17:9–21.

> 11. A method for retrieving user specific resources and information stored either on a local device or a network server, the method comprising the steps of:
>
> displaying the mobile interface on the local device, the mobile interface including a plurality of pointers corresponding to the user specific resources and information;
>
> retrieving user profile and configuration data from the network server to the local device, wherein the user profile and configuration data is used to update the data associated with the mobile interface;
>
> retrieving the user specific resources and information using the plurality of pointers displayed on the mobile interface.

Id. at 17:54–67.

E. Grounds Upon Which Trial was Instituted

Inter partes review was instituted on the following grounds:

(1) claims 1, 2, 7, 8, 11, 12, 17, and 18 as anticipated under 35 U.S.C. § 102 by Richardson;[2]

(2) claims 4 and 14 as obvious over under 35 U.S.C. § 103 over Richardson and Pezzullo;[3]

(3) claims 6 and 16 as obvious under 35 U.S.C. § 103 over Richardson and Davis;[4]

(4) claims 9, 19, and 21–23 as obvious under 35 U.S.C. § 103 over Richardson and Arnold;[5]

(5) claims 10 and 20 as obvious under 35 U.S.C. § 103 over Richardson and Pocock;[6]

(6) claim 24 as obvious under 35 U.S.C. § 103 over Richardson, Raman,[7] and Arnold;

(7) claims 1, 2, 8, 11, 12, and 18 as anticipated under 35 U.S.C. § 102 by Murray;[8]

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[2]Tristan Richardson, *et al.*, *Virtual Network Computing*, IEEE INTERNET COMPUTING, Vol. 2, No. 1, 33–38 Jan./Feb. 1998 ("Richardson," Exs. 1006 and 1007 (proof of publication)).

[3] U.S. Patent No. 5,615,257 to Pezzullo, et al., issued Mar. 25, 1997 ("Pezzullo," Ex. 1011).

[4] U.S. Patent No. 5,473,692 to Davis, issued Dec. 5, 1995 ("Davis," Ex. 1012).

[5] Int'l App. Publ. No. WO 98/12833 to Arnold et al., published Mar. 26, 1998 ("Arnold," Ex. 1013).

[6] Eur. Patent No. 0396062 B1 to Pocock et al., published Oct. 23, 1996 ("Pocock," Ex. 1014).

[7] T.V. Raman, *Emacspeak–A Speech Interface*, PROC. OF THE SIGCHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS, 66–71 (Apr. 1996) ("Raman," Exs. 1018 and 1019).

[8] Mark Murray and Troy Roberts, *Effective Use of Individual User Profiles with Software Distribution*, Digest of the Large Scale System,

(8) claims 6 and 16 as obvious under 35 U.S.C. § 103 over Murray and Davis;

(9) claims 7 and 17 as obvious under 35 U.S.C. § 103 over Murray;

(10) claims 9, 19, and 21–23 as obvious under 35 U.S.C. § 103 over Murray and Arnold; and

(11) claim 24 as obvious under 35 U.S.C. § 103 over Murray, Raman, and Arnold. Dec. Inst. 36.

ANALYSIS

A. Claim Construction

In *inter partes* review, claim terms are given their broadest reasonable interpretation in light of the Specification in which they appear. *See* 37 C.F.R. § 42.100(b). We presume that claim terms have their ordinary and customary meaning. *See Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016) ("Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification and prosecution history."); *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definition for a claim term must be set forth in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a special definition or other consideration, "limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

Petitioner and Patent Owner both propose constructions for the terms "mobile interface" and "pointer" as recited in claims 1 and 11. Pet. 5–8; PO

Administration of Windows NT Workshop, 1–9 (Aug. 1997) ("Murray," Exs. 1008 and 1009 (proof of publication)).

Resp. 9–13.

1. "mobile interface"

Independent claim 1 recites "retrieving a *mobile interface* from the network server to the local device" (emphasis added). Independent claim 11 includes a similar recitation, "displaying the *mobile interface* on the local device, the mobile interface including a plurality of pointers corresponding to the user specific resources and information" (emphasis added). In the Institution Decision, we preliminarily construed "mobile interface" to mean "a user interface accessible on different computing devices." Dec. Inst. 9.

Petitioner agrees with our construction from the Institution Decision and argues against adoption of Patent Owner's proposed construction. Pet. Reply. 2–4. Patent Owner proposes "mobile interface" be construed as "a user interface accessible on different computing devices and capable of dynamically accessing user-specific data on a network server and local device." PO Resp. 9–10.

Patent Owner's support for including "dynamically accessing" user-specific data as part of its proposed construction includes the following citation from the Specification:

> *The present invention is further directed to a mobile interface agent* that can be used to dynamically access resources stored either locally in the computer device or across a network including programs, applications, bookmarked URLs, user profiles, IP addresses, telephone numbers, television channels, radio stations, and the like *that are specific to a user via any computer device.*

PO Resp. 10 (citing Ex. 1004, 1:11–16). Patent Owner also relies on the Williams Declaration and other portions of the Specification that describe periodically updating and synchronizing the "profile data" and adjusting a

pointer when the user moves from a Windows 95 machine to an Apple Macintosh machine. *Id.* at 11 (citing Ex. 1004, 5:61–62, 7:52–55, 13:21–27; Ex. 2005 ¶ 39). Patent Owner concludes that "[t]he Board's construction encompasses any interface—even those that are incapable of dynamically accessing data from different devices, locations, and computing platforms." *Id.* at 12; *see also* Ex. 2005 ¶ 41 ("the Board's construction encompasses any interface").

Our preliminary construction is consistent with the Specification. For example, the Specification describes a "mobile interface agent" ("MIA"),[9] which "allows the user to access documents, files, programs, applications, URL bookmarks, IP addresses, telephone numbers, television channels, radio stations, and other menu items from *any computer that is connected to a network*." Pet. 6 (citing Ex. 1004, 4:49–54 (emphasis in Petition); *id.* at 5:58–61). The Specification also explains that the interface is "mobile" because it is accessible by a user from "any computer type device connected to the network." Ex. 1004, 4:21–24.

The parties appear to agree that the "mobile interface" is an interface that is accessible on different computing devices. Patent Owner's proposal includes the additional language "dynamically accessing user specific data on a network server and local device." Although the term "dynamically access" is used in the Specification of the '002 patent, the meaning of that term is not explained. Also, the type and location of the data being accessed already is specified in the various claims of the '002 patent. *See, e.g.*, Ex. 1001, 17:9–

[9] Patent Owner states that "mobile interface" is sometimes referred to as "mobile interface agent." Tr. 35, 9–15. Our review of the Specification supports the conclusion that the terms are used synonymously. *See, e.g.*, Ex. 1004, Abstract.

11, 19:15–18, 19:33–35. Thus, we are not persuaded that the term "mobile interface" is appropriately limited by the method of data access or by the type and location of the data being accessed.

During oral argument Patent Owner was asked why insertion of "dynamically accessing" would not constitute reading a limitation from the Specification into the claims. Patent Owner argues support is found at column 1, lines 11 through 16, of the '002 patent reproduced above, which describes the "present invention." *See* PO Resp. 10, Tr. 53:23–54:22. Petitioner points out that "the '002 [patent Specification] refers to the 'present invention' 62 times to describe aspects of the mobile interface and potential uses." Pet. Reply 3. Dr. Williams's deposition includes testimony that his construction of "mobile interface" is based on the phrase "the present invention" in the Specification. Ex. 1032, 52:9–54:13. The use of "dynamically accessing" in association with "the present invention" at one place, in the Specification does not rise to the level of a special definition set forth with clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d at 1480.

Patent Owner does not explain why the '002 patent's descriptions of periodically updating, synchronizing, and adjusting pointer data[10] are relevant to "dynamically accessing" user specific resources. *See* PO Resp. 11. The Williams Declaration does not include testimony that might support Patent Owner's position. *See* Ex. 2005 ¶¶ 36–41. Rather, the Williams Declaration repeats the citations to the Specification and lacks any discussion of what a

[10] "To the user, this process would be automatic and transparent since the user can simply click a data file, which is pointer data in his/her mobile interface agent." Ex. 1004, 3:5–8 (emphasis added). The term "pointer data" is not a claim term and has not been construed.

person of ordinary skill in the art would have understood about the term "mobile interface." *Id.*

Finally, our preliminary construction is not so broad as to encompass "any interface" but rather only an interface that is "accessible on different computing devices." We are not persuaded that it should be narrowed by inclusion of "dynamically accessing."[11] As such, our preliminary construction is the broadest reasonable construction consistent with the Specification. Thus, we adopt our preliminary construction of "mobile interface" as our final construction, namely we construe "mobile interface" to mean "a user interface accessible on different computing devices."

2. "pointer"

Independent claims 1 and 11 both recite "the mobile interface including a *plurality of pointers* corresponding to the user specific resources and information." Ex. 1004, 17:14–17 and 57–60 (emphasis added). In the Institution Decision, we preliminarily construed "pointer" as "a link or shortcut to an item." Dec. Inst. 10.

Petitioner agrees with our preliminary construction of "pointer." Pet. Reply 4. Patent Owner contends "[t]he inventor of the '002 Patent acted as his own lexicographer, defining pointer: 'A pointer in this context is a reference to a type of menu item that can be accessible on the computer, PDA or a server.'" PO Resp. 12 (citing Ex. 1004, 1:36–38, 10:8–10). According

[11] A district court likewise did not include "dynamically accessing" in its construction and construed "mobile interface" as recited in the claims of the '002 patent as "[a] user interface, accessible on various computing devices, allowing a user to access files and other data from various computing devices." Ex. 1031, 6 (Final Order Regarding Claim Construction and Patent Summaries, *IV v. Citigroup, Inc.*, 1:14-cv-04638 (S.D.N.Y. June 30, 2015), ECF No. 90).

to Patent Owner, our preliminary construction is "incomplete." *Id.* Patent Owner cites a portion of the Specification that we relied on for our preliminary construction (Ex. 1004, 9:62–11:4).[12] *Id.* Notwithstanding that, Patent Owner continues to argue that when a user activates a pointer it "accesses the corresponding item." *Id.* at 12–13 (citing Ex. 1004, 10:10–16). Patent Owner then argues the Specification explains that the accessed item "can be accessible on the computer, PDA or a server," thereby supporting its proposed construction. *Id.* at 12–13 (citing Ex. 1004, 1:36–38, 10:8–10).

The Specification states "[a] user interface in an [Operating System (OS)] generally includes 'pointers' to software programs, applications, files, folders, documents, and other menu items. *A pointer in this context is a reference to a type of menu item that can be accessible on the computer, [Portable Digital Assistants (PDA)] or a server*." Ex. 1004, 1:34–38 (emphasis added). The Specification describes that pointers are found on the "Start" menu bar and provide "a link to folders, files, and programs (e.g., a word processing program)." *Id.* at 1:39–47. The Specification concludes with: "As discussed earlier, *a pointer is a link/shortcut to an item* such as a file, URL, IP address, telephone number, television channel, radio station, application, or service." *Id.* at 10:8–10 (emphasis added).

We are not persuaded that the construction proposed by Patent Owner represents the broadest reasonable construction of the term "pointer," as described in the '002 patent. The '002 patent discusses a broad array of electronic devices that may be used in conjunction with the mobile interface agent, including "a computer, cable set top box, cellular phone, or other device." *Id.* at 4:44–45. Patent Owner does not explain why the description

[12] Dec. Inst. 10 (citing Ex. 1004, 10:8–10).

of a "pointer" in one particular "context," i.e., on a computer or PDA, indicates a clear intent to require that all pointers be "a reference to a type of menu item" or "accessible on a computer, PDA, or server." Accordingly, we apply the broadest definition of the term provided in the '002 patent: "a link or shortcut to an item." Ex. 1001, 10:8–10 ("As discussed above, a pointer is a link/shortcut to an item such as . . . .").

At oral argument, Patent Owner represented that "a proper understanding" of our preliminary construction can "get you to the same place" as our preliminary construction. Tr. 37:4–8. Additionally, counsel argued it is important that there be a "reference" to an item, rather than only "a visual representation of an icon." *Id.* at 37:14–21, 36:2–5. We do not adopt Patent Owner's proposed construction of "pointer" and disagree that our preliminary construction requires a "reference" to an item. Neither do we agree that "a visual representation of an icon" is unequivocally not an icon. To say that our preliminary construction requires a "reference" is another way of reading one isolated sentence of the Specification into the construction. We decline to import limitations from the Specification into the claims. *See, e.g.*, *Superguide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004).

The record also includes extrinsic evidence that a pointer is understood in the computer field to mean "[a] data item that specifies the location of another data item." *IEEE Dictionary*, 785 (6th Ed., 1996), Ex. 2001. It is unnecessary to rely on extrinsic evidence to reach our construction when the term can be "understood from a careful reading of the public record." *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584 (Fed. Cir. 1996).

In sum, adopting Patent Owner's construction requires importation of limitations from the Specification which are unnecessary to achieve the

correct construction. Thus, our preliminary construction is the broadest reasonable construction consistent with the Specification and we adopt our preliminary construction of "pointer" as our final construction. Specifically, we construe the term "pointer" to mean "a link or shortcut to an item."

B. Analysis of Anticipation Grounds Based on Richardson

In order for a prior art reference to serve as an anticipatory reference, it must disclose every limitation of the claimed invention, either explicitly or inherently. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). We must analyze prior art references as a skilled artisan would. *See Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991) (to anticipate, "[t]here must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention"), *overruled on other grounds by Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282 (Fed. Cir. 2009). As the Federal Circuit has held:

> This modest flexibility in the rule that "anticipation" requires that every element of the claims appear in a single reference accommodates situations where the common knowledge of technologists is not recorded in the reference; that is, where technological facts are known to those in the field of the invention, albeit not known to judges. It is not, however, a substitute for determination of patentability in terms of § 103.

Cont'l Can Co. USA v. Monsanto Co., 948 F.2d 1264, 1268–69 (Fed. Cir. 1991).

1. Richardson (Ex. 1006)

Richardson describes a Virtual Network Computing ("VNC") system where an entire desktop environment can be accessed from any Internet-connected machine. Ex. 1006, 33.[13] A Network Computer ("NC") "aims to

[13] Page references are to the page numbers in Richardson and not the exhibit

give users access to centralized resources from simple inexpensive devices." *Id.* In the VNC system, the server is accessed in the same way as a NC but the server also supplies "an entire desktop environment that can be accessed from any Internet-connected machine using a simple *software* NC." *Id.*

"The technology underlying the VNC system is a simple protocol for remote access to graphical user interfaces." *Id.* at 35. Because it works at the framebuffer level, the protocol "applies to all operating systems, windowing systems, and applications—indeed to any device with some form of communications link." *Id.*

Figure 1 of Richardson is reproduced below:

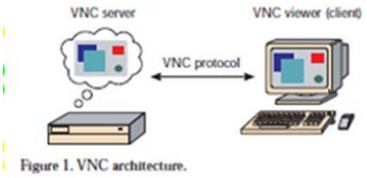
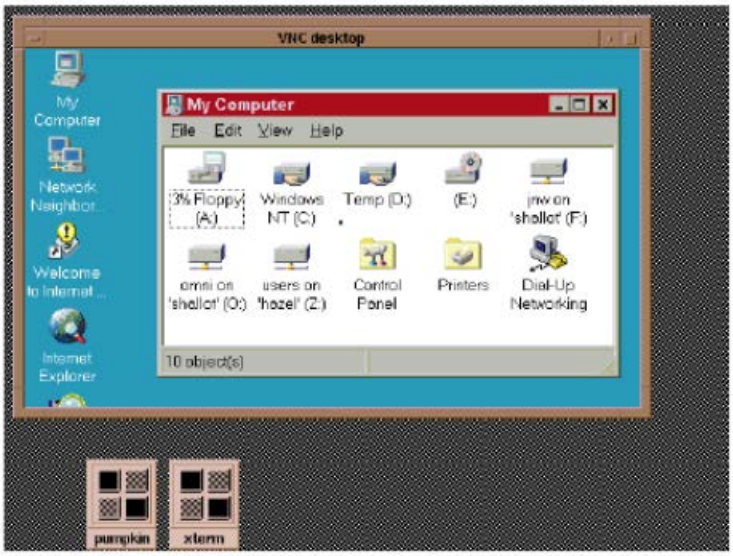


Figure 1. VNC architecture.

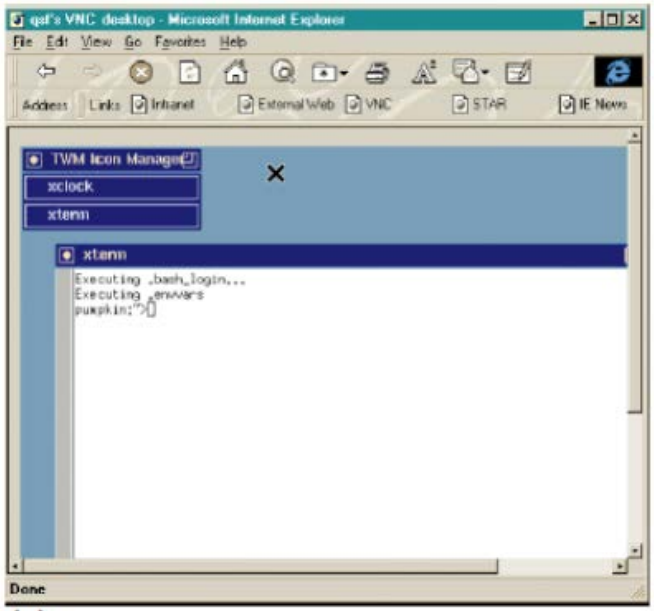
Figure 1 illustrates the VNC architecture. The VNC client interacts with the display and/or input devices. Ex. 1006, 35. The VNC server is the endpoint where changes to the framebuffer originate. The client inputs to the server when the "user presses a key or pointer button." *Id.*

Figures 2(b) and 2(c) of Richardson are reproduced below.

page numbers provided by Petitioner.



(b)



(c)

Figure 2(b) illustrates "a Windows 95 desktop from an X viewer. Ex. 1006, 36. Figure 2(c) illustrates "a Unix desktop from a Java applet within Internet Explorer." *Id.*

The viewers may access the user's personal computing environment. Ex. 1006, 36. Richardson provides various examples of user desktops being accessed from different viewers using the VNC system. *Id.* at Fig. 2. Any

user interface may be accessed, including CDs, video recorders, telephone answering machines, and car stereos or GPS receivers. *Id.* at 36–37. Using the remote access protocol, a mobile phone could be used to access the devices. *Id.* at 37.

2. Independent Claims 1 and 11 as Anticipated by Richardson

Patent Owner identifies two limitations from claims 1 and 11 and an additional limitation from claim 11 that Patent Owner argues are not disclosed by Richardson. *See* PO Resp. 13. As to the remaining limitations of claims 1 and 11, we are persuaded Petitioner has shown sufficiently that they are present in Richardson. *See* Pet. 12–19, 20–23 and 25–26 (claim chart); Ex. 1001 ¶¶ 62–94. Our analysis of Patent Owner's arguments relative to claims 1 and 11 are addressed below.

a. "the mobile interface including a plurality of pointers"

Both claims 1 and 11 recite "the mobile interface including a plurality of pointers" ("the pointer limitation"). Petitioner cites Richardson's disclosure of retrieving the "entire desktop environment" from the VNC server, i.e., "network server," to the client or viewer, i.e., "local device." Pet. 14 (citing Ex. 1006, 33, 35). According to Petitioner, the recited "mobile interface" is met by the user's desktop because it "can be accessed from any Internet-connected machine." *Id.*

Premised on the user's desktop being the "mobile interface," Petitioner argues Figure 1 of Richardson (shown above) depicts "the VNC viewer (client) is the local device that displays the user's mobile desktop." Pet. 15 (citing Ex. 1006, Fig. 1; Ex. 1001 ¶ 75). Richardson's Figure 2(b) depicts using the VNC system to access a Windows 95 desktop, including a number of icons such as "My Computer" and "Internet Explorer." *Id.* (citing Ex. 1006, 36, Fig. 2). Citing the preceding disclosure, Petitioner contends "[o]ne

having ordinary skill in the art would have understood that the icons on the Windows desktop are pointers because they provide links such that when the user clicks on an icon, the computer retrieves the corresponding resources and information." *Id.* at 16 (citing Ex. 1001 ¶ 78).

Patent Owner argues Richardson does not disclose the "pointer limitation" and cannot anticipate claims 1 and 11. PO Resp. 13, 16, 18–22; Tr. 36:15–22, 40:17–43:17. Patent Owner identifies two reasons supporting its position. First, Patent Owner argues "the VNC desktop displayed at the VNC client—the alleged 'mobile interface'—does not include pointers." PO Resp. 18. Second, "the VNC desktop displayed at Richardson's VNC client does not dynamically access user-specific data." *Id.* These arguments are based, in part, on Patent Owner's proposed constructions of "pointer" and "mobile interface." As discussed above, we do not adopt Patent Owner's proposed constructions.

Patent Owner argues Richardson operates differently than the claimed invention because "[w]hen the VNC client user clicks on an icon, the client computer does not retrieve resources and information; it merely transmits a click event for a given *x-y* display coordinate." PO Resp. 19 (citing Ex. 2005 ¶ 53). If any "changes occur as a result of the click event," the VNC server only sends updated screenshots to the VNC client. *Id.* at 19–20 (citing Ex. 2005 ¶ 53). Patent Owner argues Richardson's VNC client transmits an x-y coordinate "regardless of whether the click coincides with an icon or menu item." *Id.* Based on the preceding, Patent Owner argues Richardson does not disclose a "pointer" under our construction of "pointer" as "a link or shortcut to an item." *Id.* at 20.

The Williams Declaration testimony is that a VNC system, such as Richardson, takes messages from a client mouse or keyboard and

communicates "screen change rectangles" between the VNC client and server. Ex. 2005 ¶ 56. Relying on this testimony, Patent Owner argues that the use of the x-y coordinates in Richardson are not "pointers" but merely "graphics primitives." PO Resp. 21–22 (citing Ex. 1006, 35; Ex. 2005 ¶ 56). Thus, Patent Owner concludes the VNC system of Richardson, i.e., the "mobile interface," also does not include pointers. *Id.* at 22.

In sum, Patent Owner argues that "a visual representation of an icon that, when resolved elsewhere–at the server, for instance" is not a pointer. *See* Tr. 37:22–38:5; *see also id.* at 41:8–21 (Richardson's information "resides at the server"), 45:13–46:2 (Richardson does not bring the "resource down to the mobile interface"). Part of Patent Owner's contention regarding Richardson is that "the client computer does not retrieve the MS Word document when the icon is clicked, nor does the icon refer to the MS Word document." PO Resp. 7 (citing Ex. 2005 ¶ 57).

These arguments are not persuasive because the claims do not specify where the "pointer" is resolved. Thus, the location where an application is resolved or executed, whether it is the client or the server, does not distinguish Richardson from the claims. For example, claim 1 recites that the "pointers correspond[] to the user specific resources and information." *See* Ex. 1004, 17:14–17. Indeed, the Specification states that "pointer data" "may exist either locally in the computer device or may exist as a resource accessible across a network." *See* Pet. Reply 14 (citing Ex. 1004, 8:42–44, Fig. 15 (depicting remote database 136 storing "pointer data")).

We are not persuaded that the fact that Richardson's client transmits x-y coordinates or "screen change rectangles" means that Richardson falls outside our construction of "pointer." Fundamentally, computer displays, networked or not, use "pixels to display graphics, and the x-y location of the cursor is

used to handle events." Pet. Reply 16 (citing Ex. 1022, 48:14–49:9; Ex. 1037 (US 5,917,486) at 1:9–56). There is no dispute that a VNC system, like Richardson, communicates between the VNC client and server. *See* PO Resp. 21 (citing Ex. 2005 ¶ 56).[14]

Patent Owner contends our construction of pointer "requires a reference or pointer data so that the item can be retrieved." PO Resp. 20 (citing Ex. 2005 ¶ 54 (citing *IEEE Dictionary*, 785 (1996), (6th Ed. Ex. 2001)); *see* Tr. 37:4–8. This argument is unpersuasive for reasons detailed in our construction analysis of "pointer." We declined to import extrinsic evidence into the construction of "pointer."

We rejected Patent Owner's proposed construction of "pointer" and construed "pointer" as "a link or shortcut to an item." We credit the Lieberman Declaration and testimony that the icons on the desktop of Richardson are links or shortcuts to applications or items, meeting our construction of "pointers." *See* Ex. 1001 ¶ 78. We find nothing inconsistent with this conclusion in the Williams Declaration relating to the functionality of VNC systems.

Claim 11 is very similar to claim 1 and identical as to the "mobile interface . . . plurality of pointers" limitation. Patent Owner does not differentiate the "pointer limitation" as between claims 1 and 11. We therefore determine that Petitioner has shown sufficiently that Richardson discloses the "pointer limitation" in both claim 1 and claim 11.

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[14] The Williams Declaration and the Response at page 21 reproduce Figure 4 of Global Teleporting with Java ("Global Teleporting") as exemplary of a VNC system. Ex. 2005 ¶ 56. While the discussion of Figure 4 of Global Teleporting has similarities to the VNC architecture disclosed in Richardson, Patent Owner does not explain how such similarities establish patentability over Richardson nor are any new arguments raised by the discussion.

b. "retrieving the user specific resources and information using the plurality of pointers displayed on the mobile interface"

Both claims 1 and 11 recite "retrieving the user specific resources and information using the plurality of pointers displayed on the mobile interface" (the "retrieving limitation"). The retrieving limitation is met, according to Petitioner, in Richardson's disclosure that the user "sends input events to the server whenever the user presses a key or pointer button" on the "keyboard [or] multibutton pointing device." Pet. 16–17 (citing Ex. 1006, 35). Further, Petitioner argues "one having ordinary skill in the art would have understood that the user retrieved the 'My Computer' window by clicking on the 'My Computer' icon displayed on the VNC desktop." *Id.* at 16–17 (citing Ex. 1001 ¶¶ 80–84).

Patent Owner argues Richardson does not disclose the "retrieving limitation" for two reasons. PO Resp. 22. The first reason is that Richardson does not disclose "the plurality of pointers." *Id.* Patent Owner acknowledges this argument was made as set forth above in Section II.B.2.a. *Id.* Patent Owner does not present any additional arguments for our consideration. *Id.* No additional analysis is required and we refer to the previous discussion concluding that "the plurality of pointers" are disclosed by Richardson.

The second reason is that Richardson's VNC client does not "retriev[e] . . . user specific resources and information." PO Resp. 23. Patent Owner again states Richardson's operation differs from the "retrieving limitation" because the information communicated between the server and the client of Richardson's VNC is "pixel data at a given x, y position." *Id.* (citing Ex. 1006, 35). Citing the Williams Declaration, Patent Owner contends Richardson's server sends its client only a display of the Microsoft Word application. *Id.* (citing Ex. 2005 ¶ 65). According to Patent Owner, the Word

application itself does not run on the client, which receives only screen shots of the Word application. *Id.*

Richardson discloses retrieval of a graphical interface. Ex. 1006, 35 ("The display side of the protocol is based on a single graphics primitive: Put a rectangle of pixel data at a given x, y position."). Patent Owner does not dispute that the graphical interface is retrieved, but argues that the graphical interface is not a "user-specific resource." PO Resp. 23. We agree with Petitioner that Patent Owner "fails to explain how the claim language allegedly excludes retrieving a graphical representation of the Microsoft Word application." Pet. Reply 17. Petitioner also points to the '002 patent Specification which describes that "running applications remotely is within the scope of retrieving resources." *Id.* at 17–18 (citing Ex. 1004, 13:48–52 (describing that Microsoft Word "could be run remotely and the display interface returned to the user")). *Id.* Thus, running the application on the server and retrieving a graphical display of the application is within the scope of the challenged claims.

Richardson's VNC system is more than just a display of the user's desktop from a server on the client. Richardson "applies to all operating systems, windowing systems, and applications—indeed to any device with some form of communications link." Ex. 1006, 35. "The endpoint with which the user *interacts* (that is, the display and/or input devices) is called the *VNC client* or *viewer*." *Id.* (emphasis added). Richardson discusses this interaction by its disclosure that the user "sends input events to the server whenever the user presses a key or pointer button" on the "keyboard [or] multibutton pointing device." *Id.* We are not persuaded that Richardson's disclosure that the server sends its client only a display of a user specific resource precludes it from disclosing the "retrieving limitation."

Petitioner has shown sufficiently that Richardson discloses the "retrieving limitation" of claims 1 and 11.

> *c.* "*retrieving user profile and configuration data from the network server to the local device, wherein the user profile and configuration data is used to update the data associated with the mobile interface*"

Claim 11 recites "retrieving user profile and configuration data . . . wherein the user profile and configuration data is used to update the data associated with the mobile interface." Claim 1 does not recite this limitation.

Petitioner argues that a user's "pointer data" is an example of the claimed user "profile data." Pet. 18 (citing Ex. 1002, 8:23–44). Petitioner then argues that Richardson discloses retrieval of the user's desktop, including "user pointer" data, i.e., "user profile" data. *Id.* at 17–18 (citing Ex. 1006, 35, 36; Ex. 1001 ¶ 91). Petitioner argues Richardson also discloses "retrieving configuration data" by disclosing that, upon access to a VNC desktop, "its state and configuration (right down to the position of the cursor) are exactly the same as when it was last accessed." *Id.* at 18 (citing Ex. 1006, 35–36).

Petitioner contends Richardson discloses that "the VNC desktop is updated continuously based upon the user's inputs." Pet. 18 (citing Ex. 1006, 35; Ex. 1001 ¶ 93). Thus, "[o]ne having ordinary skill in the art at the time of the alleged invention would have understood Richardson to disclose that when a user modifies the icons on the user's desktop (i.e., the user profile data) and the arrangement of items on the user's 'Start' menu (i.e., configuration data), the VNC server sends an 'update' to the client, which displays the updated data." *Id*. (citing Ex. 1006, 35; Ex. 1001 ¶ 93.)

Patent Owner argues Petitioner does not quote from Richardson for its contention that the user's desktop includes pointer data. PO Resp. 24. Patent Owner also repeats its argument that the VNC desktop icons are merely

"displayed" and are neither "pointers" nor do they include "pointer data," i.e., "user profile data." *Id.* (citing Ex. 2005 ¶ 68).

Patent Owner argues that Richardson "does not disclose that the state and configuration data is retrieved 'from the network server to the local device,' as required by independent claim 11." PO Resp. 25 (citing Ex. 1006, 35; Ex. 2005 ¶¶ 69–70). Patent Owner's argument is that "user profile and configuration data" is not sent to the VNC client of Richardson because the user's desktop is merely a screenshot from the server. *Id.* As a result, according to Patent Owner, "user profile and configuration data" is not sent from the server to the client. *Id.* This alleged operational distinction is not borne out in the claim language. The claim language in question, "retrieving user profile and configuration data from the network server to the local device," does not prescribe how the data is retrieved, only that it is retrieved. Neither does the claim language dictate the form in which the data is retrieved, such as a graphical representation.

Patent Owner also disputes the assertion that Richardson discloses "wherein the user profile and configuration data is used to update the data associated with the mobile interface." PO Resp. 25–26. This argument is based on Patent Owner's position that screen shots at the client are not "user profile and configuration data" because they do not occur at the server. *Id.* at 26. Patent Owner adds that modifications and arrangements of icons on the "Start" menu also are not "user profile and configuration data." *Id.* (citing Ex. 2005 ¶ 72). Moreover, Patent Owner argues any update occurs at the server and not at the local device, i.e., the client. *Id.*

These arguments are not persuasive. Petitioner does not rely on Richardson to disclose "pointer data," and thus "user profile data," but rather what would be understood by a person of ordinary skill from Richardson. *See*

Pet. 17–18 (citing Ex. 1006, 35, 36; Ex. 1001 ¶ 91). We have already found as a factual matter that a visual representation of an icon, as disclosed in Richardson, meets our construction of a "pointer." We have also found that where the "user specific resources and information" are located is not recited in either claim 1 or claim 11. *See* Section II.B.2.a. ("[T]he location where an application is resolved or executed, whether it is the client or the server, does not distinguish Richardson from the claims.").

The Williams Declaration is conclusory on the limitation in question, merely denying that Petitioner has made the requisite showing. Further, it does not specifically address our construction of "pointer." As a factual matter, we found above that the desktop icons of Richardson are "pointers." We credit the Lieberman Declaration that the person of ordinary skill in the art would understand that desktop icons are "pointers," which include "pointer data." Specifically, Mr. Lieberman relies on examples of "user profile data" in the '002 patent. Ex. 1001 ¶ 90 (citing Ex. 1004, 8:23–27 ("profile data 138a, 138b includes information relating to different fields of a particular user. These fields include . . . pointer data 172 . . . "). Thus, the claimed "user profile" is disclosed in Richardson.

We disagree with Patent Owner and determine Richardson shows that "user profile and configuration data" are retrieved from the "network server to the local device" as recited in claim 11. *See* PO Resp. 25 (citing Ex. 2005 ¶ 70). Richardson discloses retrieving a user's desktop. Ex. 1006, 35 and 36; *see* Ex. 1001 ¶ 91. We determined above that the desktop icons are "pointers" and that the "pointers" include "profile data," i.e., the claimed "user profile."

Richardson also discloses that upon access to a VNC desktop, "its state and configuration (right down to the position of the cursor) are exactly the same as when it was last accessed." Ex. 1006, 33; *see* Ex. 1001 ¶ 92. As

discussed above, given Richardson's disclosure that the VNC desktop's "state and configuration" at the server are exactly the same at the client as when last accessed, we are persuaded that Richardson's retrieval of a "screenshot (framebuffer update)" is retrieval of "configuration data." We see no distinction that can be drawn between 1) accessing "user specific resources" at the network level and running them at the client level; and 2) accessing and running them at the network level and then transmitting a screen shot to the client of the result. In either event the resource is retrieved from the server to the local device. That the retrieved resource is a graphical representation, i.e., screenshot, is Patent Owner's only argument to the contrary. *See* PO Resp. 25 (citing Ex. 2005 ¶ 70). We are persuaded that Richardson discloses that in the mobile interface, i.e., the desktop, "state and configuration" data is updated each time the desktop is accessed.

Patent Owner's argument that Richardson only shows updating the user's desktop, which includes the "user profile and configuration data," at the server, is not persuasive because claim 11 does not specify where the update of data "associated with the mobile interface" occurs. *See* Ex. 1001, 17:63–64. We are persuaded that Petitioner has shown sufficiently that the "user profile and configuration data" is disclosed in Richardson as being retrieved from the server to the VNC client.

d. Summary

Petitioner has shown by a preponderance of the evidence that claims 1 and 11 are anticipated by Richardson.

3. Dependent Claims 2 and 12 as Anticipated by Richardson

Claims 2 and 12 depend from claims 1 and 11, respectively, reciting additionally "wherein the user specific resources and information comprise

programs, applications, files, documents, bookmarked URLs, and user profiles" ("URL limitation"). Ex. 1004, 17:22–24, 18:1–4. Patent Owner alleges Richardson does not disclose the limitation and therefore does not anticipate claims 2 and 12. PO Resp. 2, 27–29.

Petitioner relies on Figures 2(b) and 2(c) of Richardson and the Lieberman Declaration as evidence that the URL limitation is disclosed. Pet. 18 (citing Ex. 1006, Figs. 2(b), 2(c); Ex. 1001 ¶¶ 96–106), 23–24 (claim chart). Figure 2(b) depicts the VNC desktop and an icon for Internet Explorer. *Id.* The icon for Internet Explorer is "a program and application, and contains 'Links' to bookmarked URLs." *Id.* (citing Ex. 1006, Fig. 2; Ex. 1001 ¶ 100 ("[a] person of ordinary skill in the art at the time of the filing the alleged invention would have further understood that Internet Explorer stores bookmarked URLs.")). Petitioner argues above that the Specification of the '002 patent lists "pointer data" as part of "user profile data." *See* Ex. 1004, 8:23–44, Fig. 3. Petitioner asserts that the VNC desktop of Richardson is the user's personal desktop and contains user profile data, such as the user's pointer data. *Id.* at 19 (citing Ex. 1006, 33, Fig. 2; Ex. 1001 ¶ 102).

Patent Owner again argues Richardson does not include user profile data because it only displays such data. *Id.* at 29. As discussed above, the display of data on the desktop is the retrieval of user specific data. Also, as discussed above in connection with claim 11, the retrieved display of the user desktop of Richardson includes "pointer data." No argument is offered by Patent Owner that might cause us to include any additional analysis in connection with this argument.

Patent Owner acknowledges that Richardson discloses using the VNC system to access "personal computing environments." PO Resp. 28. But Patent Owner argues the Internet Explorer window in Figure 2(c) is not a user-

specific Internet Explorer window since it is "used by lab members to access their personal computing environments." PO Resp. 28 (citing Ex. 2005 ¶ 75). Nevertheless, the '002 patent specification describes a user's personal environment as user-specific. *See* Pet. 9; Ex. 1004 at 2:35–40. Dr. Williams also concurs with this contention of Petitioner. *See* Pet. Reply 21 (citing Ex. 1032, 145:5–9 ("Well, for example, if you have 911 on your machine and I have 911 on my machine, it's the same pointer to a telephone number, but it would be specific to the user because it's in that user's environment.")). Thus, Richardson's bookmarked URLs are "user specific resources and information."

Figure 2(c) is cited by Petitioner for the purpose of showing what would have been understood by a person of ordinary skill from the Internet Explorer icon depicted in Figure 2(b) of Richardson. Pet. Reply 22 (citing Pet. 18; Ex. 1001 ¶ 100). Patent Owner points to the alleged inability of Mr. Lieberman to specify certain functionality of the icons in Figure 2(c) as support for its position. PO Resp. 28–29 (citing Ex. 1029, 92–93). The fact that Mr. Lieberman did not testify about the specifics of Figure 2(c) is not dispositive of the issue at hand. We give the testimony weight to the extent it explains what would have been understood by a person of ordinary skill about Figure 2(b) from what is additionally shown in Figure 2(c), i.e., "[a] person of ordinary skill in the art at the time of the filing the alleged invention would have further understood that Internet Explorer stores bookmarked URLs." Ex. 1001 ¶ 100.

We have reviewed the Williams Declaration as to claims 2 and 12. Ex. 2005 ¶¶ 73–76. Dr. Williams testifies specifically that neither Petitioner nor Mr. Lieberman "address[es] whether the 'bookmarked URLs' [of Figure 2(b)] are *user-specific* resources and information." Ex. 2005 ¶ 74. However,

Petitioner's evidence is that the icon for Internet Explorer is "a program and application, and contains 'Links' to bookmarked URLs." Pet. 18–19 (citing Ex. 1006, Fig. 2; Ex. 1001 ¶¶ 100, 102). Dr. Williams does not address this evidence. We find that the user's desktop of Richardson includes programs and applications that are user-specific resources.

Petitioner has shown by a preponderance of the evidence that claims 2 and 12 are anticipated by Richardson.

*4. Dependent Claims 7, 8, 17, and 18 as Anticipated by Richards*on

Claims 7 and 8 depend from claim 1. Claims 17 and 18 depend from claim 11. Claims 7 and 17 both recite retrieving user profile and configuration information "via the Internet." Claims 8 and 18 both recite retrieving that same information "via one of a LAN, a MAN, and a WAN." Petitioner argues these limitations are disclosed in Richardson. Pet. 19–20. We are persuaded that the limitations of claims 7 and 8 are further disclosed by Richardson, as shown in Petitioner's claim chart for those claims. Pet 24. Patent Owner makes no argument in its Response relative to claims 7, 8, 17, and 18.

Petitioner argues Richardson discloses that the step of retrieving the "mobile interface agent user profile and configuration data via the Internet," as recited in claims 7 and 17. Pet. 19 (citing Ex. 1001 ¶¶ 109–115), 24 (claim chart). Richardson describes that the VNC desktop "can be accessed from any Internet-connected machine." *Id.* (citing Ex. 1006, 33). As determined above, the VNC desktop includes user profile and configuration data. By reason of its dependency from claim 11, claim 17 recites retrieving the "user profile and configuration data" rather than the "mobile interface," as recited in claim 7. For reasons discussed in connection with claim 11, Richardson discloses retrieving "user profile and configuration data," as recited in claim 11, as well as retrieving the "mobile interface," as recited in claim 7.

As to claims 8 and 18, Petitioner cites, among other things, to the Lieberman Declaration. Pet. 19–20 (citing Ex. 1001 ¶¶ 118–125), 24–25 (claim chart). Richardson discloses retrieving the VNC desktop using "any Internet-connected machine." Ex. 1006, 33. Petitioner argues that "[b]ecause the Internet is a global network, it covers a wide geographical area and is thus an example of a WAN." *Id.* (citing Ex. 1001 ¶ 121). For reasons discussed in connection with claim 11, Richardson discloses retrieving "user profile and configuration data" recited in claim 11, as well as retrieving the "mobile interface" recited in claim 7.

Petitioner has shown by a preponderance of the evidence that claims 7, 8, 17, and 18 are anticipated by Richardson.

5. Summary of Anticipation Grounds Based on Richardson

Petitioner has shown by a preponderance of the evidence that claims 1, 2, 7, 8, 11, 12, 17 and 18 are anticipated by Richardson.

C. Analysis of Obviousness Grounds Based on Richardson

A claim is unpatentable, under § 103(a), if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

After setting forth the factual inquiries regarding who is a person of ordinary skill in the art (Ex. 1001 ¶¶ 37–39), Mr. Lieberman testifies that "a

person having ordinary skill in the relevant art at the time of the alleged invention is a person with a Bachelor of Science degree in Computer Science, Mathematics, Computer Engineering, Electrical Engineering, or other similar degree and one (1) year of related work experience." Ex. 1001 ¶ 40. Dr. Williams's testimony about the level of ordinary skill omits "[m]athematics," but is otherwise all but identical. Ex. 2005 ¶ 26. Neither party raises an issue as to what the level of ordinary skill is. Petitioner's proposal is factually based and reasonable and we adopt it for purposes of this Decision.

Petitioner alleges claims 4, 6, 9, 10, 14, 16, 19, 20, and 21–24 are obvious over Richardson and additional prior art references. Pet. 28–38. The Petition is supported by the Lieberman Declaration. Ex. 1001 ¶¶ 148–230.

1. Claims 6 and 16 as Obvious over Richardson and Davis

Claims 6 and 16 depend respectively from claims 1 and 11, and include the same limitation, namely "licensing the user specific resources to a user based on a per user licensing model." Petitioner has provided evidence that the combination of Richardson and Davis teaches the limitations of claims 6 and 16, including a claim chart. Pet. 29–30 (citing Ex. 1012, 1:59–2:21, 2:49–50; Ex. 1001 ¶ 164), 31 (claim chart). Patent Owner does not contest that Richardson and Davis teach these limitations (including a per user licensing model), but argues claims 6 and 16 are patentable for reasons already argued in connection with claims 1 and 11. PO Resp. 29. In addition, Patent Owner contends a person of ordinary skill in the art would not have been motivated to combine the licensing scheme of Davis with the VNC of Richardson. PO Resp. 29–30.

Petitioner argues Richardson teaches retrieving user specific resources and information, including the user's software applications. Pet. 30. Petitioner argues "Davis discloses user-specific software licenses" that are

"enforced using a user-specific dongle."[15] *Id.* Thus, according to Petitioner, "[o]ne having ordinary skill in the art at the time of the alleged invention would have understood that because the user-specific software licenses are directed toward individuals and are enforced using a local dongle, they are per user licensing models." *Id.* (citing Ex. 1001 ¶ 164).

Petitioner specifically argues one of ordinary skill in the art would have combined Richardson and Davis to "allow a user access to his or her programs from any computer under a single license." Pet. 30 (citing Ex. 1001 ¶¶ 170–171). Petitioner supports the conclusion above by asserting that neither Richardson nor Davis is limited to a particular device and, because the desktop of Richardson is personal to the user and not limited to a particular device, a person of ordinary skill in the art "would have found it straightforward and commonsensical" to obtain Davis's user licenses that are likewise personal to the user. *Id.* (citing Ex. 1001 ¶¶ 170–171).

Patent Owner argues the combination would not have been obvious because the proposed additions from the Davis reference "would not have improved the VNC client of Richardson" and would have frustrated the thin-client goals of Richardson and would not have been obvious to try and would not have improved the VNC client of Richardson." PO Resp. 30 (citing Ex. 2005 ¶ 78). Patent Owner's argument is based on "[a] stated goal of Richardson's VNC system is to 'achieve[ ] mobile computing without requiring the user to carry computing hardware.'" *Id.* at 31 (citing Ex. 1006, 34). Furthermore, Patent Owner argues the VNC protocol would need to be modified to carry the dongle on the client of Richardson. *Id.* (citing Ex. 2005 ¶ 79). Patent Owner concludes that adding functionality and complexity to

[15] A "dongle" is a "piece of hardware connected to computers" to enforce software licenses. Ex. 1032, 149:19–150:14.

the VNC client of Richardson would not have been obvious to a person of ordinary skill in the art. *Id.*

Petitioner's Reply points out that Patent Owner is arguing about the dongle enforcement mechanism taught by Davis when Petitioner cited Davis only to disclose per-user licenses and not "one enforcement mechanism for those per-user licenses (i.e., a dongle)." Pet. Reply 24. We agree with Petitioner that Patent Owner's argument is not relevant to the claim language, which does not recite anything about enforcement mechanisms or dongles. *See id.* Further to the point, Davis' disclosure of user-specific software licenses does not require the presence of dongles. *Id.* (citing Ex. 1012, 1:59–61). Dr. Williams also testified that there are other ways to enforce software licenses that do not include dongles. Ex. 1032, 150:5–14.

Petitioner has shown by a preponderance of the evidence that claims 6 and 16 would have been obvious over Richardson and Davis.

2. Claims 9, 19, and 21–23 as Obvious Over Richardson and Arnold

Claims 9 and 19 depend from claims 1 and 11, respectively. Both claims recite "retrieving the user profile and configuration data from the network server comprises the step of retrieving the user profile and configuration data via a cellular network." Claim 21 depends from claim 11 and recites "exporting user profile and configuration data from a first network to a second network." Claims 22 and 23 depend from claim 21. Claim 22 recites "wherein the first network comprises an Internet network and the second network comprises one of a cellular network and a telephone network." Claim 23 recites "wherein the first network comprises one of a cellular network and a telephone network and the second network comprises an Internet network."

As to claims 9 and 19, Petitioner relies on Arnold for its teaching that users may retrieve data from the Internet to their personal computers via a cellular network. Pet. 31–33 (citing Ex. 1013, 1:4–8, 8:1–29, 10:27–30, Fig. 1), 33–35 (claim chart). Petitioner argues "the VNC system of Richardson teaches that the VNC protocol could be used on 'any device with some form of communications link,' including 'on a mobile phone.'" Pet. 33 (citing Ex. 1006, 35, 37). Petitioner relies on the disclosures of Richardson cited in connection with claims 9 and 19 to show the limitations of claims 21 through 23. *Id.* at 32–33. According to Petitioner, "one having ordinary skill in the art would have found it straightforward and commonsensical to allow, as in Arnold, a user to send or receive his desktop even where a direct connection to the Internet is unavailable, such as on a cellular device connected to a cellular network." *Id.* (citing Ex. 1001 ¶¶ 206–207).

Relying on its prior arguments relating to claims 1 and 11, Patent Owner again does not contest that the combination of Richardson and Arnold teaches the additional limitations of claims 9, 19, and 21–23. PO Resp. 32. Patent Owner does dispute that a person of ordinary skill in the art would combine Richardson and Arnold. *Id.* Patent Owner contends "Arnold's cellular network would not have provided the reliable transport for Richardson's VNC system due to two limitations: (i) high bit error rates; and (ii) low bit rates." *Id.* Patent Owner relies on the Williams Declaration to establish that cellular networks like Arnold "[d]uring the 1999 timeframe of the '002 patent" had high bit rate errors. *Id.* at 32–33 (citing Ex. 2005 ¶ 82). According to Patent Owner, because Richardson's VNC system's sends screen shots to the client, the display would have been of poor quality as a result of bit rate errors. *Id.* at 33 (citing Ex. 2005 ¶ 83). Patent Owner also relies on the Williams Declaration to establish that bit rates for cellular networks were

low at the time the '002 patent. *Id.* at 33 (citing Ex. 2005 ¶ 84). Patent Owner concludes that because screen shots are sent between the VNC server and client of Richardson the use of Arnold's cellular network would have resulted in "a long latency to display the screenshot, leading to a poor user experience." *Id.*

In sum, Patent Owner argues the combination would cause speed and reliability problems. PO Resp. 33–34. However, the claims do not require a level of system performance. Patent Owner does not argue explicitly that "a poor user experience" would preclude one of ordinary skill in the art from making the combination, only that the resulting cellular network would not have provided "reliable transport." *See id.* at 32.

In any case, Petitioner responds that Richardson expressly discloses using the VNC system with a cellular network and Arnold's bit rates are "very high." Pet. Reply 23 (citing Ex. 1006, 37; Ex. 1032, 155:17–156:16, 162:18–165:7). According to Petitioner, Patent Owner's argument that the bit rate for the device of Richardson and Arnold would be too low to reliably transport the VNC system is based on "what IV's expert arbitrarily believes Arnold should have disclosed," not the rate disclosed in the reference. *Id.* at 23–24. Arnold discloses a download data rate of 256 kilobits per second. Ex. 1013, 19. Included in his testimony about Arnold, Dr. Williams testified the disclosed data rate was "aspirational." Ex. 1032, 163:16–164:7. Petitioner cites to the preceding, among other parts of Dr. Williams deposition testimony, contending Dr. Williams' opinions are premised not on the actual bit rate or bit rate error rates disclosed in Arnold, but what IV's expert arbitrarily believes Arnold should have disclosed. Pet. Reply 23–24 (citing Ex. 1032, 162:18–165:7).

Richardson discloses the VNC system is usable on a mobile phone. Ex.

1006, 37. We find, based on this express disclosure in Richardson, one of ordinary skill in the art would have had a reasonable expectation that the VNC system could have been used with the cellular networks that existed at that time. Moreover, Arnold discloses exporting data from cellular networks to the Internet. Ex. 1013, 7:3–11, 8:7–17, 9:11–27, Fig. 1; Ex. 1001 ¶ 202), and we find persuasive Petitioner's argument that one of ordinary skill in the art would have sought to add Arnold's functionality to the system of Richardson in order to "expand the geographical reach of the VNC system." Pet. 33; Pet. Reply 23 (citing *KSR*, 550 U.S. at 416).

Thus, we are persuaded that Petitioner has shown by a preponderance of the evidence that claims 9, 19, and 21–23 would have been obvious over Richardson and Arnold.

3. Claim 24 as Obvious Over Richardson, Raman, and Arnold

Claim 24 depends from claim 11 and recites "displaying the user interface on the local network comprises the step of audioly presenting the user interface on a cellular device." Petitioner alleges Richardson and Arnold disclose that the VNC desktop of Richardson can be sent via the cellular network of Arnold, as was argued above in connection with claims 9 and 19. Pet. 37 (citing Ex. 1018, 66–68, 70; Ex. 1001 ¶¶ 208–217), 38 (claim chart).

Raman is argued to disclose an audio interface, which permits opening files by speaking the file name. *Id.* (citing Ex. 1018, 66–68, 70). Petitioner argues that one of ordinary skill in the art would have sought to combine the audio interface of Raman with the VNC system of Richardson and Arnold to allow visually impaired users to access the functionality of the system of Richardson and Arnold. *Id.*

Patent Owner does not separately argue claim 24 but does include it in its arguments made in connection with claims 9, 19, and 21–23. PO Resp. 32. As discussed above, those arguments were determined to be unpersuasive.

Upon review of Petitioner's arguments and supporting evidence, we are persuaded that Petitioner has shown by a preponderance of the evidence that claim 24 would have been obvious over Richardson, Arnold, and Raman.

4. Claims 4 and 14 as Obvious over Richardson and Pezzullo

Claims 4 and 14, depending respectively from claims 1 and 11, include the same limitation, namely that the "user specific resources and information comprise telephone numbers." Petitioner has provided evidence that the combination of Richardson and Pezzullo teaches the additional limitation of claims 4 and 14. Pet. 28–29 (citing Ex. 1011, 2:51–57, Fig. 2 (directory telephone numbers stored as lists in a central switch), 29 (claim chart)). For example, Petitioner contends "Pezzullo discloses an interactive telephone terminal with a GUI that allows a user to view and edit directory telephone numbers stored as a list in a central switch." *Id.* at 28. Petitioner further contends that one of ordinary skill in the art would have sought to add the functionality of Pezzullo to Richardson's system "to allow a user easy access to his or her commonly used telephone numbers." *Id.* at 28–29 (citing Ex. 1001 ¶¶ 158–159).

Patent Owner argues Pezzullo does not remedy the limitations Patent Owner contended were missing from claims 1 and 11. *See* PO Resp. 34. We determined Patent Owner's arguments relating to claims 1 and 11 were unpersuasive. Patent Owner does not separately argue claims 4 and 14.

Upon review of Petitioner's arguments and supporting evidence, we are persuaded that the combination of Richardson and Pezzullo discloses each limitation of claims 4 and 14 and that Petitioner provides a reasoned

explanation supported by factual underpinnings to support the proposed combination. Accordingly, we are persuaded that Petitioner has shown by a preponderance of the evidence that claims 4 and 14 would have been obvious over Richardson and Pezzullo.

5. Claims 10 and 20 as Obvious Over Richardson and Pocock

Claims 10 and 20 depend from claims 1 and 11, respectively. Both claims recite "retrieving the mobile interface from the network server comprises the step of retrieving the mobile interface via a television network." Petitioner argues the limitation is taught by the combination of Richardson and Pocock. Pet. 35–36 (including claim chart).

Petitioner cites to Richardson's teaching that a "television set" can be used as a display for viewing the user's desktop. Pet. 36 (citing Ex. 1006, 35 and 37). Pocock is cited by Petitioner for its disclosure of "retrieving still frame video images from a central location to users via a cable television network as part of an interactive television system for services such as home shopping, financial transactions, and education." *Id.* at 35 (citing Ex. 1014, 1:1–55). Petitioner argues "[o]ne having ordinary skill in the art would have sought to expand the reach and accessibility of the VNC system, and allowing a user to retrieve his or her desktop over a television network is a predictable and straightforward implementation to achieve that goal." *Id.* at 36 (citing Ex. 1001 ¶ 230). We are persuaded there is rational basis for the combination.

Patent Owner argues Pocock does not remedy the limitations Patent contends are missing from claims 1 and 11. *See* PO Resp. 34. We determined, however, that Patent Owner's arguments relating to claims 1 and 11 were unpersuasive. Patent Owner does not separately argue claims 10 and 20.

Petitioner has shown by a preponderance of the evidence that claims 10 and 20 would have been obvious over Richardson and Pocock.

6. Summary of Obviousness Grounds Based on Richardson

Based on this record, we determine that Petitioner has shown by a preponderance of the evidence that claims 4, 6, 9, 10, 14, 16, 19, and 20–24 would have been obvious over the various recited combinations involving Richardson.

D. Analysis of Anticipation Grounds Based on Murray

The Petition alleges claims 1, 2, 8, 11, 12, and 18 are anticipated under § 102 by Murray. Pet. 4, 38–43, 43–47 (claim chart). The ground is supported by the Lieberman Declaration. Ex. 1001 ¶¶ 231–274.

1. Murray

Murray discloses a method for maintaining user specific settings through the user's individual profile. Ex. 1008, 1. Murray discloses a system of Windows NT "'roaming' profiles that are stored on the server and loaded down to the PC each time the user logs in." *Id.* at 3. The roaming profiles are "the files and directories that define each user's registry, desktop, start menu, etc." *Id.* The user's desktop, as defined by the user's profile, "allow[s] users to use any desktop [computer] to access . . . the same files and working environment that they would have on their local workstation." *Id.* The user's files and working environment are user-specific because they are the same as they would have on their local desktop workstation. *Id.* The user's files and working environment are retrieved from the network server because they are available from any computer on the network. *Id.*

2. Independent Claims 1 and 11 as Anticipated by Murray

Patent Owner identifies two limitations from claims 1 and 11 and an additional limitation from claim 11 that Patent Owner argues are not disclosed

by Murray. PO Resp. 38. As to the remaining limitations of claims 1 and 11, we are persuaded that Petitioner has shown sufficiently that they are present in Murray. *See* Pet. 38–43, 43–47 (claim chart); Ex. 1001 ¶¶ 231–274. Our analysis of Patent Owner's arguments is addressed below.

a. "the mobile interface"

Claim 1 recites: "retrieving a *mobile interface* from the network server to the local device;" "displaying the *mobile interface* on the local device;" "the *mobile interface* including a plurality of pointers;" and "using the plurality of pointers displayed on the *mobile interface*." Emphases added. Claim 11 recites: "displaying the *mobile interface* on the local device;" "the *mobile interface* including a plurality of pointers;" "user profile and configuration data is used to update the data associated with the *mobile interface*;" and "using the plurality of pointers displayed on the *mobile interface*." Emphases added.

Petitioner alleges the user's desktop as defined by Murray's roaming profile is the claimed "mobile interface." Pet. 39–40 (citing Ex. 1008, 3; Ex. 1001 ¶¶ 236–237). Patent Owner argues Murray does not disclose the "mobile interface" limitation based on its proposed construction of "mobile interface," namely "dynamically access user-specific data on a network server and local device." PO Resp. 38–39. Even adopting Patent Owner's construction of "mobile interface," "Murray discloses synchronizing the user's desktop with the roaming profile upon login and log out (Ex. 1008, 3; Ex. 1001 ¶ 55), and that this synchronization allows the user to access local resources using the pointers on the user's desktop." Pet. Reply 9 (citing Ex. 1008 at 4–5; Ex. 1001 ¶ 54). However, we did not adopt Patent Owner's proposed construction of "mobile interface." Thus, whether or not Patent Owner's arguments are premised on Patent Owner's claim construction

proposal or not, they are not persuasive. *See* PO Resp. 39 (citing Ex. 2005 ¶ 96).

Regardless, Patent Owner quotes from the '002 patent that the "mobile interface agent" is accessible "using any computer from any geographical location so long as the computer can be connected to a network." PO Resp. 40 (quoting Ex. 1004, Abstract). Patent Owner points out that in the '002 patent "[t]he mobile interface runs 'as software on a computer or PDA device' (*id* at 6:2-3) on top of an operating system." *Id.* (citing Ex. 2005 ¶ 89). Patent Owner contrasts this with the configuration of Murray where the roaming profile, the alleged "mobile interface," is a component of Windows NT operating system and limited to Windows NT. *Id.* (citing Ex. 2005 ¶ 98).

This argument attempts improperly to read limitations from the Specification of the '002 patent into the claims. The claim language which recites "mobile interface" is reproduced above. Nowhere does the claim language recite a specific operating system nor where the "mobile interface" is located. Indeed, Patent Owner represented in district court that "[n]othing in the claims, however, requires that the term 'mobile interface' be used and installed on different types of devices." Pet. Reply 7 (citing Ex. 1034, 14–15). Dr. Williams reached the same conclusion in his deposition. *Id.* at 7–8 (citing Ex. 1032, 168:6–10, 169:5–21).

Patent Owner further argues that Murray's roaming profile, i.e., the "mobile interface," "is a local Windows NT operating system desktop interface, which is not 'mobile.'" PO Resp. 38. Our construction of "mobile interface" does not require literal mobility but rather "a user interface accessible on different computing devices." Petitioner has shown "Murray's mobile interface is the 'user's desktop, as defined by the roaming profile,' not the user's desktop as defined by local files." Pet. Reply 9 (citing Pet. 39–40,

43–44). The "mobile interface" of Murray is the roaming profile, not on the user's desktop. The roaming profile meets our claim construction. Accordingly, Patent Owner's argument is not persuasive.

Petitioner has shown sufficiently that Murray discloses a "mobile interface."

b. "retrieving a mobile interface from the network server to the local device"

Claim 1 recites, in pertinent part, "retrieving a mobile interface from the network server to the local device." Petitioner alleges the user's desktop as defined by Murray's roaming profile is the claimed "mobile interface." Pet. 39–40 (citing Ex. 1008, 3; Ex. 1001 ¶¶ 236–237). Petitioner argues that Murray discloses "retrieving a mobile interface from the network server to the local device" by "providing seamless access to the same files and working environment that users would have on their local workstation." *Id.*; *see* Ex. 1008, 2.

Patent Owner argues Petitioner's showing is insufficient because retrieving the roaming profile is not retrieving the "mobile interface" because Murray includes the user's desktop as part of the 'mobile interface." PO Resp. 41. Additionally, Patent Owner cites to Mr. Lieberman's deposition testimony that the roaming profile is "part of the user interface." *Id.* (citing Ex. 1026, 108). Patent Owner argues the claim language differentiates between "retrieving the mobile interface" from "retrieving user profile and configuration data." *Id.* (citing Ex. 1004, claim 1, 17:13–14, claim 11, 17:61–64). Patent Owner concludes that because Murray includes the user's desktop in the "mobile interface" it cannot be retrieved from the server to the local device as claims 1 and 11 require. *Id.* at 41–42.

We are not persuaded that Murray is as limited as Patent Owner's

argument requires. Murray discloses retrieval of the user's desktop, as defined by the roaming profile, from the server resulting in "seamless access to the same files and working environment that they [the user] would have on their local workstation." Ex. 1008, 3. Murray "allows users to roam between PCs on the network, while maintaining their personal preferences and customizations." Pet. 39 and 44 (citing Ex. 1008, 3; Ex. 1001, ¶¶ 236–237).

The user's files and working environment are retrieved from the network server because they are available from any computer on the network. As a result, Murray's disclosure of retrieval of the user's desktop, as defined by the roaming profile, falls within our construction of "mobile interface" as "a user interface accessible on different computing devices."

Petitioner has sufficiently shown that Murray discloses the "retrieving a mobile interface" limitation.

c. "retrieving user profile and configuration data from the network server to the local device, wherein the user profile and configuration data is used to update the data associated with the mobile interface"

Claim 11 recites, in pertinent part, "retrieving user profile and configuration data from the network server to the local device, wherein the user profile and configuration data is used to update the data associated with the mobile interface." Petitioner argues Murray's "roaming user profile (which includes the user profile and configuration data) is retrieved from the network server to the local device each time the user logs in." Pet. 41 (citing Ex. 1008, 3; Ex. 1001 ¶ 251). Petitioner cites to Murray's disclosure of "user profiles" which are "the files and directories that define each user's registry, desktop, start menu, etc." *Id.* (citing Ex. 1008, 3). Relying on the Lieberman Declaration, Petitioner contends "because these files and directories are the data that makes up the user profile, they are user profile data." *Id.* (citing Ex.

1001 ¶ 251). Petitioner argues the user profiles include configuration data, because Murray discloses storing "user specific configuration settings." *Id.* (citing Ex. 1008, 6).

Based on the prior disclosures of Murray and relying on the Lieberman Declaration for what would have been understood by a person of ordinary skill in the art, Petitioner alleges "Murray discloses retrieving user profile and configuration data (e.g., user specific configuration settings) from the network server to the local device, wherein the user profile and configuration data is used to update the data associated with the mobile interface (e.g., updates to the profile—the files and directories that define each user's desktop—are copied to the server)." Pet. 41 (citing Ex. 1001 ¶¶ 251–252).

Patent Owner argues the limitation in question requires that updating the mobile interface occurs with the *same data as the data retrieved*. PO Resp. 42 (emphasis added). Patent Owner contends the updating of the roaming profile of Murray uses *different data* than the user profile and configuration data. *Id.* at 43 (citing Ex. 2005 ¶ 105) (emphasis added). Patent Owner points out that Mr. Lieberman testified in his deposition that Windows NT, as disclosed in Murray, makes changes to the user profile as a result of user action at the computer being used. *Id.* at 44 (citing Ex. 1026, 114). Patent Owner concludes "'updates to the user profile and configuration data . . . copied to the server,' (Petition, p. 42), are not retrieved from the network server to the local device." *Id.* at 44.

Claim 11 does not preclude retrieved user profile and configuration data from being used as data to "update" the mobile interface data. *See* Pet. Reply 12. Petitioner argues that Murray discloses various ways the roaming profile is updated. Petitioner identifies several examples, including: (i) the retrieved user profile and configuration data; (ii) modifications to such data; (iii) the

local computer that transmits data onto the network; and (iv) the network that transports data from the local computer to the server. *Id.* at 12 (citing Pet. 41–42, Ex. 1008, 3–4). Each of the preceding examples "is 'used to update' the roaming profile data stored on the server." *Id*. (citing Pet. 41–42, 46-–47; Ex. 1008, 3–4). We agree with Petitioner that "[b]ut-for the user retrieving and using user profile data and user specific configuration settings of the roaming profile in Murray, there would be no 'update' of the roaming profile data stored on the server in Murray." *Id.* (citing Pet. 41–42; Ex. 1008, 3–4).

Petitioner has shown sufficiently that Murray discloses "retrieving user profile and configuration data from the network server to the local device, wherein the user profile and configuration data is used to update the data associated with the mobile interface."

3. Dependent Claims 2, 8, 12, and 18 as Anticipated by Murray

We have reviewed Petitioner's argument and evidence in connection with claims 2, 8, 12, and 18. Pet. 38–47 (including claim charts). Petitioner's patentability analysis of the claims is supported by the Lieberman Declaration. Ex. 1001 ¶¶ 254–274 (including claim charts). Patent Owner does not separately argue claims 2, 8, 12, and 18, relying on arguments related to claims 1 and 11 addressed above. *See* PO Resp. 38.

Petitioner has shown by a preponderance of the evidence that claims 2, 8, 12, and 18 are anticipated by Murray.

3. Summary of Anticipation Grounds Based on Murray

Petitioner has shown by a preponderance of the evidence that claims 1, 2, 8, 11, 12, and 18 are anticipated by Murray.

E. Analysis of Obviousness Grounds Based on Murray

Petitioner alleges claims 6, 7, 9, 16, 17, 19, and 21–24 are obvious over Murray and additional prior art references. Pet. 50–57, 59–60 (including

claim chart). The Petition is supported by the Lieberman Declaration. Ex. 1001 ¶¶ 275–287, 319–375.

1. Claims 6 and 16 as Obvious over Murray and Davis

Petitioner has provided evidence that the combination of Murray and Davis teaches the additional limitations of claims 6 and 16. Pet. 50–52 (including claim chart); Ex. 1001 ¶¶ 321–332. The rationale for combining the specific user licenses of Davis with the Windows NT desktop of Murray is the same as what we found persuasive in connection with Richardson. *See id.* at 51 (citing Ex. 1001 ¶¶ 331–332). Patent Owner does not separately argue claims 6 and 16, relying on arguments related to claims 1 and 11 addressed above. *See* PO Resp. 45.

Petitioner has shown by a preponderance of the evidence that claims 6 and 16 would have been obvious over Murray and Davis.

2. Claims 7 and 17 as Obvious over Murray

Petitioner has provided evidence and argument that Murray teaches the limitations of claims 7 and 17. Pet. 52–53 (including claim chart); Ex. 1001 ¶¶ 276–286. Claim 7 and 17 recite that the "mobile interface" (claim 7) and the "user profile and configuration data" (claim 17) are retrieved via the Internet.

Petitioner argues that a WAN[16] is a type of network and that additional networks known to the person of ordinary skill in the art, including the Internet, would further the purpose of the roaming profile system. *Id.* at 52 (citing Ex. 1008, 3; Ex. 1001 ¶¶ 286–287). Furthermore, Petitioner notes that Murray teaches "that these local devices contain 'Internet browser bookmark files.'" *Id.* (citing Ex. 1008, 6). Petitioner argues it would have been obvious

[16] Murray describes a "wide area network" at page 2 and WAN at page 4.

to expand the network of Murray to include other networks in view of Murray's use of a WAN. *See* Pet. 52 (citing Ex. 1008, 3; Ex. 1001 ¶¶ 286–287). The Lieberman Declaration is persuasive in noting that the purpose of the roaming profile of Murray is to "expand the number of devices and locations from which a user could retrieve and access his or her desktop." Ex. 1001 ¶ 286. Patent Owner does not separately argue claims 7 and 17, relying on arguments related to claims 1 and 11 addressed above. *See* PO Resp. 44.

Petitioner has shown by a preponderance of the evidence that claims 7 and 17 would have been obvious over Murray.

3. Claims 9, 19, and 21–23 as Obvious over Murray and Arnold

Petitioner has provided evidence and argument that the combination of Murray and Arnold teaches the limitations of claims 9, 19, and 21–23. Pet. 53–57 (including claim chart). Claims 9 recites "retrieving the mobile interface via a cellular network." Claim 19 is similar, substituting "user profile and configuration data" for "mobile interface."

As to claims 9 and 19, we are persuaded that the teachings of Murray and Arnold are sufficiently interrelated that a person of ordinary skill in the art would have reason "to combine the known elements in the fashion claimed by the patent at issue." *See KSR*, 550 U.S. at 418. Arnold discloses sending data from the Internet to a user via a cellular network. Ex. 1013, 1:4–8, 8:1–29, 10:27–30, Fig. 1. We are persuaded that the WAN network, i.e., the Internet, of Murray is sufficiently related to the cellular network of Arnold to form a rational basis for the combination. We agree with Petitioner's motivation to combine Murray and Arnold. Specifically, we agree with Petitioner's contention that one having ordinary skill in the art at the time of the alleged invention would have had a reason to combine Murray with the well-known

features of Arnold to expand the geographical reach of the Windows NT roaming profile system. *See* Pet. 55 (citing Ex. 1001 ¶¶ 364–365).

Claims 22 and 23 both depend from claim 21. Claim 21 recites "exporting user profile and configuration data from a first network to a second network." As discussed above in connection with Richardson and claim 11, the icons on a user's desktop are "pointers" that contain "pointer data," which the '002 patent describes as "user profile data." For reasons discussed above in connection with Richardson and Arnold with respect to claims 21 through 23, and specifically with respect to Murray and Arnold at pages 32 through 33 of the Petition, we are persuaded that it would have been obvious for one of ordinary skill in the art to combine Murray and Arnold to meet the limitation of claims 21 through 23. Patent Owner does not separately argue claims 9, 19, and 21–23, relying on arguments related to claims 1 and 11 addressed above. *See* PO Resp. 45.

Petitioner has shown by a preponderance of the evidence that claims 9, 19, and 21–23 would have been obvious over Murray and Arnold.

4. Claim 24 as Obvious over Murray, Raman, and Arnold

Petitioner has provided evidence and argument that Murray, Raman, and Arnold would have been combined by the person of ordinary skill to meet the limitations of claim 24. Pet. 59–60 (including claim chart). The arguments and evidence provided are all but identical to the arguments we found persuasive in connection with Richardson. *See* Pet. 37. Patent Owner does not separately argue claim 24, relying on arguments related to claims 1 and 11 addressed above. *See* PO Resp. 45.

Petitioner has shown by a preponderance of the evidence that claim 24 would have been obvious over Murray, Raman, and Arnold.

5. Summary of Obviousness Grounds Based on Murray

Petitioner has shown by a preponderance of the evidence that claims 6, 7, 9, 16–17, 19, and 21–24 would have been obvious over the various recited combinations involving Murray.

F. Patent Owner's Motion to Exclude

Patent Owner's Motion seeks to exclude Murray (Ex. 1008) on the grounds that it is not prior art and, as such, is irrelevant. Mot. 3–7. In addition, Patent Owner contends Murray and *Large Scale System Administration of Windows NT Workshop* ("proof of publication,"[17] Ex. 1009), which is submitted as the proof of publication of Murray, are inadmissible hearsay. *Id.* at 3, 7–8. The proof of publication is a promotional brochure, which, on its face, is published by USENIX "the UNIX and Advanced Computing Systems Association." Ex. 1009, 1. The proof of publication includes a Technical Program schedule showing a presentation on August 16, 1997, entitled "Effective Usage of Individual User NT Profiles with Software Distribution" with presenters "Mark Murray and Troy Roberts, Interprovincial Pipe Line, Inc." Ex. 1009, 5. The title is all but the same as the title of Murray and the presenters are the same as the authors of Murray. Ex. 1008, 2. Petitioner provided supplemental evidence in response to the objection, Exhibit 1022, IBM's Wayback Machine ("Wayback Machine evidence").[18]

[17] Petitioner offers Exhibit 1009 as proof of publication of Murray. *See* Pet. 3, n.8.

[18] Objections to evidence, and supplemental evidence in response to an objection, are "served" on the opposing party, not "filed," under 37 C.F.R. §§ 42.64(b) and 42.64(c). While the record is not clear that Exhibit 1022 was timely served, the Motion acknowledges that Patent Owner had been previously served a copy of Exhibit 1022. Mot. 5, n.1, 6. The objection was served May 11, 2015. Ex. 2009, Certification of Service. The date of the affidavit portion of Exhibit 1022, May 19, 2015 (Ex. 1022, 1), although not dispositive of a service date, is consistent with timely service, within ten days of the service of the objection. *See* 37 C.F.R. §§ 42.64(b)(2). A copy of

Exhibit 1022 includes the Affidavit of Christopher Butler ("Butler Affidavit"), and an attached Exhibit A including "USENIX Summaries for Large-Scale System Administration of Windows NT Workshop" ("Workshop Program," Ex. 1022, 3–39) and the "Technical Program Overview" ("agenda," Ex. 1022, 40–42),

Petitioner opposes the Motion asserting, *inter alia*, that Patent Owner failed to make a relevance objection to Murray with respect to claims upon which trial was instituted. Opp. 2–3 (citing Patent Owner's Objections to Petitioner's Evidence Pursuant to 37 C.F.R. § 42.64(b)(l), Ex. 2009, 4). Concerning the hearsay objection, Petitioner contends that Murray and the proof of publication are not offered for the truth of the matter asserted and are not hearsay. *Id.* at 7–8. Alternatively, Petitioner argues Exhibits 1008 and 1009 are admissible under the residual hearsay exception. *Id.* at 8–10 (citing FED. R. EVID. 807). Patent Owner's Reply to Opposition responds that it "timely objected to Murray on relevance grounds" and that Murray and the proof of publication are hearsay because they are offered to show the truth of the matter asserted, i.e., that the documents were publicly available before the critical date. PO Reply 1–3.

1. Relevance Objection

Patent Owner's objection asserted Murray was irrelevant "because cited portions are not relevant to any issues remaining in this proceeding E.g., Petition at pp. 47–50, Lieberman Decl. ¶¶ 288–320." Ex. 2009, 4. By referring to the Petition pages 47 through 50, Patent Owner's objection specifically refers to claims 3–5 and 13–15, claims upon which trial was not

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Exhibit 1022 was served with the Opposition. Opp., Certificate of Service. Inasmuch as Patent Owner does not object to its timeliness, we accept Exhibit 1022 as timely served supplemental evidence.

instituted. *See* Dec. Inst. 31–32, 35.

The relevance objection did not assert Murray was not prior art to any claims at issue in this trial and is irrelevant. We agree with Petitioner that the objection was not sufficiently particular to enable Petitioner to cure it with supplemental evidence. *See* Opp. 3. Thus, Patent Owner's objection stated in Exhibit 2009 is not the same objection as Patent Owner attempts to raise in its Motion to Exclude under 37 C.F.R. § 42.64(c).

Patent Owner's Motion to Exclude Murray based on its relevance as prior art is denied.

2. Hearsay Objection

Patent Owner alleges both Murray and its proof of publication are offered for the proof of the matter asserted, that Murray was publicly available prior to the critical date of the '002 patent. Mot. 7. Petitioner contends the date on the face of Exhibits 1008 and 1009 are not hearsay "because they are verbal acts, not assertions." Opp. 7–8.

In support of its position, Petitioner cites several district court decisions and a decision on *inter partes* review that dates on prior art "serve a non-hearsay purpose for which it can be admitted—namely to prove that the document was available publicly as of that date." Opp. 8 (citing *EMC Corp. v. PersonalWeb Techs., LLC*, case IPR2013-00082, slip op. at 61 (PTAB May 15, 2014) (Paper 83)). However, as Patent Owner notes, other panels have determined that dates on documents are hearsay. Mot. 7 (citing *Standard Innovation Corp. v. Lelo, Inc.*, IPR2014-00148, slip op. at 13-18) (PTAB Apr. 23, 2015) (Paper 42) (date on exhibit is inadmissible hearsay).

The Board has no precedential decision on the point and we are not bound by what other panels do on their particular facts. The Federal Rules of Evidence are applicable to an *inter partes* review such as the case at hand.

Petitioner argues Murray and the proof of publication are consistent with the Wayback Machine evidence. Opp. 9. The Wayback Machine evidence is an electronic document purporting to show when USENIX posted a publicly available summary of the Workshop Program and agenda on its website. *See id.* at 6. Although we are cognizant that electronic documents generally are not self-authenticating, it has been recognized that "[t]o authenticate printouts from a website, the party proffering the evidence must produce some statement or affidavit from someone with knowledge of the website . . . for example a web master or someone else with personal knowledge would be sufficient." *St. Luke's Cataract and Laser Inst. v. Sanderson*, 2006 WL 1320242, *2 (M.D. Fla. 2006) (quoting *In re Homestore.com, Inc. Sec. Litig.*, 347 F. Supp. 2d 769, 782 (C.D. Cal. 2004)) (internal quotation marks omitted); Ex. 2024; *see also Market-Alerts Pty. Ltd. v. Bloomberg Fin. L.P.*, 922 F. Supp. 2d 486, 493, n.12 (D. Del. 2013) (citing *Keystone Retaining Wall Sys., Inc. v. Basalite Concrete Prods., LLC*, 2011 WL 6436210, *9 n.9 (D. Minn. 2011)) (Documents generated by a website called the Wayback Machine have been accepted generally as evidence of prior art in the patent context.); *U.S. v. Bansal*, 663 F.3d 634, 667–68 (3d. Cir. 2011) (concluding that the screenshot images from the Internet Archive were authenticated sufficiently under Federal Rule of Evidence 901(b)(1) by a witness with personal knowledge of its contents, verifying that the screenshot the party seeks to admit are true and accurate copies of Internet Archive's records).

The Wayback Machine evidence includes the authentication required by Federal Rule of Evidence 901(b)(1). *See Bansal*, 663 F.3d at 667–68. Specifically, Exhibit 1022 includes the Butler Affidavit, the Office Manager

of the Internet Archive, which includes the Wayback Machine service. Ex. 1022, 1. Mr. Butler testifies that Exhibit A attached to his affidavit, the Workshop Program and agenda, each include a footer showing the date assigned by the Internet Archive. Ex. 1022 ¶ 5. Mr. Butler testifies the footer date may not be the same as the date the actual images were archived. *Id.* Mr. Butler further testifies that Exhibit A to his affidavit contains "true and accurate copies of printouts of the Internet Archives records of the HTML files for the URLs and dates specified in the footer of the printout." *Id.* at ¶ 6. Thus, the archive dates of the two attachments forming Exhibit A are January 28, 1998, and June 6, 1997, respectively. *See id.* at ¶ 5, Exhibit 1022, 4, 40 (footers). The actual date of the seminar in the proof of publication is August 14–17, 1997. Ex. 1009, 1. Given Mr. Butler's testimony that the dates of the Wayback Machine evidence may not be the same as the actual archive date (Ex. 1022 ¶ 5), we do not find the discrepancies in the dates troubling, particularly given all the consistencies between the exhibits.

As a preliminary matter, the Butler Affidavit consists of statements made by the Mr. Butler while testifying in this proceeding, "at the current trial," and are not "hearsay." *See* Fed. R. Evid. 801(c). Further, Exhibit 1022 has been authenticated sufficiently to warrant the admissibility of the Exhibit A attachments under Federal Rules of Evidence 901(b)(1), (b)(3), and (b)(4).

That Exhibit 1022 is not hearsay and authenticates Exhibit A's attachments does not necessarily overcome the hearsay objection to Murray and the proof of publication. Murray and the proof of publication are offered to show that as of their dates the exhibits were publicly available prior art. Absent some exception, they are hearsay. Contrary to Petitioner's assertion, they are not relevant for the fact that they are what they are but rather, for what they say.

Petitioner additionally asserts that if Murray and its proof of publication are hearsay, the residual exception of Federal Rule of Evidence 807 applies. Opp. 8. Petitioner contends Murray and its proof of publication are admissible because they "contain circumstantial guarantees of trustworthiness." *Id.* at 8–10 (citing Fed. R. Evid. 807(a)(1)).

Federal Rule of Evidence 807 provides a "residual exception" to the hearsay rule, which may apply even if no specific exception of Federal Rule of Evidence 803 applies. To fall under this exception, the statement must: 1) have equivalent circumstantial guarantees of trustworthiness; 2) be offered as evidence of a material fact; 3) be more probative on the point for which it is offered than any other evidence that the proponent can obtain through reasonable efforts; and 4) be in the interests of justice to admit. Fed. R. Evid. 807. The residual exception to the hearsay rule is to be reserved for "exceptional cases," and is not "a broad license on trial judges to admit hearsay statements that do not fall within one of the other exceptions." *Conoco Inc. v. Dep't of Energy*, 99 F.3d 387, 392 (Fed. Cir. 1996), as amended on reh'g in part (Jan. 2, 1997) (internal quotations omitted). Trial courts are accorded wide discretion in applying exception. *Doe v. United States*, 976 F.2d 1071, 1076–77 (7th Cir. 1992), *cert. denied* 510 U.S. 812 (1993); *United States v. North*, 910 F.2d 843, 909 (D.C. Cir. 1990) *cert. denied* 500 U.S. 941 (1991).

We are persuaded that Exhibits 1008, 1009, and 1022 are consistent as to the close proximity of the dates shown, corroborate each other, and are circumstantial evidence of trustworthiness. Exhibit 1022 establishes that attached Exhibit A's attachments, the Workshop Program (Ex. 1022, 1–39) and the agenda (Ex. 1022, 40–42), are true and correct copies of the Wayback Machine "files for the URLs and dates specified in the footer of the printout."

Ex. 1022 ¶ 6. The agenda shows that a presentation entitled "Effective Usage of individual User NT Profiles with Software Distribution" was given by Mark Murray and Troy Roberts of Interprovincial Pipe on Saturday, August 16. Ex. 1002, 41. The proof of publication shows a date of August 14–16, 1997 for the entire workshop and August 16, 1997, as the date of presentation by Mr. Murray and Mr. Roberts. The Workshop Program title and proof of publication are the same and have all but the same title as Murray.[19] The presenters of the Workshop Program and the authors of Murray are the same. This evidence is sufficient to show "circumstantial guarantees of trustworthiness."

The other elements of Federal Rule of Evidence 807(c) are met. The evidence is offered to show a material fact, i.e., the date of Murray to show it is prior art. There is no other evidence of record "more probative on the point for which it is offered." Petitioner represents that it made reasonable efforts to and no other evidence was available. Opp. 9 ("IV deprived IBM the opportunity to take any further reasonable efforts to prove Murray's (Ex. 1008) publication date because IV never properly objected to its status as prior art. *See* Ex. 2009 at 4."). Finally, we determine that admission of the evidence is in the interests of justice.

Petitioner's Exhibit 1022 also shows the Workshop Program and agenda, and thus Murray,[20] were publicly available. For example, "there were no fewer than 15 attendees present during Murray's (Ex. 1008)

[19] The word "Usage," rather than use, and the addition of the acronym NT in the Workshop Program and proof of publication titles are *di minimus* differences between their titles and the title of Murray. *See* Opp. 7.
[20] Murray states "The following paper was originally published in the Digest of the Large Scale System Administration of Windows NT Workshop Seattle, Washington, August 1997." Ex. 1008, 1.

presentation." Opp. 5 (citing Ex. 1022, 28–33). Inasmuch as we have found that Exhibit 1022 is admissible, its URL dates are evidence of publication on the Workshop Program's sponsor's (USENIX) website. *Id.* at 6.

We also note that Patent Owner's objection to both Exhibits 1008 and 1009 is a general objection to hearsay. The public accessibility of Murray is a substantive issue, not an evidentiary one, and is better suited for Patent Owner's Response than for a motion to exclude. The Response addresses Murray but fails to even mention public availability.

Under these circumstances, we admit Murray as prior art, as supported by the proof of publication (Exhibit 1009) and the Wayback Machine evidence (Exhibit 1022). We also determine that Petitioner has shown that Murray was publicly available.

Patent Owner's Motion to Exclude Murray based on a hearsay objection is denied.

ORDER

For the reasons given, it is

ORDERED that Petitioner has shown by a preponderance of the evidence that claims 1, 2, 4, 6–12, 14, and 16–24 of U.S. Patent No. 6,546,002 B1 are unpatentable;

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

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

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