

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS INC.,
Petitioner,

v.

ORTIZ & ASSOCIATES CONSULTING, LLC,
Patent Owner.

IPR2019-00743
Patent 8,971,914 B2

Before STACEY G. WHITE, MONICA S. ULLAGADDI, and
IFTIKHAR AHMED, *Administrative Patent Judges*.

AHMED, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed herein, we determine that Unified Patents Inc.¹ (“Petitioner”) has shown, by a preponderance of the evidence, that claims 1–6, 8, 9, 16, and 18 (“the challenged claims”) of U.S. Patent No. 8,971,914 B2 (Ex. 1001, “the ’914 patent”) are unpatentable.

A. Procedural History

Petitioner filed a Petition for *inter partes* review of claims 1–6, 8, 9, 16, and 18 of the ’914 patent. Paper 1 (“Pet.”). Petitioner submitted a declaration from Dr. Henry H. Houh (Ex. 1008) to support its positions. Ortiz & Associates Consulting, LLC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). Pursuant to 35 U.S.C. § 314(a), on August 29, 2019, *inter partes* review was instituted on the following grounds:

¹ Petitioner has informed the Board that Unified Patents Inc. has changed its name to Unified Patents, LLC. Paper 22, 1.

Claims Challenged	35 U.S.C. § ²	Reference(s)/Basis
1–4, 8, 9, 16, 18	103(a)	Eldridge ³ , Thomason ⁴
5, 6	103(a)	Eldridge, Thomason, Kim ⁵

See Paper 7 (“Inst. Dec.”).

Subsequent to institution, Patent Owner filed a Response (Paper 18, “PO Resp.”) and Petitioner filed a Reply (Paper 28, “Pet. Reply”) to the Patent Owner Response. An oral hearing was held on May 28, 2020. A transcript of the hearing is included in the record. Paper 35 (“Tr.”).

B. Related Proceedings

The parties identify *Ortiz & Assocs. Consulting, LLC v. Google LLC*, Case No. 2-13-cv-11512 (N.D. Ill.); *Ortiz & Assocs. Consulting, LLC v. Roku, Inc.*, Case No. 1-18-cv-01265 (D. Del.); and *Google LLC v. Ortiz & Assocs. Consulting, LLC*, Case No. 5-18-cv-05983 (N.D. Cal.) as related matters. Pet. 1–2; Paper 5, 2. Petitioner further identifies *Ortiz & Assocs. Consulting, LLC v. HP Inc.*, Case No. 3-18-cv-4032 (N.D. Cal.) and *Ortiz & Assocs. Consulting, LLC v. HP Inc.*, Case No. 1-18-cv-00837 (N.D. Ill.) as matters where “additional patents related to the ’914 Patent have been involved.” Pet. 2.

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. Because the application from which the ’914 patent issued was filed before that date, the pre-AIA version of § 103 applies.

³ U.S. Patent No. 6,430,601 B1, issued Aug. 6, 2002. Ex. 1005.

⁴ U.S. Patent No. 6,317,039 B1, issued Nov. 13, 2001. Ex. 1006.

⁵ U.S. Patent No. 6,681,120 B1, issued Jan. 20, 2004. Ex. 1007.

C. The '914 Patent

The '914 patent, titled “Systems, Methods and Apparatuses for Providing Video Data to Data Rendering Devices for Display on Multimedia Video Devices at the Request of Wireless Hand Held Devices,” was filed on September 29, 2009,⁶ and issued March 3, 2015. Ex. 1001, codes (22), (45), (54).

Figure 1 of the '914 patent is reproduced below.

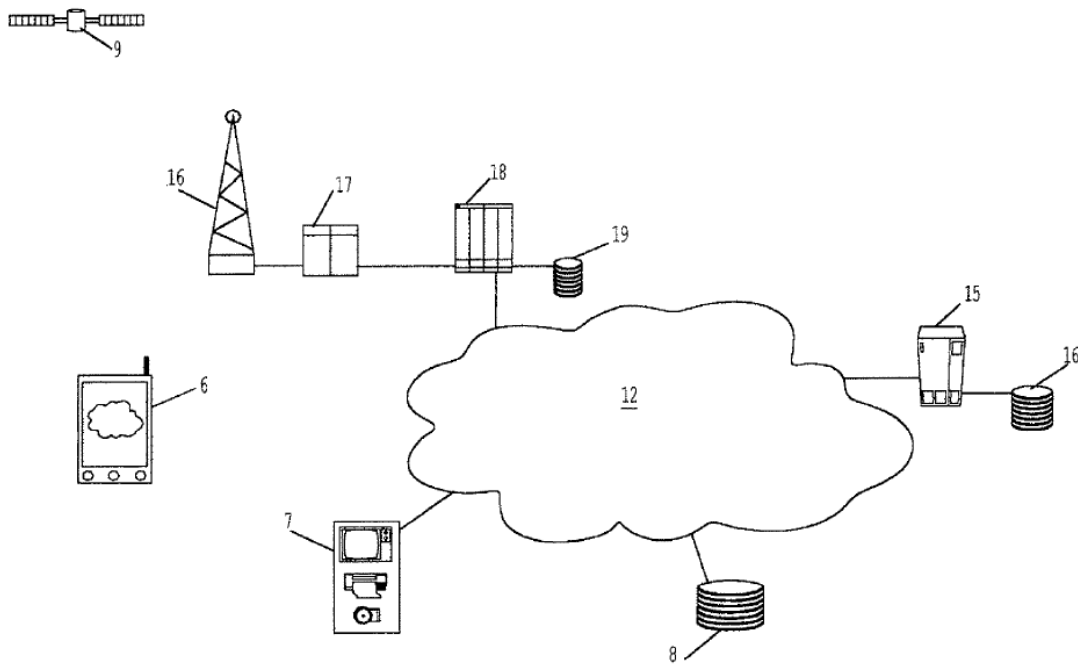


FIG. 1

Figure 1, above, illustrates wireless devices (“WD”) 6 connected to data rendering devices (“DRD”) 7 via wireless network hardware (e.g., cellular antennas) 16 and other networks 12. *Id.* at 6:56–63, 7:7–9. Network servers

⁶ The '914 patent claims priority to application No. 09/887,492, filed on June 22, 2001, which claims priority to provisional application No. 60/214,339, filed on June 27, 2000. Ex. 1001, codes (60), (63).

15, Home Location Registers (“HLR”) 16,⁷ and Visiting Location Registers (“VLR”) 19 manage and store subscriber information for wireless device users. *Id.* at 6:66–7:4. Multimedia database resources 8 are accessible by the wireless device users over networks 12. *Id.* at 7:18–20.

As described in the Background section of the ’914 patent, network interconnection and interoperability, at the time of the invention, were becoming “robust and standardized methodologies in the communications industry.” *Id.* at 2:15–19. “The trend for the wireless industry [was] towards an all-IP platform, which unites different standards for wireless services worldwide, and introduces an open, Internet-based platform for integrated data, voice and video services over cellular networks.” *Id.* at 2:40–44. Handheld wireless device users had access to a growing number of services, applications, and multimedia via numerous data networks (wired and wireless), but generally were restricted by limited graphical user interface functionality as well as “unavailable or inconveniently located rendering (e.g., printing/display/retrieval) resources to utilize data retrieved through networks.” *Id.* at 4:13–25. The ’914 patent therefore seeks to provide methods for data brokering between wireless devices, such as smart phones, and data rendering multimedia devices, such as televisions, video monitors, and projectors, such that those multimedia devices can be used for displaying video data “at the request and/or under the direction of wireless devices.” *Id.* at 4:38–44.

⁷ We note that Figure 1 specifies two distinct elements with the reference number 16, the cellular antenna and the HLR. Although the specification also refers to the HLR by reference number 13, that number is not shown in Figure 1.

In the embodiment depicted in Figure 1 of the '914 patent, data brokering occurs between wireless devices 6 and DRDs 7 via local wireless communications, including infrared ("IR") or radio frequency ("RF") technology, as well as supporting networks 12. In other words, data brokering can be accomplished either *directly* between wireless devices and DRDs or can be negotiated with and provided through the network using available networking protocols. *Id.* at 7:23–27. A DRD may have a wired or wireless connection to the network, and may include an authorization module that is responsible for approving any rendering request received from a wireless device. *Id.* at 7:33–37, 7:41–45. DRDs are locatable by the wireless devices because information related to a DRD's physical location and rendering capabilities is registered with and managed by network elements such as the HLRs, VLRs, and network servers. *Id.* at 6:63–7:1, 8:10–14. When a wireless device user is in need of a DRD, a network server is able to identify multiple DRDs for selection by the wireless device user. *Id.* at 8:25–27; 11:49–51. Some examples of DRDs that also can include brokering and location functionality are Internet Kiosks, printers, photocopiers, fax machines, ATMs, video monitors, projectors used in conference rooms, and other multimedia-enabled networked devices. *Id.* at 8:27–33.

D. Illustrative Claim

Of the challenged claims, claims 1, 9, and 16 are independent. Claims 2–6 and 8 depend from claim 1, and claim 18 depends from claim 16. Claim 1 of the '914 patent is reproduced below, and is illustrative of the challenged claims.

1. A method of brokering video data between handheld wireless devices and video-enabled data rendering devices, comprising:

selecting video data from a handheld wireless device (WD) for rendering by a video-enabled data rendering device (DRD);

requesting assistance from a wireless data communications network supporting wireless communications of said WD to locate the video-enabled DRD for display of said video data;

selecting at least one video-enabled DRD identified by said wireless data communications network for rendering of said video data from at least one of said WD or a remote server associated with said WD; and

providing said video data to said video-enabled DRD, after an authorization code provided by said WD is verified by said DRD, from at least one of: said WD via RF or IR transmission and said remote server via a data network supporting communication with said video-enabled DRD.

Ex. 1001, 12:54–13:6.

II. ANALYSIS

A. Principles of Law

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). That burden of persuasion never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics*,

Inc., 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

As set forth in 35 U.S.C. § 103(a),

[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness.⁸

Graham v. John Deere Co., 383 U.S. 1, 17–18 (1966). An obviousness analysis “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”

KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007); *accord In re Translogic Tech., Inc.*, 504 F.3d 1249, 1259 (Fed. Cir. 2007). Petitioner, however, cannot satisfy its burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016). Instead, Petitioner must articulate a reason why a person of ordinary skill in the art would have combined or modified the prior art references. *In re NuVasive*, 842 F.3d 1376, 1382 (Fed. 2016).

⁸ The parties have not asserted or otherwise directed our attention to any objective evidence of non-obviousness in the record.

To prevail in its challenges to Patent Owner's claims, Petitioner must demonstrate by a preponderance of the evidence⁹ that the claims are unpatentable. 35 U.S.C. § 316(e) (2012); 37 C.F.R. § 42.1(d) (2018).

B. Level of Ordinary Skill in the Art

We review the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art at the time of the invention. *Graham*, 383 U.S. at 17. Petitioner contends that a person of ordinary skill in the art “would have had at least a bachelor’s degree in Electrical Engineering, Computer Engineering, or Computer Science, or equivalent training, as well as at least one to two years of technical experience in the field of computer networking.” Pet. 9 (citing Ex. 1008 ¶¶ 31, 32). Patent Owner has not disputed that contention. *See generally* PO Resp. (not addressing the level of ordinary skill in the art). We adopt Petitioner’s proposed description of the person of ordinary skill in the art, while maintaining our prior determination (Inst. Dec. 9) that the prior art of record and the problems identified in the specification reflect the level of skill in the art at the time of the claimed invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. Claim Construction

We apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), following the standard articulated in

⁹ The burden of showing something by a preponderance of the evidence requires the trier of fact to believe that the existence of a fact is more probable than its nonexistence before the trier of fact may find in favor of the party who carries the burden. *Concrete Pipe & Prods. of Cal., Inc. v. Constr. Laborers Pension Tr. for S. Cal.*, 508 U.S. 602, 622 (1993).

Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340, 51,340, 51,358 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018) (now codified at 37 C.F.R. § 42.100(b) (2019)). In applying that standard, we generally give claim terms their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art, at the time of the invention and in the context of the entire patent disclosure. *Phillips*, 415 F.3d at 1312–13.

Petitioner proposes a construction for “brokering video data,” recited in the preamble of challenged claims 1–6, 8, 16, and 18. Pet. 10–11. Patent Owner does not propose construction for any claim term. *See generally* PO Resp. Patent Owner’s arguments on the alleged distinctions between the claims and prior art, however, require us to construe the terms “wireless data communications network” and “wireless network.”¹⁰

1. “wireless data communications network”/“wireless network”

In the Decision on Institution, we provided a single preliminary construction of “wireless data communications network” recited in claim 1 and “wireless network” recited in claims 9, 16, and 18. Inst. Dec. 11–14. In particular, we agreed with the construction proposed by Petitioner’s expert,

¹⁰ Independent claim 1 recites the term “wireless data communications network,” and independent claims 9 and 16, as well as dependent claim 18, recite “wireless network.” For example, claim 1 recites “requesting assistance from a wireless data communications network supporting wireless communications of said WD to locate the video-enabled DRD for display of said video data.” Ex. 1001, 12:60–63. The parties do not differentiate between the two terms (*see, e.g.*, Tr. 15:23–16:2), and we construe the two terms identically.

Dr. Houh, in his declaration, and construed both terms to mean a “data communications network that *includes* communications that take place without the use of interconnecting wires o[r]¹¹ cables, such as by radio, microwave, or infrared.” *Id.* at 12–14 (citing Ex. 1008 ¶ 80).

In its Patent Owner Response, Patent Owner alleges error in our preliminary construction. *See* PO Resp. 10–15. Patent Owner argues that the terms “should be given their ordinary meaning as written in the claims and specification of the ‘914 patent.” *Id.* at 15. According to Patent Owner, a “‘wireless network’ connects computers and devices *without* wires.” *Id.* (emphasis added). Patent Owner argues that because our preliminary construction “allows *some* network devices to be networked by a wired connection,” *any* network that includes a wireless communication meets the claim terms, and that the “construction makes every ‘data network’ that provisions the video data to the DRD a ‘wireless network.’” *Id.* at 10–11 (citing Ex. 1001, 7:45–48).

Patent Owner further asserts that the challenged claims distinguish between the narrower “wireless network” term and the broader “data network” term, where a data network allows “for the provision of the video data to the DRD over *either* wireless or wired networks, as contemplated in the specification.” *Id.* at 12. According to Patent Owner, our preliminary construction “renders this distinction meaningless, as each independent claim includes wireless communications of the WD that would transform every network into a “wireless network.”” *Id.* (citing *SIPCO, LLC v. Emerson Elec. Co.*, 939 F.3d 1301, 1308 (Fed. Cir. 2019); *In re Power*

¹¹ We correct a typographical error in Dr. Houh’s proposed construction.

Integrations, Inc., 884 F.3d 1370, 1376 (Fed. Cir. 2018); *Merck & Co., Inc. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005)).

Petitioner responds that our preliminary construction is correct and the construction of “wireless network” must necessarily allow some network devices to be networked by a wired connection. Pet. Reply 1, 2. Petitioner argues that the “specification, including Figure 1, details wireless networks with wire-based connections for most network devices.” *Id.* at 3.

Petitioner provides an annotated version of Figure 1 from the '914 patent (*id.* at 4), reproduced below.

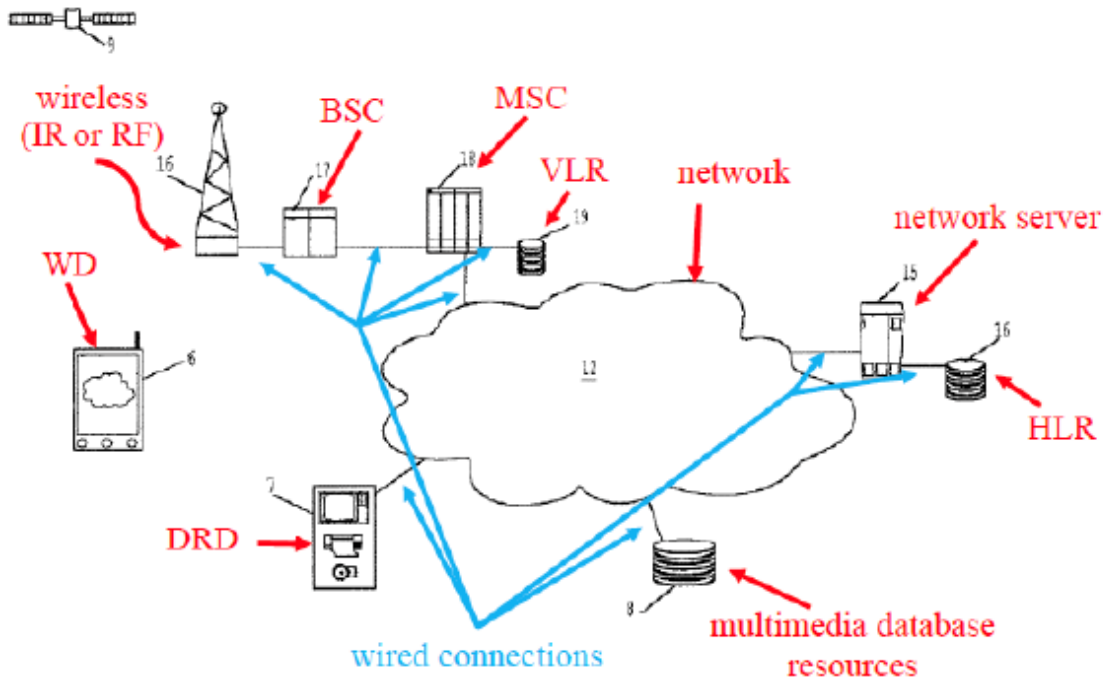


FIG. 1

Figure 1, above, includes Petitioner’s annotations showing the various elements of the network that Petitioner contends are connected to network 12 via wired connections, e.g., those between the BSC 17, MSC 18, VLR 19, network server 15, and HLR 16. *Id.* at 3. With reference to Figure 1, Petitioner argues that “the wireless device (WD) is connected to

these other devices via a wireless connection through cellular antenna 16.”

Id. Petitioner, therefore, contends that neither the specification nor the claim language precludes the claimed “wireless network” from including wired connections. *Id.* at 3–4.

Petitioner agrees with Patent Owner that there is a distinction between the narrower “wireless network” term and the broader “data network” term, but asserts that that distinction merely requires that “data network” allow for networks that are made *entirely* of wired connections, whereas “wireless networks” must include wireless connections. *Id.* at 4–5. Thus, Petitioner contends, the preliminary construction does not render the distinction between a “wireless network” and a “data network” meaningless. *Id.* at 5.

We agree with Petitioner, and for the reasons below, we maintain our preliminary construction in this Decision. As Petitioner points out, the specification discloses wire-based devices, such as servers connected to a network by wire, as being part of the claimed “wireless network.” As discussed *infra*, we are persuaded that an ordinarily skilled artisan would have understood those devices to be *wire-based* because of how they are depicted in Figure 1 as contrasted with how “wireless” devices/links are depicted in that figure, and because of their description in the specification. For example, the specification explains that “[i]ntelligent *wireless networks* generally include the use of mobile switching centers (MSCs) having access to network servers and databases such as Home Location Registers (HLRs) and Visiting Location Registers (VLRs), for providing applications and data to networks, service providers and service subscribers (wireless device users).” Ex. 1001, 2:48–54 (emphasis added). An HLR, for instance, “is a database that contains semi-permanent mobile subscriber (wireless device

user) information for wireless carriers' entire subscriber base.” *Id.* at 2:58–60. “Information related to WDs 6, DRDs 7 and/or WD users (e.g., subscriber identification, location, accounting, profiles) can be managed by a combination of network servers 15, Home Location Registers (HLRs) 16 and Visiting Location Registers 19.” *Id.* at 6:63–7:1. Those network resources and servers therefore support wireless communications of the WD and *assist in locating and identifying DRDs* to wireless device users. The parties do not dispute that those elements are part of the claimed “wireless network.” *See* Tr. 12:9–13:4, 52:17–24 (referring to elements of Ex. 1001, Fig. 1); PO Resp. 14–15 (“These are examples of the hardware that could make up the wireless network.”).

Patent Owner, however, argues that those components are connected wirelessly and that “the ’914 patent nowhere teaches that *Figure 1 includes wire-based connections*.” PO Resp. 14–15 (emphasis added), 13 (“Figure 1 of the ’914 patent shows no wire-based network to which a wireless device is bridged.”). Figure 1, however, depicts network servers 15, HLR 16, VLR 19, and antenna 16 *connected by a line* to network 12 while wireless device 6 is depicted with *no lines* connecting it to network 12. Ex. 1001, Fig. 1. Patent Owner’s argument also is refuted by the specification’s unambiguous description of the network. The specification discloses that the equipment shown in Figure 1 (as connected by a line to network 12) may be connected via conventional *wire-based* networks such as “the public service telephone network (PSTN), digital subscriber line (DSL), Integrated Services for Digital Networks (ISDN) and/or Local Area Network (LAN).” *Id.* at 7:51–56. An ordinarily skilled artisan would interpret the use of such

networks to necessarily mean that network 12 cannot be connected *entirely* wirelessly.¹²

Next, Patent Owner argues that even if the specification supports including *wire-based* connections in the disclosed *wireless* network, the claim term “should be given their ordinary meaning as written in the claims and specification of the ’914 patent.” PO Resp. 15; *see also* Tr. 42:9–13. At the hearing, Patent Owner argued that the only construction that is required for a “wireless network” is that it be the network that supports wireless communications of the WD and that it be the network in which the claimed method is practiced. *See* Tr. 38:11–16, 39:25–40:8. Patent Owner’s proposal, however, merely reiterates the claim language and fails to resolve the dispute between the parties on the meaning of the claims sufficient to address whether the prior art teaches the claimed “wireless network.”

We also are unpersuaded by Patent Owner’s argument that our construction renders the distinction between the terms “wireless network” and “data network” meaningless. PO Resp. 11, 12. The term “data network” in the claims refers broadly to networks in general, regardless of the type of interconnections between the elements of the network. *See, e.g.*, Ex. 1001, 4:15–16 (referring to “data networks” as “wired and wireless”), 2:4–7 (“data networks” include wireless networks), 7:41–44 (the DRD connects to data networks “with wired and/or wireless communications”),

¹² At the hearing, Patent Owner’s counsel, although continuing to assert that the connections in Figure 1 do not depict wired connections, acknowledged that “as a matter of practice in how figures are drawn and especially this one because [it is a] cloud-based connection,” the line could represent a wire-based connection and “[m]aybe it is just there are some wire-based connections.” Tr. 41:21–42:8.

Fig. 2. Therefore, our construction does not render the distinction between the claim terms “wireless network” and “data network” meaningless, and the authority cited by Patent Owner on that point is inapposite.¹³ When read in context of the claim language and the specification of the ’914 patent, it is clear that a “wireless network” is a network that connects the wireless device, while a “data network” is one that connects the data rendering device or video monitor.¹⁴ *See* Ex. 1001, 7:41–44.

Accordingly, for purposes of this Final Written Decision, we maintain our prior construction of both terms “wireless data communications network” and “wireless network” as a “data communications network that *includes* communications that take place without the use of interconnecting wires or cables, such as by radio, microwave, or infrared.” *Cf. AC Techs. S.A. v. Amazon.com, Inc.*, 912 F.3d 1358, 1367 (Fed. Cir. 2019) (rejecting an argument that the claim term “connected over a wireless network” requires a direct wireless connection).

2. Remaining Claim Terms

Petitioner proposes that we construe “brokering video data” to at least include “the negotiation, management, coordination and/or facilitation of

¹³ For example, in *SIPCO*, the Federal Circuit reversed the Board’s construction of “low-power transceiver” because the specification “repeatedly tie[d] the low-power transmitter to having a limited transmission range.” 939 F.3d at 1308-09. In contrast, nothing in the ’914 patent specification compels us to narrowly construe wireless network to exclude all wire-based connections.

¹⁴ Moreover, the claim language makes clear that the WD is “wireless” and connects to the network wirelessly. Patent Owner also does not dispute that the prior art teaches wireless devices connected wirelessly to a network. We therefore do not find it necessary to include additional detail regarding the WD’s connection to the wireless network in our construction.

video data movement and use between and throughout devices and at least one network.” Pet. 11 (citing Ex. 1008 ¶¶ 51–55). Our analysis below does not depend on a particular interpretation for “brokering video data,” and we determine that it is not necessary to explicitly construe any other term or phrase. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’”)).

D. The Asserted Prior Art

1. Eldridge (Ex. 1005)

Eldridge is a U.S. patent titled “Mobile Document Paging Service.” Ex. 1005, code (54). Eldridge relates to a method and system “for transmitting document references or tokens to users of integrated wireless and wire-based communication services,” including users of “[m]obile computing devices [that] are coupled to the wire-based network through either IR (infrared) or RF (radio) transceiver gateways.” *Id.* at code (57). A token may identify a changed document on a repository of shared documents, and when received by a user of a mobile computing device, “the document referenced by the document token [can be] readily printed, displayed, or forwarded using available document services.” *Id.*

Figure 1 of Eldridge is reproduced below.

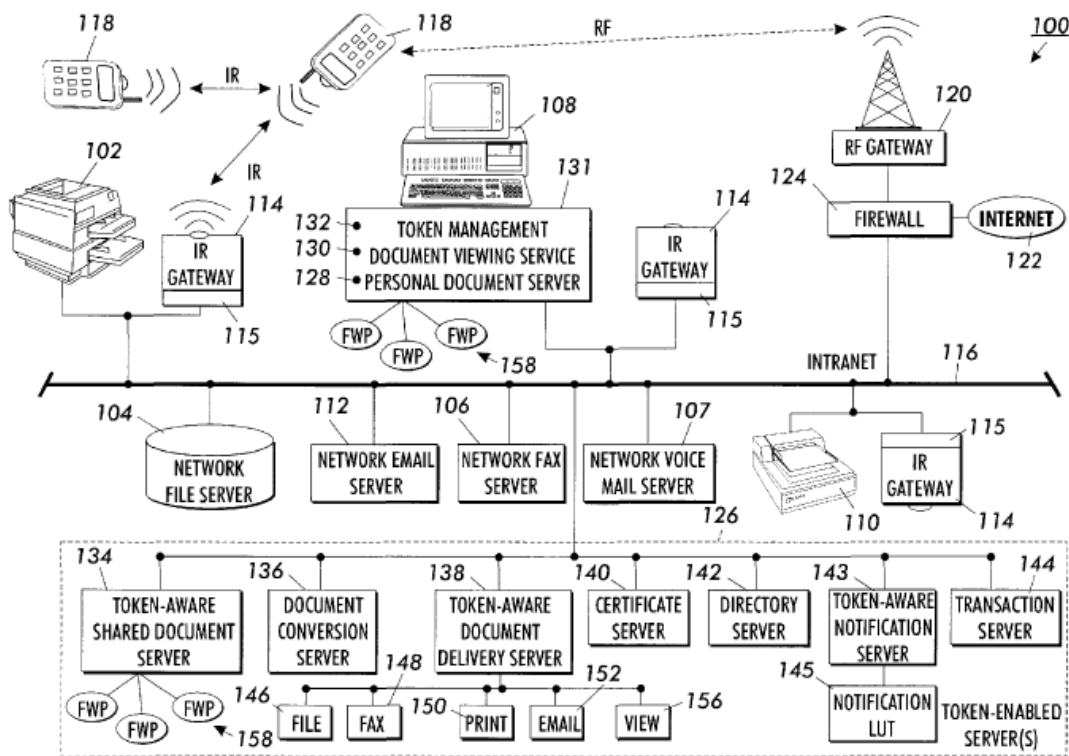


FIG. 1

Figure 1, above, shows “mobile computing devices 118 are bridged to the wire-based networks 116 and 122 through either IR gateways 114 or RF gateway 120.” *Id.* at 3:39–41. The token-enabled servers 126, along with other network elements, “operate together in the distributed operating environment to provide users of the mobile computing device 118 with streamlined access to document services available on wire-based networks 116 and 122.” *Id.* at 3:51–59. Users on mobile computing devices are able to browse through directories of document tokens representing the user’s documents stored on the network and “apply document services available on networks 116 or 122 to selected document tokens.” *Id.* at 3:59–65.

Figure 7 of Eldridge is reproduced below.

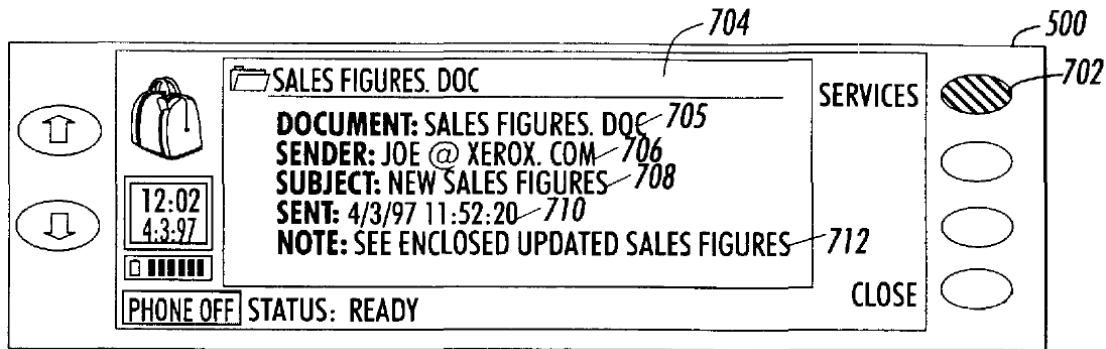


Figure 7, above, shows the user interface presented to the user of a mobile computing device when a document token message 601 (shown in Figure 6, not reproduced here) is opened. *Id.* at 10:9–15. The opened message includes a document token name 705, among other attributes. *Id.* at 10:13–19. Services button 702 allows the user to request a listing of services available to the user. *Id.* at 10:19–27. Referring to Figure 1 above, transaction server 144 manages requests received from the mobile computing devices for various document services available on the network. *Id.* at 4:27–43. In addition, transaction server 144 fulfills those requests, working in coordination with directory server 142, which maintains a database of token-enabled devices (e.g., printer 102 and scanner 110), and document delivery server 138, which retrieves requested documents from document servers 134 and 128. *Id.* For example, if a mobile computing device user wishes to print a document (e.g., Figure 7), the transaction server provides the user with a list of available print services. *Id.* at 10:19–43.

Figure 8 of Eldridge is reproduced below.

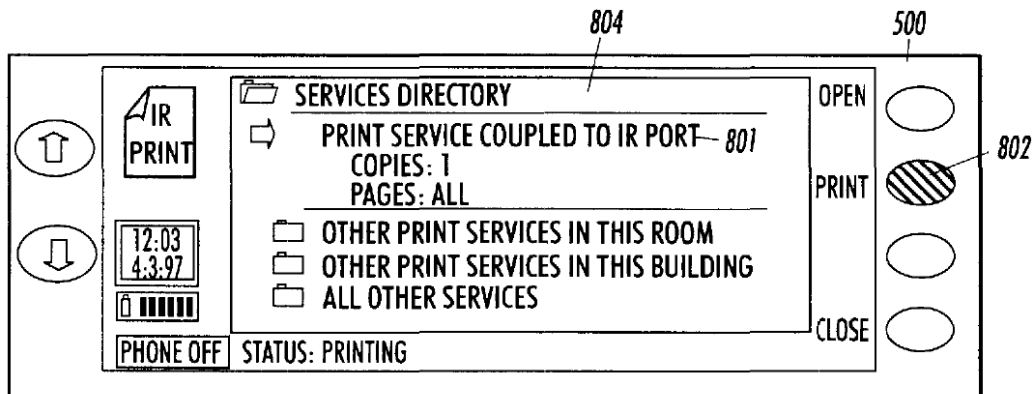


Figure 8, above, shows the user interface presented to the user when services button 702 is pressed. *Id.* at 10:54–56. The user interface lists available print services, including the user’s selection of print service 801 to print the selected document. *Id.* at 10:56–59. Once the user decides to print the document, the request is transmitted through the IR network or RF gateway to the transaction server. *Id.* at 11:3–7. The transaction server transmits the request to a token-aware document delivery server, which requests a document server to fetch the document. *Id.* at 11:7–14. The document server authenticates the document token by acquiring the public key of the original user issuing the document token. *Id.* at 11:20–24. If the authentication is successful, the document then is fetched from the document server by the document delivery server, formatted for printing, and sent to the specified printer for printing. *Id.* at 11:32–46.

2. Thomason (Ex. 1006)

Thomason is a U.S. patent titled “Wireless Video Audio Data Remote System,” and relates to a method and system for remote assistance of a technician at a remote location, by an advisor at a central location who is able to view the remote location through wirelessly networked apparatus.

Ex. 1006, codes (54), (57). That allows an advisor to assist a technician in the field, as required, without physically being at the job site. *Id.* at 1:41–45, 3:33–38.

Figure 3 of Thomason is reproduced below.

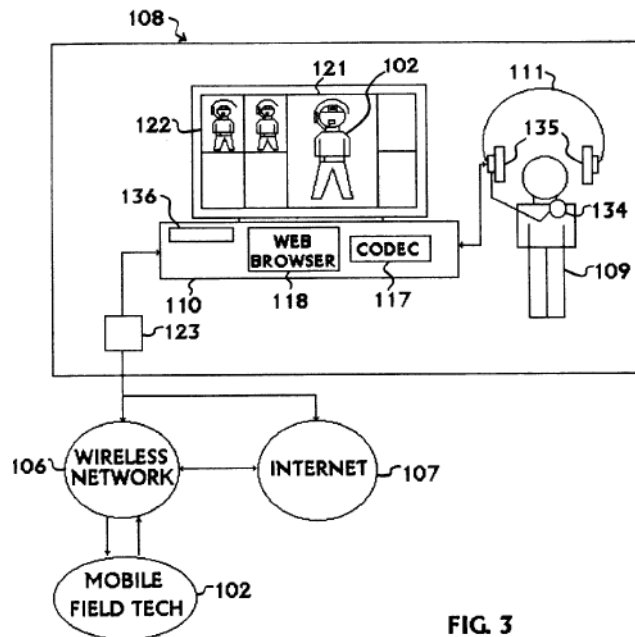


Figure 3, above, shows local master technician 109 communicating with mobile field technician 102 via an audio-visual connection, whereby master technician 109 is able to view the visuals from the field technician's camera 105 on the video monitor of local processor 110 and provide directions for repair to the field technician. *Id.* at 5:49–57. As described in Thomason, local station 108 is coupled wirelessly to mobile field technician 102 via wireless network 106 and/or Internet 107. *Id.* at 5:45–48.

3. Kim (Ex. 1007)

Kim is a U.S. patent titled “Mobile Entertainment and Communication Device,” and relates to a cellular telephone capable of wireless communication with the internet (e.g., Samsung 3500) that includes a camera and microphone for recording video, and a memory card for

storing the recorded video data, which also can be transmitted wirelessly.

Ex. 1007, codes (54), (57), 2:3–9.

Figure 5 of Kim is reproduced below.

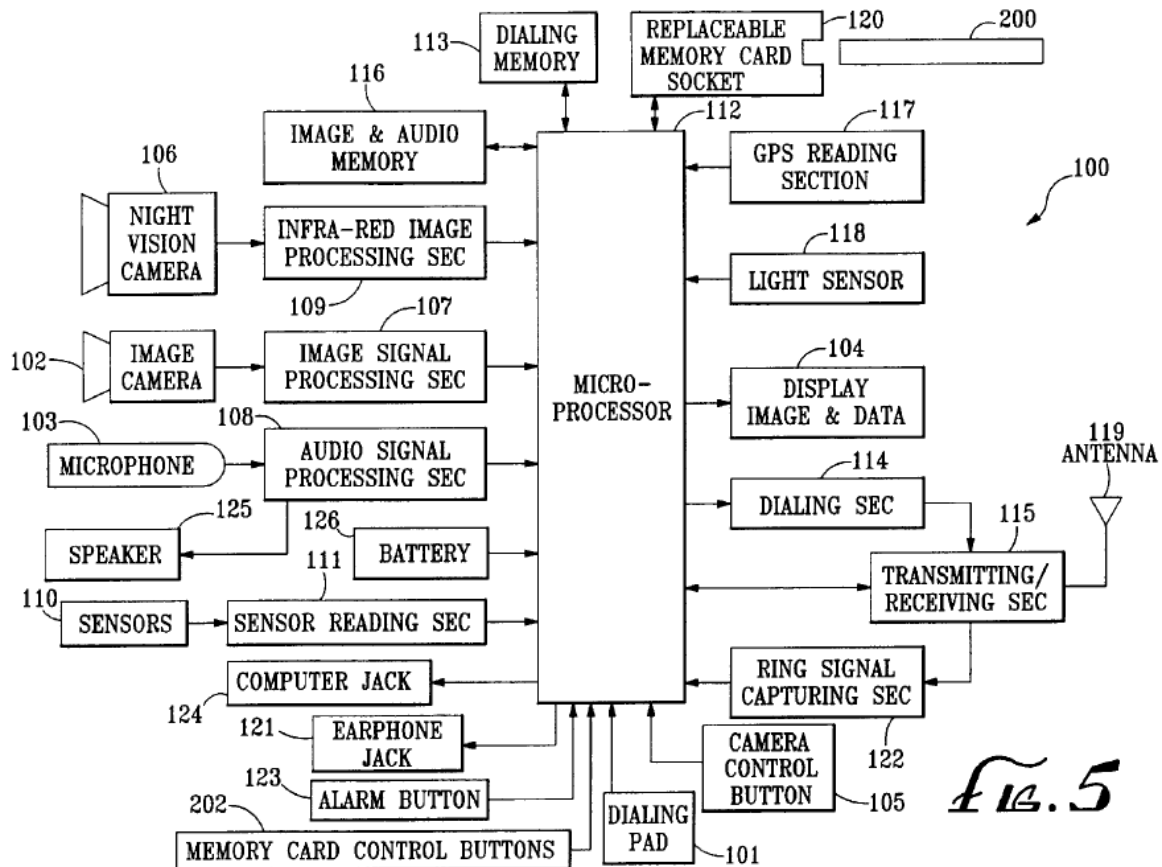


Figure 5, above, shows components of a cellular phone, including video camera 102, which is connected through image signal processing section 107 to microprocessor 112, whereby captured images may be displayed on panel 104, recorded to memory 116, “or transmitted by the cellphone to a remote telephone which may be located at a police station, security office, one’s own personal computer or the like.” *Id.* at 4:3–10.

E. Asserted Obviousness of Claims 1–4, 8, 9, 16, and 18 in view of Eldridge and Thomason

Petitioner asserts that claims 1–4, 8, 9, 16, and 18 are unpatentable under 35 U.S.C. § 103 as obvious in view of Eldridge and Thomason. Pet. 11–80. To support its contentions, Petitioner provides, among other things, explanations as to how the prior art teaches each claim limitation. *Id.* Petitioner also relies upon Dr. Houh’s testimony (Ex. 1008) to support its positions. *Id.*

Patent Owner argues that Eldridge fails to teach the “wireless network” and “wireless data communications network” limitations of the claims. PO Resp. 16–21. On the complete record, we are persuaded by Petitioner’s explanations and evidence in support of the obviousness ground for claims 1–4, 8, 9, 16, and 18 over Eldridge and Thomason. We address below the evidence, analysis, and arguments presented by the parties.

1. Independent Claim 1

Petitioner contends that the subject matter of claim 1 would have been obvious in view of Eldridge and Thomason. Pet. 19–32.

a. Preamble

Claim 1 recites a “method of brokering video data between handheld wireless devices and video-enabled data rendering devices.” Ex. 1001, 12:54–13:6. Petitioner contends that, to the extent that the preamble is limiting, the combination of Eldridge and Thomason teaches all of its elements. Pet. 20. Petitioner asserts that Eldridge teaches a “mobile computing device (a WD) 118 and the devices to print, display, and forward the data, including video data 102,” and also teaches a “process that includes printing, displaying, and forwarding documents (video data) to devices over

networks 116 and 122.” *Id.* (citing Ex. 1005, Fig. 1, Abstract, 7:31–35, 13:12–14; Ex. 1008 ¶¶ 67–70).

Petitioner further asserts that “Thomason discloses a video-enabled DRD that renders (displays) video data.” *Id.* at 20–21 (citing Ex. 1006, Fig. 3, 5:51–54; Ex. 1008 ¶ 71). Petitioner argues that a person of ordinary skill in the art “would have been motivated to modify Eldridge to include a video-enabled DRD (e.g., a video monitor), as taught by Thomason,” thereby allowing forwarding of Eldridge’s “documents (video data) to the video-enabled rendering device.” *Id.* at 21–22 (reproducing Ex. 1005, Fig. 1, annotated to show the proposed modification). According to Petitioner, such a modification “is the combination of prior art elements (a technique for displaying video data on an audio-visual view station as in Eldridge and a video monitor as taught by Thomason) according to known methods (providing video signals to the video monitor) to yield the predictable result of displaying video data.” *Id.* at 16–17 (citing *KSR*, 550 U.S. at 416).

Petitioner further contends that an ordinarily skilled artisan “would have had a reasonable expectation of success in modifying Eldridge to include a video monitor, as in Thomason, for rendering video data at least because of the explicit suggestion by Eldridge itself and because Thomason indicates that its local station 108 may be implemented using off-the-shelf parts.” *Id.* at 17 (citing Ex. 1005, 5:13–25, 7:31–35; Ex. 1006, 6:23–50); *see also* Tr. 57:22–58:12 (arguing that Eldridge’s printer is “capable of printing videos or viewing videos”). Petitioner’s contentions regarding the motivation to combine Eldridge and Thomason in the proposed manner are supported by Dr. Houh’s testimony. Ex. 1008 ¶¶ 62–65.

Patent Owner does not present arguments specifically directed to the preamble or the motivation to combine Eldridge and Thomason, but makes an argument about Eldridge’s teaching of a “wireless network,” which we address below. *See* PO Resp. 16–21.

On the complete record, we find that Petitioner provides sufficient evidence that the combination of Eldridge and Thomason teaches the preamble of claim 1.¹⁵ We also find Dr. Houh’s testimony to be credible and supports Petitioner’s contentions, and we perceive no persuasive evidence that contradicts that testimony. Further, Petitioner’s rationale for combining the teachings of Eldridge and Thomason is logical, consistent with, and supported by the cited evidence. Accordingly, we are persuaded that a person of ordinary skill in the art would have been motivated to combine Eldridge and Thomason as proposed by Petitioner.

b. “selecting video data from a handheld wireless device (WD) for rendering by a video-enabled data rendering device (DRD)”

Petitioner contends that Eldridge teaches selecting a document token from a handheld WD for rendering by a DRD, and teaches that each token is associated with a document. Pet. 22–23 (citing Ex. 1006, Figs. 5–8, 9:31–43, 1:60–61; Ex. 1008 ¶ 74). Because document data in Eldridge may include video data, Petitioner contends that the selection of a document token would include the selection of video data. *Id.* at 23 (citing Ex. 1006, 7:31–35; Ex. 1008 ¶ 74). Petitioner further contends that the selection of data is for rendering by a video-enabled DRD because Eldridge teaches

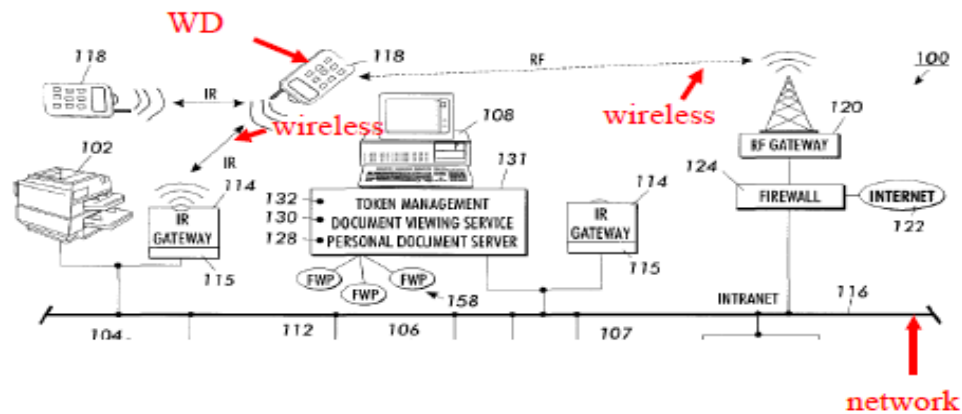
¹⁵ Although we need not decide whether the preamble of claim 1 is limiting, Petitioner has shown that the recitation in the preamble is satisfied by the prior art.

delivering the selected document to a “viewing driver” or an “audio-visual view station.” *Id.* at 23 (citing Ex. 1005, 5:13–21, 13:12–14; Ex. 1008 ¶ 75). As discussed above, Petitioner asserts a person of ordinary skill in the art would have been motivated to modify Eldridge to render the video data on a video-enabled DRD in view of Thomason. *Id.* at 23–24 (citing Ex. 1008 ¶ 76); *see also id.* at 15–17.

Patent Owner makes no arguments disputing the prior art teaching of this limitation, *see generally* PO Resp., and based on the entirety of the record, we determine that Petitioner has provided persuasive evidence that the combination of the asserted prior art references teaches this claim limitation.

- c. *“requesting assistance from a wireless data communications network supporting wireless communications of said WD to locate the video-enabled DRD for display of said video data”*

Petitioner contends that Eldridge teaches a “wireless data communications network supporting wireless communications of the WD” because the mobile computing devices 118 in Eldridge “are bridged to the wire-based networks 116 and 122 through either IR gateways 114 or RF gateway 120.” Pet. 24 (quoting Ex. 1005, 3:39–41 (emphasis omitted); citing Ex. 1005, 3:38–50; Ex. 1008 ¶¶ 79, 80). Petitioner provides a side-by-side comparison of annotated Figure 1 of Eldridge and annotated Figure 1 of the ’914 patent (*id.* at 25), reproduced below.



Eldridge at FIG. 1 (EX1005), partial, annotated

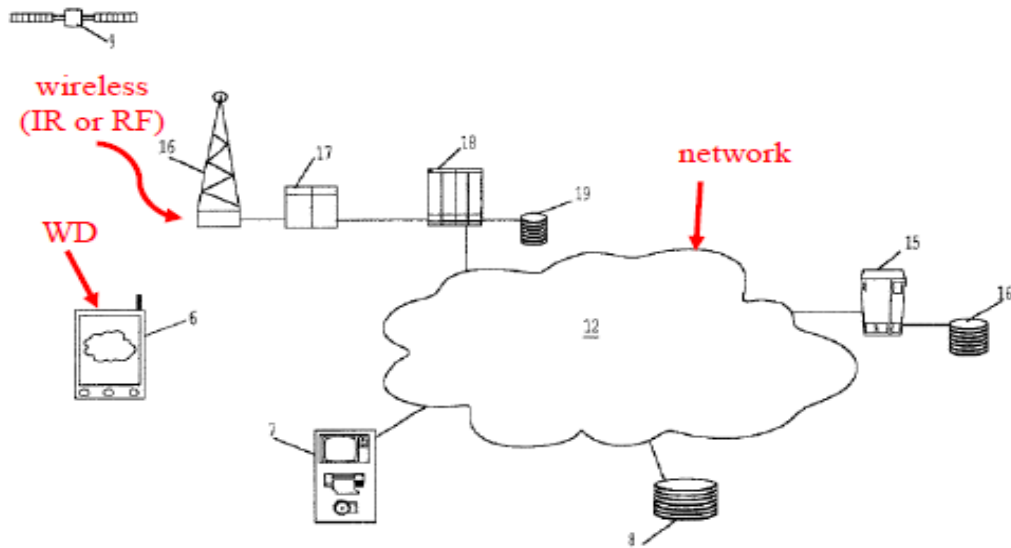


FIG. 1

The two figures above illustrate the networks of Eldridge on the top (Ex. 1005, Fig. 1) and that of the '914 patent at the bottom (Ex. 1001, Fig. 1), respectively, annotated by Petitioner in support of its argument that “Eldridge teaches a similar wireless network as in the '914 Patent.” *Id.* at 24 (citing Ex. 1008 ¶ 81). Petitioner contends that Eldridge teaches this claim limitation because it discloses mobile computing device 118 transmitting a request for a list of available transaction services “over the IR gateway 114

to a transaction server 144 to locate a DRD (e.g., printer, scanner, audio-visual view station) that can render a document (e.g., video data) for display of the document.” *Id.* at 26 (citing Ex. 1005, 10:23–53, 4:25–37; Ex. 1008 ¶¶ 82, 83). Petitioner once again relies on Thomason as teaching a video-enabled DRD. *Id.* at 26–27 (citing Ex. 1008 ¶¶ 78-84).

Patent Owner responds that, rather than teaching a wireless network, “Eldridge uses a wire-based network to locate and identify a DRD” because when a user wishes to print a document, “mobile computer device 118 transmits a request for a list of available transaction services . . . to wire-based networks 116 and 122.” PO Resp. 17 (quoting Ex. 1005, 10:35–55). Patent Owner argues that that request “is submitted to the wire-based network—the transaction server and the directory server—which generates ‘a list of available services.’” *Id.* Patent Owner further argues that it is the wire-based network in Eldridge that identifies the DRD because *all* of the token-aware servers, i.e., transaction server 144, document delivery server 138, shared document server 134, network file server 104, document delivery server 138, and printer 102 are all “coupled” to the wire-based network. *Id.* (citing Ex. 1005, Fig. 1, 11:1–46, 3:28–29, 4:13–18).

Patent Owner’s argument is unavailing because it ignores that the request from the mobile computer device “is transmitted to wire-based networks 116 and 122 *through either gateway 114 or 120*,” both of which are *wireless* gateways. Ex. 1005, 10:27–28 (emphasis added); *see also id.* at 4:16–17 (referring to elements 114 and 120 as “the RF and IR gateways”), 6:18–20 (the RF gateway is connected to a wireless network). Eldridge further discloses that the “mobile computing devices communicate with each other or other wire-based or wireless devices using either an IR (Infrared) or

a radio (RF) transceiver.” *Id.* at 3:41–44. Thus, the mobile computing devices in Eldridge are connected to other devices and to the transceiver wirelessly, forming a network that is connected *wirelessly*, and therefore, the request from a mobile device for a list of available transaction services is, at least initially, submitted to a network that is connected wirelessly.¹⁶

As discussed above (*supra* Section II.C.1), we do not construe “wireless data communications network” so narrowly as to exclude *all* communications with wire-based devices. Also, as discussed above (*id.*), the specification of the ’914 patent supports that the network servers that assist in locating and identifying a DRD may be connected to a wire-based network. *See* Ex. 1001, 11:43–51 (disclosing that a network server receives the request from the WD and “locates and identifies a DRD to the WD matching the profile 92.”). Nothing in the ’914 patent specification suggests that the network server has to be connected *wirelessly* to the WD. *See, e.g., id.* at 7:51–56 (listing wire-based networks to which DRD and other servers may be connected). In the same manner, Eldridge discloses that servers that generate the list of available services have a wire-based connection to network 116, but they are connected through a wireless network to the mobile computing devices 118. Ex. 1005, Fig. 1, 10:35–37. Petitioner’s comparison of the two figures (reproduced above) as teaching similar wireless networks, supported by Dr. Houh’s testimony that we credit, is therefore persuasive.

¹⁶ Contrary to Patent Owner’s assertion (PO Resp. 16), this claim limitation does not require that the wireless network *actually locate* a DRD, but requires only that the WD “*request[] assistance from*” the wireless network to locate the DRD. Ex. 1001, 12:60–64.

Patent Owner also appears to distinguish the network disclosed in Eldridge by arguing that it is merely a “bridge,” and not an actual wireless network. *See, e.g.*, Tr. 46:8–25, 48:2–7 (“It’s a bridge. It’s not a network.”); 47:6–22 (arguing that a wireless network “is not part of Figure 1” of Eldridge). We understand Patent Owner’s argument to be that Eldridge does not disclose a “wireless network” because there is no *express* disclosure in Eldridge’s Figure 1 of certain wireless network elements, such as the MSC, HLR, and VLR, disclosed in the ’914 patent specification. Tr. 48:25–49:14. Patent Owner’s argument is inconsistent with Eldridge’s disclosure of various cellular networks. For example, Eldridge discloses the use of “any suitable wireless network such as PCS, GSM, or pager messaging,” and discloses, as an example of its mobile computing device, a Nokia 9000 Communicator. Ex. 1005, 3:41–49, Fig. 1 (depicting a cellular antenna as element 120, the RF gateway). We find that a person of ordinary skill in the art would have understood that disclosure as teaching a “wireless data communications network.”

We, therefore, find Patent Owner’s arguments unavailing, and based on our review and consideration of the entire record, we determine that Petitioner has shown by a preponderance of the evidence that the combination of the asserted prior art references teaches this claim limitation.

d. “selecting at least one video-enabled DRD identified by said wireless data communications network for rendering of said video data from at least one of said WD or a remote server associated with said WD”

Petitioner argues that Eldridge teaches presenting a “Services Directory” screen, listing available print services to the user, the user selecting a specified print service from among the print services available in

the building, and that Eldridge’s document includes video data. Pet. 27–28 (citing Ex. 1005, Fig. 8, 10:54–67; Ex. 1008 ¶¶ 86–88). Petitioner once again contends that a person of ordinary skill in the art would have been motivated to modify the DRD of Eldridge to be a video-enabled DRD in view of Thomason. *Id.* at 28 (citing Ex. 1008 ¶¶ 85–89).

Patent Owner responds that Eldridge’s “*wire-based* network identifies the DRD that is selected.” PO Resp. 17. Patent Owner’s arguments are once again limited to the nature of the network that identifies the DRD. *Id.* 17, 20 (citing Ex. 1005, 11:1–46, 10:41–55).

For the reasons discussed above, we do not agree with Patent Owner’s arguments that Eldridge fails to teach a DRD identified by a “wireless data communications network.” Eldridge explains that the list of available services is transmitted from transaction server 144 to network gateway 114/120, and from there, *wirelessly*, to the mobile computing device. Ex. 1005, 10:47–53. Patent Owner fails to persuasively explain how Eldridge’s teaching is different from the ’914 patent, which discloses that a network server (depicted as element 15 in Figure 1, on the other side of network 12 from the WD 6) identifies a DRD to the WD (Ex. 1001, 11:43–51), and fails to persuasively explain why Eldridge fails to teach or suggest this limitation.

Based on the entirety of the record, we find that Petitioner has shown by a preponderance of the evidence that the asserted prior art teaches this limitation.

- e. *“providing said video data to said video-enabled DRD, after an authorization code provided by said WD is verified by said DRD, from at least one of: said WD via RF or IR transmission and said remote server via a data network supporting communication with said video-enabled DRD”*

Petitioner contends that Eldridge teaches fetching a document selected by the user for printing from a shared document server 134 and providing it in print-ready format to the specified printer 102. Pet. 29 (citing Ex. 1005, Abstract, 11:32–53, 7:31–35; Ex. 1008 ¶ 91). Petitioner further contends that Eldridge teaches security elements included within document tokens, and teaches using a user’s public key in authenticating the document token before fetching the document from its location, e.g., the network file server. *Id.* at 29–30 (citing Ex. 1005, 5:26–49, 4:61–62, 4:59–5:4, 11:21–53, 8:25–37; Ex. 1008 ¶ 93). According to Petitioner, Eldridge teaches the authentication code being verified by the DRD because it discloses that “authentication of the document token can be performed at network gateways 114 and 120,” and that “the IR gateway [114] can either be embedded in or be intimately associated with a device that offers document services.” *Id.* at 30 (citing Ex. 1005, 6:8–10, 11:28–29; Ex. 1008 ¶ 94).

According to Petitioner, a person of ordinary skill in the art “would have been motivated to modify the video-enabled DRD to perform the authentication at the video-enabled DRD because Eldridge discloses that the IR gateway, which can perform the authentication, can be embedded in the DRD.” *Id.*; *see also id.* at 17–18 (citing Ex. 1005, 6:7–12). Petitioner contends that “the proposed modification of Eldridge is merely a combination of prior art elements (authenticating a document token and performing the authentication at a specific device) according to known

methods (embedding the IR gateway in the DRD) to yield the predictable result of providing video data after authentication, as disclosed by Eldridge.” *Id.* at 18 (citing Ex. 1005, 11:32–46; Ex. 1008 ¶ 65).

Petitioner further argues that Eldridge teaches providing the document to a DRD from servers 134, 138 via network 116. *Id.* at 31 (citing Ex. 1005, Abstract, 11:33–46, 11:32–53, 7:31–35; Ex. 1008 ¶ 92). Petitioner also asserts that a person of ordinary skill in the art would have been motivated to modify the DRD of Eldridge to be a video-enabled DRD in view of Thomason. *Id.* at 31–32 (citing Ex. 1008 ¶¶ 90–95).

Patent Owner does not present arguments as to this limitation. *See generally* PO Resp. Based on the entirety of the record, we determine that Petitioner has shown by a preponderance of the evidence that the combination of the asserted prior art references teaches this claim limitation.

f. Conclusion as to Claim 1

Based on our review and consideration of the current record, we are persuaded Petitioner has shown by a preponderance of the evidence that claim 1 of the ’914 patent is unpatentable as obvious over the combination of Eldridge and Thomason.

2. Independent Claims 9 and 16

Independent claims 9 and 16 claim subject matter substantially similar to claim 1. *See* Ex. 1001, 13:63–14:20, 14:51–63. Petitioner contends that independent claims 9 and 16 would have also been obvious over Eldridge and Thomason, and provides similar evidentiary support for its assertions as those presented for claim 1. Pet. 48–77 (citing Ex. 1008 ¶¶ 130–202). For the purposes of this Decision, the differences in the limitations of claim 1

and the corresponding limitations of claims 9 and 16 do not materially affect our analysis.

Patent Owner raises the same arguments regarding Eldridge's disclosure of a wireless network for claims 9 and 16 that it raises for claim 1. *See* PO Resp. 18–19. Specifically, with respect to claim 9, Patent Owner argues:

Claim 9 of the '914 patent includes the steps, “entering a video monitor locator request at said WD to a wireless network supporting wireless communication by said WD; wirelessly receiving a list of at least one video monitor identification and location information from said wireless network . . . [and] selecting a video monitor from the list of said at least one of video monitor identification and location information received from said wireless network . . .”

Id. at 18 (citing Ex. 1001, 14:1–9). Patent Owner argues that “[i]nstead of submitting the request for service to the wireless network, as in [c]laim 9, Eldridge submits the request to the wire-based network.” *Id.* (citing Ex. 1005, 10:35–37, 3:52–4:18). Patent Owner further argues that “Eldridge [does not] receive the DRD location and identification from the wireless network, as [c]laim 9 of the '914 patent covers,” but rather “from the wire-based network.” *Id.* at 18–19 (citing Ex. 1005, 10:41–55).

Likewise, for claim 16, Patent Owner argues, Eldridge does not teach or suggest “using a wireless network supporting a handheld wireless device (WD) . . . to locate said video monitor . . . providing said video data to said video monitor selected by said WD.” *Id.* at 19 (citing Ex. 1001, 14:54–62, 10:27–28).

Based on the entirety of the record, we are persuaded that, for the reasons discussed above in connection with claim 1 (*supra* Section II.E.1), Petitioner has shown by a preponderance of the evidence that Eldridge

teaches the “wireless network” limitation recited in claims 9 and 16, and teaches the related limitations that Patent Owner disputes based on its argument that Eldridge discloses only a wire-based network. PO Resp. 18–19. Petitioner has therefore shown by a preponderance of the evidence that claims 9 and 16 of the ’914 patent are unpatentable as obvious over the combination of Eldridge and Thomason.

3. Dependent Claim 2

Claim 2 depends from independent claim 1 and recites (a) “wherein said video data is provided to said video-enabled DRD via a network supporting said video-enabled DRD *after* a WD user identifies the video-enabled DRD to a network supporting said WD,” (b) “*a render command is provided by said WD* through said network in support of said WD to at least one of a server associated with said wireless device and a network supporting said video-enabled DRD,” and (c) “*said network* in support of said WD *facilitates transfer of said video data* to said video-enabled DRD from said server through said data network supporting communication with said video-enabled DRD.” Ex. 1001, 13:7–20 (emphases added).

Petitioner contends that Eldridge teaches limitation (a) because it discloses “providing data, which may include video data, to the DRD *after* the user employs the interface of Figure 8 to select the DRD coupled to the IR port and networks 116 and 126 by identifying the DRD to the networks including server 144.” Pet. 33–35 (citing Ex. 1005, 10:54–67; 3:23–37, 7:31–35, 11:1–14, 11:32–53, Figs. 1, 8; Ex. 1008 ¶¶ 96–101).

Petitioner contends that Eldridge teaches limitation (b) because it discloses “the print command (render command) transmitted to servers 138 and 144 (servers associated with the WD).” *Id.* at 35–36 (citing Ex. 1005,

10:56–59, 10:54–67, 11:1–14, Figs. 1, 8). Petitioner further contends that Eldridge provides the document to the DRD *after* the device 118 transmits the print command via networks 116 and 126 to the transaction server 144 and document delivery server 138. *Id.* at 36–37 (citing Ex. 1008 ¶¶ 102–105).

Petitioner contends that Eldridge teaches limitation (c) because it discloses “the delivery server 138 transferring the document, which may include video data, from the server 134 to the rendering device over networks 116 and 126.” *Id.* at 37–39 (citing Ex. 1005, 11:32–53). Petitioner once again argues that a person of ordinary skill in the art would have been motivated to modify the DRD of Eldridge to be a video-enabled DRD in view of Thomason, thereby teaching the transfer of video data to a video-enabled DRD through a data network. *Id.* at 38–39 (citing Ex. 1008 ¶¶ 106–108).

Patent Owner does not present separate arguments as to dependent claim 2. *See generally* PO Resp. We adopt as our own Petitioner’s argument and cited evidence showing that the combination of Eldridge and Thomason teaches the additional limitations in claim 2. Based on the entirety of the record, we are persuaded Petitioner has shown by a preponderance of the evidence that claim 2 is unpatentable as obvious over the combination of Eldridge and Thomason.

4. Dependent Claim 3

Claim 3 depends from claim 1 and recites “wherein said video-enabled DRD displays said video data on at least one of a video monitor and multimedia projector after a render command is provided to the video-enabled DRD.” Ex. 1001, 13:21–25. Petitioner contends that Eldridge

teaches that server 138 sends the document in a print-ready format, at the request of the device 118 (a render command), from the server 134 to the specified printer 102. Pet. 39, 40 (citing Ex. 1005, 11:33–53); Pet. Reply 9–10. As discussed above, Petitioner contends that a person of ordinary skill in the art would have been motivated to modify the DRD of Eldridge to be a video-enabled DRD in view of Thomason, thereby teaching a video-enabled DRD that displays video data on a video monitor. Pet. 39. Petitioner thus argues that claim 3 would have been obvious in view of Eldridge and Thomason. Pet. at 39, 40 (citing Ex. 1008 ¶¶ 109–114).

Patent Owner does not present separate arguments as to claim 3. *See generally* PO Resp. We adopt as our own Petitioner’s argument and cited evidence showing that the combination of Eldridge and Thomason teaches the additional limitation in claim 3. Based on the entirety of the record, we are persuaded Petitioner has shown by a preponderance of the evidence that claim 3 is unpatentable as obvious over the combination of Eldridge and Thomason.

5. Dependent Claim 4

Claim 4 depends from claim 3 and recites “wherein displaying said video data by said video-enabled DRD on said at least one of a video monitor and multimedia projector is controlled by the WD through said data network supporting communication with said video-enabled DRD.” Ex. 1001, 13:26–31. According to Petitioner, Eldridge teaches that the WD interface shown in Figure 8 of Eldridge controls the displaying by Eldridge’s DRD through the network that includes server 138. Pet. 40–42 (citing Ex. 1005, 10:54–56, 11:1–14, 11:54–67, Figs. 4B, 8). Petitioner further explains that “Eldridge’s request from device 118 controls the displaying (which

occurs after the render command) because the request controls the content of *what* is going to be displayed.” Pet. Reply 10 (emphasis added); Tr. 27:9–23, 28:7–15, 56:11–24. Petitioner relies on the disclosure of Thomason as teaching a video-enabled DRD that displays video data on a video monitor. Pet. 42. Petitioner therefore argues that claim 4 also would have been obvious in view of Eldridge and Thomason. *Id.* (citing Ex. 1008 ¶¶ 115–120).

Patent Owner does not present separate arguments as to claim 4. *See generally* PO Resp. We adopt as our own Petitioner’s argument and cited evidence showing that the combination of Eldridge and Thomason teaches the additional limitation in claim 4. Based on the entirety of the record, we are persuaded Petitioner has shown by a preponderance of the evidence that claim 4 is unpatentable as obvious over the combination of Eldridge and Thomason.

6. Dependent Claim 8

Claim 8 depends from claim 1 and additionally recites “wherein said selecting at least one video-enabled DRD is further accomplished by” (a) “requesting said data communications network supporting said WD to locate and communicate with at least one video-enabled DRD, wherein location of said video-enabled DRD is based upon location of said WD or a WD user location,” and (b) “requesting said network to provide said WD with at least one of identity and location information for at least one video-enabled DRD.” Ex. 1001, 13:21–25. Petitioner contends that Eldridge teaches “device 118 (via Fig. 8) requesting servers 134, 138, 144 to locate and communicate with a DRD (e.g., printer 102),” and teaches the delivery server 138 transmitting the document in a print-ready format to the DRD.

Pet. 43–45 (citing Ex. 1005, 10:35–67, 11:1–14, 11:32–53; Ex. 1008 ¶¶ 121–124). Petitioner further contends that “Eldridge teaches the location of the DRD is based upon the location of the device 118 (WD) and its user by disclosing that the IR gateway 114 receiving the request appends location context information to the request.” *Id.* at 45, 46 (citing Ex. 1005, 10:24–32, 10:23–53, 4:25–37, Fig. 4B; Ex. 1008 ¶¶ 125–127). As discussed above, Petitioner relies on Thomason as teaching a video-enabled DRD, and argues that the combination of Eldridge and Thomason discloses limitation (a). *Id.* at 44, 46.

With regard to limitation (b) of claim 8, Petitioner contends that Eldridge teaches requesting networks 116, 126 to provide location information of the DRD based on a WD location context appended by the IR gateway 114. *Id.* at 47, 48 (citing Ex. 1005, 10:24–32, 10:23–53, 4:25–37, Figs. 4B, 8; Ex. 1008 ¶¶ 128–129). Petitioner therefore argues that claim 8 also would have been obvious in view of Eldridge and Thomason. *Id.* at 48.

Patent Owner does not present separate arguments as to claim 8. *See generally* PO Resp. We adopt as our own Petitioner’s argument and cited evidence showing that the combination of Eldridge and Thomason teaches the additional limitations in claim 8. Based on the entirety of the record, we are persuaded Petitioner has shown by a preponderance of the evidence that claim 8 is unpatentable as obvious over the combination of Eldridge and Thomason.

7. Dependent Claim 18

Claim 18 depends from claim 16 and recites “wherein said rendering of data at said video monitor follows a command by said WD provided to said video monitor over a local wireless network.” Ex. 1001, 15:3–7.

Petitioner contends that Eldridge teaches the added limitation of claim 18 because Eldridge discloses that “device 118 transmits a request that causes server 138 to send a document to the rendering device, where the request and document operate as command.” Pet. 78 (citing Ex. 1005, 11:1–14, 11:33–53, 11:42–46, Fig. 8).

Petitioner further contends Eldridge teaches that the command is received over a local wireless network. *Id.* (citing Ex. 1005, 3:38–50, 3:32–37). According to Petitioner, “Eldridge’s intranet 116 bridged to the mobile communications devices 118 via the IR gateway 114 and RF gateway 120 teaches a local ‘wireless network’” over which the request from the wireless device is transmitted. *Id.* As discussed above, Petitioner relies on Thomason as teaching a video-enabled DRD. *Id.* at 78, 79. Petitioner therefore argues that claim 18 also would have been obvious in view of Eldridge and Thomason. *Id.* at 79, 80 (citing Ex. 1008 ¶¶ 203–210).

Patent Owner does not present separate arguments as to dependent claim 18. *See generally* PO Resp. We adopt as our own Petitioner’s argument and cited evidence showing that the combination of Eldridge and Thomason teaches the additional limitation in claim 18. Based on the entirety of the record, Petitioner has shown by a preponderance of the evidence that claim 18 is unpatentable as obvious over the combination of Eldridge and Thomason.

F. Asserted Obviousness of Claims 5 and 6 in view of Eldridge, Thomason, and Kim

Petitioner asserts that dependent claims 5 and 6 are unpatentable under 35 U.S.C. § 103 as obvious in view of Eldridge, Thomason, and Kim. Pet. 80–84 (citing Ex. 1008 ¶¶ 211–229).

Claim 5 depends from claim 1 and recites “wherein said video data is provided to said video-enabled DRD for rendering and display on said at least one of a video monitor and multimedia projector directly from said WD.” Ex. 1001, 13:32–36. As discussed above, Petitioner has shown that the combination of Eldridge and Thomason teaches rendering video data on a video monitor. *See* Pet. 82. Further, Petitioner persuasively argues that Kim teaches providing video data *directly* from a wireless device to a video-enabled DRD. *Id.* at 83 (citing Ex. 1007, Abstract, 2:3–9, 3:66–4:26). Accordingly, we are persuaded that the combination of Eldridge, Thomason and Kim teaches the additional limitation recited in claim 5. *See id.* (citing Ex. 1008 ¶¶ 211, 217–225).

Claim 6 depends from dependent claim 5 and recites “wherein said video data is rendered by said video-enabled DRD on said at least one of a video monitor and multimedia projector after said render command is provided by said WD to said video-enabled DRD.” Ex. 1001, 13:37–42. Petitioner argues that Eldridge teaches that “the document in a print ready format, sent at the request of the device 118, teaches a render command,” and “[b]ased on the modification in view of Thomason, the render command sent to Eldridge’s printer would result in the render command being sent to a video monitor.” Pet. 84 (citing Ex. 1005, 7:31–35, 11:33–53). Accordingly, Petitioner persuasively argues that the additional limitation recited in claim 6 is obvious over Eldridge and Thomason. *Id.* (citing Ex. 1008 ¶¶ 226–229).

We also agree with Petitioner that a person of ordinary skill in the art would have been motivated to combine Eldridge, Thomason, and Kim as proposed. Pet. 80–82. In particular, Dr. Houh testifies that Kim teaches an Internet-connected cellular phone that includes a video recording device and

memory to store the recorded video, and that a person of ordinary skill in the art would have been motivated to modify the Eldridge and Thomas combination using the teachings of Kim such that Eldridge's wireless devices would include the ability to record video, store it to memory, and then transmit that data directly to a personal computer for viewing. Ex. 1008 ¶¶ 213–217 (citing Ex. 1005, 8:25–37; Ex. 1007, 2:3–9, 4:3–10, 1:19–29, 3:66–4:26). Dr. Houh further testifies that a person of ordinary skill in the art would have had an expectation of success because those modifications to the Eldridge and Thomas combination could have been made using commercially-available devices connected over the Internet. *Id.* ¶ 217.

We find Dr. Houh's testimony to be well-reasoned and credible, and we perceive no persuasive evidence that contradicts that testimony. Further, Petitioner's rationale for combining the teachings of Kim with the teachings of Eldridge and Thomason is consistent with and supported by the cited evidence. Patent Owner does not present any contrary arguments. We adopt as our own Petitioner's argument and cited evidence as to the obviousness of claims 5 and 6. Based on the entirety of the record, we are persuaded Petitioner has shown by a preponderance of the evidence that claims 5 and 6 would have been obvious over Eldridge, Thomason, and Kim.

III. CONCLUSION

For the reasons set forth above, we determine that Petitioner has established by a preponderance of the evidence that claims 1–6, 8, 9, 16, and 18 of the '914 patent are unpatentable.¹⁷

¹⁷ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice*

In summary:

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–4, 8, 9, 16, 18	103	Eldridge, Thomason	1–4, 8, 9, 16, 18	
5, 6	103	Eldridge, Thomason, Kim	5, 6	
Overall Outcome			1–6, 8, 9, 16, 18	

IV. ORDER

Accordingly, it is

ORDERED that claims 1–6, 8, 9, 16, and 18 of U.S. Patent No. 8,971,914 B2 have been shown to be unpatentable; and

FURTHER ORDERED, that because this is a final written decision of the Board under 35 U.S.C. § 318(a), any party to this proceeding seeking judicial review of our decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

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FOR PETITIONER:

Alyssa J. Holtslander
Jonathan R. Stroud
UNIFIED PATENTS INC.
alyssa@unifiedpatents.com
jonathan@unifiedpatents.com

David M. O'Dell
David L. McCombs
Thomas Kelton
HAYNES & BOONE, LLP
david.odell.ipr@haynesboone.com
david.mccombs.ipr@haynesboone.com
thomas.kelton.ipr@haynesboone.com

FOR PATENT OWNER:

Alistair Chan
ALISTAIR CHAN IP LLC
ac@achanip.legal

Matthew M. Wawrzyn
WAWRZYN LLC
matt@wawrzynlaw.com