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Paper 10
Entered: November 8, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS, LLC,
Petitioner,

v.

FLEXIWORLD TECHNOLOGIES, INC.,
Patent Owner.

IPR2022-00775
Patent 9,836,257 B2

Before TERRENCE W. McMILLIN, CHRISTOPHER L. OGDEN, and BRENT M. DOUGAL, *Administrative Patent Judges*.

OGDEN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Petitioner Unified Patents, LLC ("Unified") filed a Petition (Paper 1, "Pet.") under 35 U.S.C. §§ 311–319 requesting *inter partes* review of claims 27 and 28 of U.S. Patent No. 9,836,257 B2 (Ex. 1001, "the '257 patent"). Patent Owner Flexiworld Technologies, Inc. ("Flexiworld") filed a Preliminary Response (Paper 8, "Prelim. Resp.").

Under the authority delegated to us by the Director under 37 C.F.R. § 42.4(a), we may institute an *inter partes* review when "the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a); *see also* 37 C.F.R. § 42.108(c) (2021). Applying that standard, we institute an *inter partes* review of all the challenged claims of the '257 patent for the reasons explained below. This is a preliminary decision, and we will base our final written decision on the full trial record, including any timely response and evidence submitted by Flexiworld.

II. BACKGROUND

A. RELATED PROCEEDINGS

As a related matter, the parties identify *Flexiworld Technologies, Inc. v. Roku, Inc.*, No. 6:21-cv-00767-ADA (W.D. Tex. filed July 27, 2021). Pet. 81; Paper 5, 2.

B. THE '257 PATENT (EX. 1001)

The '257 patent describes "[a] method of transferring digital content from a mobile wireless information apparatus such as a smart phone . . . to a wireless output device associated with a television by short range wireless communication." Ex. 1001, code (57). The output device can also be an "audio output device[]." *Id.* at 1:46. The short-range wireless communication "is compatible with IEEE802.11 or with Bluetooth™ standard for output." *Id.* at code (57).

According to the '257 patent, at the time of the claimed invention, if a user wished to send digital content to an output device, they would first need to install a device driver on their mobile device corresponding to the specific output device. Ex. 1001, 2:20–24. The '257 patent describes a number of difficulties associated with doing this. *See id.* at 2:57–5:35. To overcome these challenges, the '257 patent proposes "a convenient universal data output method" that "eliminates the need to install a plurality of device-dependent dedicated drivers or applications in the information apparatus." *Id.* at 5:39–46.

Figure 2A, reproduced below, is a "block diagram[] illustrating components of an operating environment that can implement" this universal data output method:

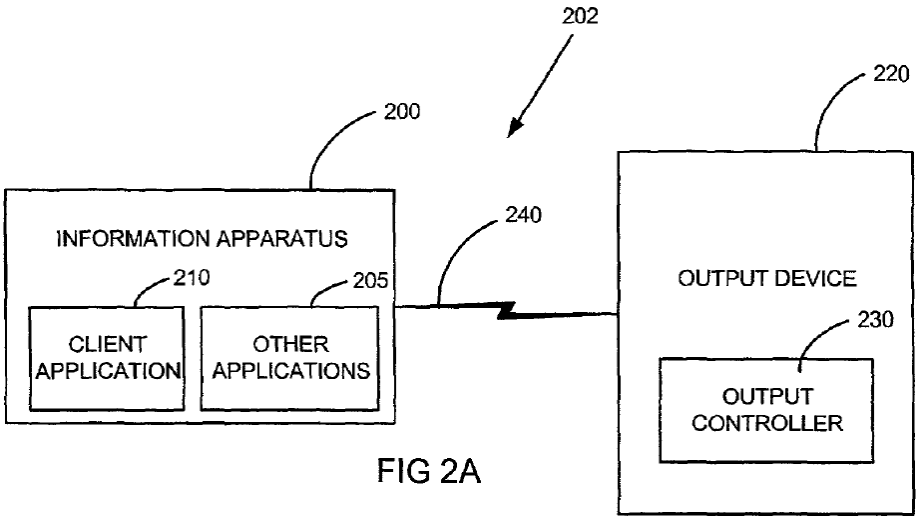

FIG 2A

Ex. 1001, 13:1–3. Figure 2A, above, shows information apparatus 200 and output device 220 in communication with each other over short-range communication interface 240 using a Bluetooth or IEEE 802.11 protocol. *Id.* at 13:3–5, 13:43–48.

Information apparatus 200 can be, among other things, a smart phone. Ex. 1001, 13:14–21. It includes "client application 210 that helps provide the universal data output capability" of the claimed invention and can be a stand-alone application, a part of another application, or a device driver. *Id.* at 14:49–51. Information apparatus 200 may also include other application software 205 such as a web browser. *See id.* at 14:18–39.

Output device 220 can be a television or an audio output device. *See* Ex. 1001, 16:18–30. It includes output controller 230, which can be implemented as hardware or software in the output device or "may be connected externally to . . . output device [220] as an external component or 'box.'" *Id.* at 6:3–6, 13:5–6. Output controller 230 may implement an access control list that "specifies what device or user may obtain service from its host (or connected) output device 220," so that "information apparatus 200

may gain access [only] after confirming with the control list." *Id.* at 21:30–37.

Client application 210 may include a "communication manager" that "helps communicate with output device 220 and manages service requests and the discovery process" for locating and identifying any potential output devices 220 in the vicinity of information apparatus 200. Ex. 1001, 31:8–20. As part of this discovery process, the communication manager obtains "some basic information, or part of the entire output device profile, from each discovered output device 220." *Id.* at 32:2–4. This may include "device identity, service charge, subscription, service feature, device capability, [and] operating instructions." *Id.* at 32:5–7. This allows a user to "select one or more output devices 220 . . . , if any," that are capable of accepting a particular digital output stream. *Id.* at 32:10–12.

The '257 patent issued on December 5, 2017 from an application filed January 18, 2002, and claims the benefit of a provisional application filed January 19, 2001. Ex. 1001, codes (22), (45), (60), 1:14–16.

C. CHALLENGED CLAIMS AND GROUNDS

Claim 27, representative of the challenged claims, is as follows:

> 27. A non-transitory computer readable medium containing software that is executable by a wireless information apparatus for outputting digital content from a wireless information apparatus to a wireless output controller device associated with a television or an audio output device, the wireless information apparatus including:
>
> [1] a display screen,
>
> [2] a graphical user interface over the display screen of the wireless information apparatus for interacting with a user,

[3] an operating system,

[4] a processor,

[5] one or more wireless communication units with at least one wireless communication unit supporting wireless local area network communication with the wireless output controller device, the wireless output controller device being a distinct device from the wireless information apparatus, wherein the software, when executed, at least partly, by the processor at the wireless information apparatus and facilitated, at least partly, by the operating system, causes the wireless information apparatus to execute a method, comprising:

[6] establishing, via the one or more wireless communication units, a wireless connection between the wireless information apparatus and the wireless output controller device that is associated with a television or an audio output device, the wireless connection further being compatible, at least partly, with at least one protocol within IEEE 802.11 wireless standards or within Bluetooth standards;

[7] implementing a security or authentication procedure that includes transmitting one or more of a user name, a password, an ID number, a security key, or a voice, individually or in any combination, over the wireless connection between the wireless information apparatus and the wireless output controller device; and

[8] subsequent to having implemented the security or authentication procedure, establishing a wireless local area network connection, between the wireless information apparatus and the wireless output controller device, the wireless local area network connection being established via the at least one wireless communication unit that is compatible, at least partly, with at least one protocol within IEEE 802.11 wireless standards for wireless local area networks;

[9] receiving, over the graphical user interface of the wireless information apparatus, at least an indication related to a

selected digital content for rendering or outputting, the selected digital content includes at least one of audio content or video content, individually or in any combination; and

[10] wirelessly transferring output data related, at least partly, to the selected digital content and over the established wireless local area network connection from the wireless information apparatus to the wireless output controller device for rendering or outputting of at least part of the selected digital content at a television or an audio output device that is associated with the wireless output controller device.

Ex. 1001, 50:8–67 (Unified's reference numbers added). Claim 28, the only other challenged claim, depends from claim 27. *See id.* at 51:1–10.

Unified argues two grounds for *inter partes* review, as summarized in the following table:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
27, 28	103(a)[1]	Olgaard,[2] Moghadam[3]
27, 28	103(a)	Acharya,[4] Griffiths[5]

Pet. 2.

D. DECLARATORY TESTIMONY

Unified submits, as expert testimony, a declaration by Dr. Immanuel Freedman. Ex. 1003; *see also* Ex. 1004 (curriculum vitae). Unified also submits a declaration of Kevin Jakel, Unified's founder and current CEO, in support of Unified's certification that it is the only real party in interest. Ex. 1014; Pet. 81. Flexiworld does not submit testimonial evidence at this stage.

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[1] 35 U.S.C. § 103(a) (2006), *amended by* Leahy–Smith America Invents Act, Pub. L. No. 112-29 § 103, sec. (n)(1), 125 Stat. 284, 287, 293 (2011) (effective Mar. 16, 2013). This version of § 103 applies because the '257 patent issued from an application filed on January 18, 2002, which is before the effective date of the AIA amendments. *See* Ex. 1001, code (22).

[2] Olgaard et al., US 7,849,198 B2 (issued Dec. 7, 2010) (Ex. 1005). Unified argues that Olgaard is prior art under 35 U.S.C. § 102(e) because it "is a continuation of a non-provisional application filed October 24, 2000," before the earliest priority date of the '257 patent. Pet. 1. Flexiworld disputes this. *See infra* Section V.C.3.

[3] Moghadam et al., US 5,917,542 (issued June 29, 1999) (Ex. 1006).

[4] Acharya et al., US 2002/0080091 A1 (published June 27, 2002) (Ex. 1007). Unified argues that Acharya is prior art under 35 U.S.C. § 102(e). Pet. 2; *see also* Ex. 1007, codes (22), (43).

[5] Griffiths, US 7,136,999 B1 (issued Nov. 14, 2006) (Ex. 1008). Unified argues that Griffiths is prior art under 35 U.S.C. § 102(e). Pet. 2; *see also* Ex. 1008, codes (22), (45).

III. REAL PARTIES IN INTEREST

Before addressing the merits of the Petition, we address Flexiworld's argument that we should decline to consider the Petition because Unified has allegedly failed under 35 U.S.C. § 312(a)(2) to identify all real parties in interest. Prelim. Resp. 37–43. In its Petition, Unified identifies only itself as a real party in interest. *See* Pet. 81. But according to Flexiworld, Unified receives funding from subscribers within particular "technology zones," and then files petitions challenging patents within these zones, so Unified's members benefit from its filings such that they should be considered real parties in interest. Prelim. Resp. 37–38.

In particular, Flexiworld contends that Roku, Inc., as one of Unified's paying subscribers whose business would fall within the technology zone associated with the '257 patent, is an unnamed real party in interest. Prelim. Resp., 38–40. According to Flexiworld, "Roku is a clear beneficiary of [Unified]'s activities in this matter" because if Unified is successful, Roku would avoid potential liability for infringing the '257 patent." *Id.* at 40. Thus, Flexiworld contends that Roku has "a preexisting, established relationship" with Unified and is a real party in interest. *Id.* (quoting *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018)). Flexiworld also contends that Unified has failed to meet its burden to show that there are no unnamed real parties in interest such as Roku. *See id.* at 40–42.

Whether an entity is a real party in interest is a "highly fact-dependent question" and must be considered on a case-by-case basis. *Ventex Co., Ltd. v. Columbia Sportswear North America, Inc.*, IPR2017-00651, Paper 148 at 6 (PTAB Jan. 24, 2019) (citing 77 Fed. Reg. 48,756, 48,759 (Aug. 14, 2012));

Applications in Internet Time, 897 F.3d at 1351 (citing the Board's Trial Practice Guide with approval for its explanation that the real-party-in-interest inquiry is "fact-dependent" and involves "multiple factors"). And when there is no potential time bar, "the interests of cost and efficiency" are generally best served if the Board does not go through the "lengthy exercise" at the institution stage to determine whether an unnamed party is a real party in interest. *SharkNinja Operating LLC v. iRobot Corp.*, IPR2020-00734, Paper 11 at 19–20 (PTAB Oct. 6, 2020) (precedential).

Although Flexiworld has apparently asserted the '257 patent against Roku in district court (*see* Pet. 81, Paper 5, 2), Flexiworld does not allege that Roku or any other alleged real party in interest would have been time-barred under 35 U.S.C. § 315 when Unified filed the Petition on April 8, 2022. We recognize that Unified has the burden of persuasion in showing that it has complied with § 312(a)(2) in naming all real parties in interest. *Applications in Internet Time,* 897 F.3d at 1343 ("[T]he overall burden remains with the petitioner to establish that it has complied with the statutory requirement to identify all [real parties in interest]."). To this end, Unified has submitted declaratory evidence supporting its real-party-in-interest analysis. Pet. 81 (citing Ex. 1014 (declaration of Kevin Jakel)). Flexiworld may challenge this evidence at trial, and if we determine that Unified erred in its real-party-in-interest analysis, we may require Unified to amend its designation to add entities, if any, that should have been identified in the Petition. *See Wi-Fi One, LLC v. Broadcom Corp.*, 878 F.3d 1364, 1374 n.9 (Fed. Cir. 2018) (en banc) (citing *Intel Corp. v. Alacritech, Inc.*, IPR2017-01392, Paper 11, at 23 (PTAB Nov. 30, 2017); *Elekta, Inc. v. Varian Med. Sys., Inc.*, IPR2015-01401, Paper 19, at 6−10 (PTAB Dec. 31,

2015); *Lumentum Holdings, Inc. v. Capella Photonics, Inc.*, IPR2015-00739, Paper 38, at 5 (PTAB Mar. 4, 2016) (precedential)); 37 C.F.R. § 42.5(c)(3) (2021) (providing the Board with discretion to permit late-filing of mandatory notices).

Thus, given that Flexiworld has not presently alleged that any unnamed real party in interest would have been time-barred under § 315, the question of whether Unified has complied with § 312(a)(2) is more efficiently considered at trial, and we do not deny institution on that basis.

IV. DISCRETIONARY DENIAL

Next, we address Flexiworld's contention that we should deny institution based on our discretion under 35 U.S.C. § 314(a) and 37 C.F.R. § 42.108(a). Prelim. Resp. 32–37. First, Flexiworld contends that because Unified has not identified which of its subscribers fall within the relevant technology zone for the '257 patent, we are unable to determine whether we have a conflict of interest with these subscribers. *Id.* at 33–35. Thus, according to Flexiworld, instituting trial on the Petition "would undermine the integrity of this proceeding and the *inter partes* review process by calling into question whether this matter is being decided by an impartial Panel." *Id.* at 35.

As we discuss above, we do not determine, based on the preliminary record, that any of Unified's subscribers are real parties in interest. *See supra* Section III. Nor has Flexiworld pointed to any proceeding, other than the related district court proceeding against Roku, in which Flexiworld has asserted the '257 patent against any of Unified's subscribers. Thus, at this stage, we find no evidence to support Flexiworld's concern that an ethical

conflict may arise in this proceeding with respect to any of Unified's subscribers.

Second, Flexiworld argues that we should use our discretion to deny institution because Unified "does not practice the '257 Patent and . . . has no potential liability for infringement of the '257 Patent," so denying institution would be in the interests of efficiency. Prelim. Resp. 36.

Under the statutory scheme for *inter partes* reviews, filing a petition is generally open to any "person who is not the owner of [the challenged] patent." 35 U.S.C. § 311(a); *see also* 37 C.F.R. § 42.101 (2021); *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, 2022 WL 4963049, at *11, Paper 102, at 28 (PTAB Oct. 4, 2022) ("Congress did not implement a standing requirement for petitioners; any party (other than the patentee) may seek such review." (citing 35 U.S.C. § 311(a))). Thus, we find it irrelevant, in terms of promoting the efficiency of Congress's statutory scheme, whether Unified itself practices the '257 patent or might be subject to an infringement lawsuit.

For the above reasons, we decline to exercise our discretion to deny institution under 35 U.S.C. § 314(a).

V. GROUNDS OF THE PETITION

For the reasons below, we determine that Unified has shown a reasonable likelihood that it would prevail in showing that claims 27 and 28 of the '257 patent are unpatentable under both grounds of the Petition. Before analyzing these grounds in detail, we address two matters that will underlie our analysis: the level of ordinary skill in the art and the construction we will apply to the claim terms.

A. LEVEL OF ORDINARY SKILL IN THE ART

The level of ordinary skill in the pertinent art at the time of the invention is a factor in how we construe patent claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). It is also one of the factors we consider when determining whether a patent claim is obvious over the prior art. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

To assess the level of ordinary skill, we construct a hypothetical "person of ordinary skill in the art," from whose vantage point we assess obviousness and claim interpretation. *See In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). This legal construct "presumes that all prior art references in the field of the invention are available to this hypothetical skilled artisan." *Id.* (citing *In re Carlson*, 983 F.2d 1032, 1038 (Fed. Cir. 1993)).

Relying on Dr. Freedman's testimony, Unified argues that a person of ordinary skill in the art would have had "(1) an undergraduate degree in electrical and computing engineering or a closely related field; and (2) two or more years of experience in wireless content transmission," where "[m]ore relevant experience could compensate for less education, and vice versa." Pet. 7 (citing Ex. 1003 ¶¶ 36–38).

At this stage, Flexiworld does not address the level of ordinary skill in the art. *See generally* Prelim. Resp. Because Unified's articulation of that level of skill is supported by testimonial evidence and appears consistent with the types of problems and solutions in the '257 patent, we adopt it for this decision, with the understanding that Flexiworld may challenge it at trial.

B. CLAIM CONSTRUCTION

In an *inter partes* review, we construe a patent claim "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b)." 37 C.F.R. § 42.100(b) (2021). This generally includes "construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." *Id.* The ordinary and customary meaning of a claim term "is its meaning to the ordinary artisan after reading the entire patent," and "as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1313, 1321.

Unified argues that "all terms should be given their plain meaning," and does not propose any explicit constructions. *See* Pet. 8. Likewise, Flexiworld does not propose any explicit constructions at this stage. *See* Prelim. Resp. 10–11.

We do not find it necessary to explicitly construe any terms for this decision. To the extent that we need to interpret claim language, we address that language below in the context of the prior art. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy' . . . ." (quoting *Vivid Techs., Inc. v. Am. Sci & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. OBVIOUSNESS GROUND BASED ON OLGAARD AND MOGHADAM

Turning to the grounds of the Petition, Unified first argues that claims 27 and 28 are unpatentable under § 103(a) as obvious over Olgaard in view of Maghadam. Pet. 8–44.

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). When a ground in a petition is based on a combination of references, we consider "whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *Id.* at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

We base our obviousness inquiry on factual considerations 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) any objective indicia of obviousness or non-obviousness that may be in evidence. *See Graham*, 383 U.S. at 17–18.

Considering these factors,[6] we determine that Unified has shown a reasonable likelihood that claims 27 and 28 are unpatentable under 35 U.S.C. § 103(a) as obvious over Olgaard in view of Maghadam. We begin our analysis with a brief overview of Olgaard and Maghadam, and then we address the parties' contentions with respect to the challenged claims.

1. Olgaard

Olgaard is directed to solving the problem, in cell phones of that era, that there was a tradeoff between making the phone small while meeting the

[6] Because neither party argues that there are objective indicia of obviousness or non-obviousness at this stage, this does not factor into our decision.

user's expectation of having a full graphical internet experience when surfing the internet, usually provided by a large display. *See* Ex. 1005, 1:21–27, 2:51–59. Olgaard's solution was to provide a roaming network in which a user may connect a cell phone ("wireless link") to nearby graphical interface clients. *Id.* at code (57), 1:31–37. After the wireless device receives information about nearby clients, the system selects the best-suited one that is available to the user. *See id.* at 1:33–35, 2:61–62.

An overview of this system appears in Figure 1, reproduced below:

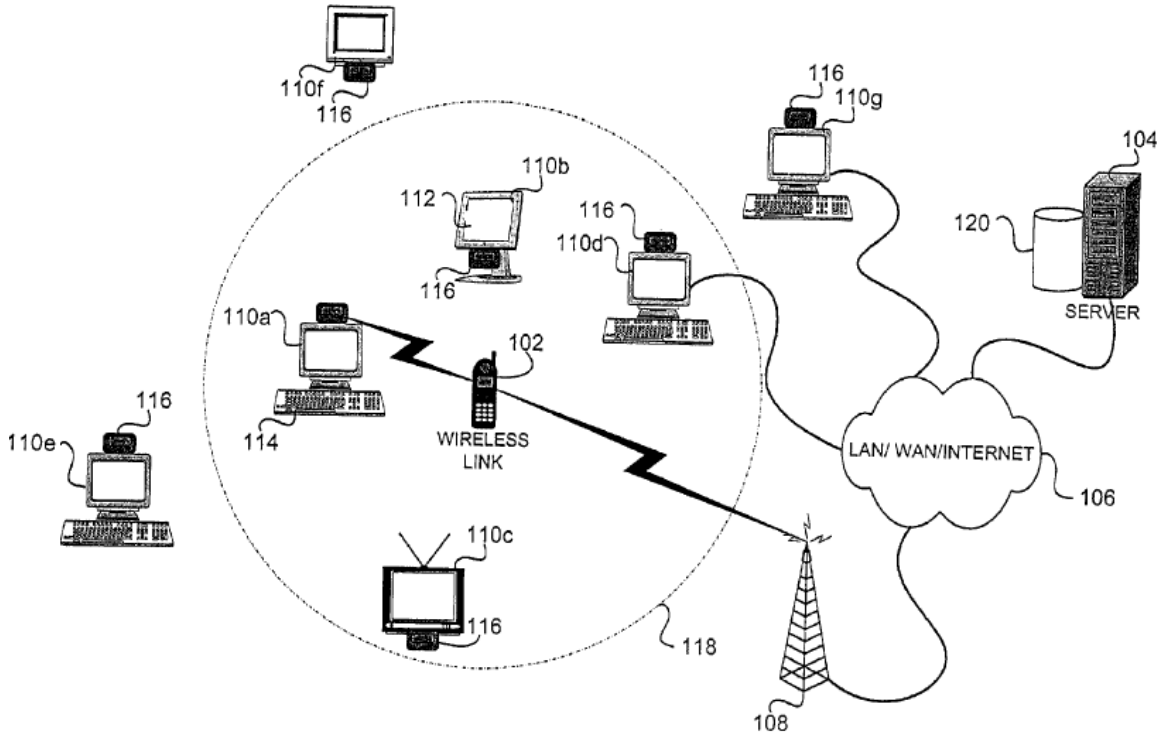

FIG. 1

Olgaard's Figure 1, above, is a schematic diagram of an interface roaming network including wireless link 102 (e.g., a cell phone) connected to infrastructure server 104 via network 106. Ex. 1005, 3:43–45. Interface clients 110*a–g* (which we refer to collectively as 110) each include a

processor and may include a monitor or television dnisplay (e.g., display 112 on interface client 110*b*). *Id.* at 3:51–55.

Olgaard discloses two main embodiments: "(1) an embodiment where a connection between an interface client [110] and an infrastructure server [104] is made via a wireless link [102]; and (2) an embodiment where a pre-existing connection exists between an interface client [110] and an infrastructure server [106]." Ex. 1005, 2:63–67. In the first embodiment, "the wireless link may be considered to act as a gateway with added functionality" including the ability to provide "personal identification information associated with the user and provide ways to encrypt the data." *Id.* at 3:7–8, 3:11–13.

In the second embodiment illustrated in Figure 1, interface clients 110*d* and 110*g* have a pre-existing connection with infrastructure server 104. *See* Ex. 1005, 3:57–61. In this embodiment, wireless link 102 serves to identify the user, and can also provide an alternative communication path between interface clients 110 and infrastructure server 104: "the interface client can communicate to the infrastructure server not only through its own link, but it can also go through the user's wireless link if available (for example if highly sensitive data must be transferred)." *Id.* at 3:23–31.

In general, each interface client 110 "includes a transceiver 116 for communicating with the wireless link (and the infrastructure server via the wireless link)." Ex. 1005, 3:62–64. Dotted circle 118 illustrates "a proximal range . . . within which interface clients (e.g., interface clients 110*a*, 110*b*, 110*c*, 110*d*) are considered within the proximity of the wireless link and outside of which interface clients (e.g., interface clients 110*e*, 110*f*, 110*g*) are considered outside the proximity of the wireless link." *Id.* at 3:65–4:3.

In one operational mode, wireless link 102 sends a signal to interface clients 110 within proximal range 118 (i.e., interface clients 110*a*, 110*b*, 110*c*, 110*d*). Ex. 1005, 6:17–21. One of these interface clients submits information about its "display capabilities" to wireless link 102. *Id.* at 6:11–14, 6:26–29. Selected interface client 110 may then receive and display content from infrastructure server 104 either via wireless link 102 (embodiment 1 or 2) or directly (embodiment 2). *See id.* at 6:14–16, 6:33–34.

2. Moghadam

Moghadam describes a system in which a digital camera may efficiently transmit a digital image, over a wireless connection, to an image fulfillment server for storage or printing. *See* Ex. 1006, code (57), 2:30–43, Fig. 1. The disclosure seeks to address the problem that, during such transmissions, "once the photographer moves out of range of the image fulfillment server, the transmission will be incomplete and that condition is not known to the photographer until [they] attempt[] to transmit another image." *Id.* at 1:26–29. Thus, Moghadam describes a system by which, if a user leaves the transmission range of the image fulfillment server for a predetermined time period, any un-transferred image data will be stored in the camera's long-term memory for later transmission. *Id.* at code (57). Moghadam discloses that transmissions between the camera and image fulfillment server are preferably by an IEEE 802.11 communications protocol including a channel-assessment signal to gauge the signal quality between the two devices at any given time. *Id.* at 2:43–50.

3. Whether Olgaard Is Prior Art

Unified argues that Olgaard is prior art under 35 U.S.C. § 102(e) because it "is a continuation of a non-provisional application filed October 24, 2000," before the earliest priority date of the '257 patent. Pet. 1; Ex. 1005, code (63). But Flexiworld argues that Unified has not met its burden to show that Olgaard is entitled to a priority date earlier than its actual filing date of August 5, 2009. Prelim. Resp. 17; Ex. 1005, code (22). For the reasons below, we determine that Unified has shown, sufficiently for institution, that Olgaard is § 102(e) prior art.

In particular, Flexiworld first contends that Olgaard's parent application, US 09/695,518 ("the '518 application"), does not support Olgaard's claim 1, which recites "receiving, wirelessly from said wireless device, . . . information about *content communication capabilities* of each of said at least one of said plurality of interface clients." Prelim. Resp. 18–19 (emphasis added) (quoting Ex. 1005, 20:49–58).[7] According to Flexiworld, "[t]he '518 application nowhere uses the term 'content communication capabilities.'" *Id.* at 19.

We disagree that the '518 application must contain the precise phrase *content communication capabilities* to support that term in Olgaard's claim 1. *See Union Oil Co. of California v. Atl. Richfield Co.*, 208 F.3d 989, 997 (Fed. Cir. 2000) ("The written description requirement does not require

[7] *See In re Wertheim*, 646 F.2d 527, 537 (CCPA 1981) (holding that a § 102(e) prior art reference is only entitled to claim the benefit of the filing date of its parent application if the parent application provides written-description support for an invention claimed in the reference patent).

the applicant 'to describe exactly the subject matter claimed, [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed.'" (alterations in original) (quoting *In re Gosteli*, 872 F.2d 1008, 1012 (Fed. Cir. 1989))). Although the '518 application does not appear to use the precise phrase *content communication capabilities*, this term in Olgaard's claim 1 appears to refer back to the preamble, which recites "an interface roaming network for communicating content to a user." Ex. 1005, 20:46–47. Thus, the plain claim language suggests that the "content communication capabilities" of an interface would be its capabilities for communicating particular content to a user.[8]

In that regard, the '518 application discloses that wireless link 102 obtains "information relating to the interface clients detected in the vicinity." Ex. 1009, 12:28–29.[9] Such information may include "information about display capabilities of the interface client." *Id.* at 14:29; *see also id.* at 14:15–17. For example, interface client 110 may report "display resolution" or "sound capability." *Id.* at 21:12–14. These reflect the interface client's capabilities for communicating content to a user by images or sound. Thus,

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[8] Neither party proposes an explicit construction for this term. Assuming that Flexiworld maintains this argument in its Patent Owner Response, Unified will have the ultimate burden of persuasion to show that the '518 application supports the phrase *content communication capabilities* in Olgaard's claim 1, and we encourage the parties to address this issue at trial. *See Dynamic Drinkware, LLC v. National Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

[9] Citations to Exhibit 1009 are to the page numbers in Unified's added footer, rather than the application's original page numbers.

the preliminary record suggests that the '518 application provides written description support for the phrase *content communication capabilities* in Olgaard's claim 1.

Next, Flexiworld argues that the '518 application does not disclose, as recited in Olgaard's claim 1, (1) conveying this information "wirelessly to a remote source," (2) "determining, by said remote source," a capability of the interface clients based on the conveyed information, or (3) "selecting, by said remote source," one of the interface clients "to communicate content based on said determined capability." Prelim. Resp. 19–20 (quoting Ex. 1005, 20:59–21:2). According to Flexiworld, the '518 application does not support such operations involving a "remote source." *See id.*

Based on the preliminary record, we disagree. We interpret the recited "remote source" to be Olgaard's infrastructure server 104. The '518 application describes reporting interface client 110's display, sound, or other capabilities back to infrastructure server 104, which uses the information to select one of the interface clients. *See* Ex. 1009, 12:27–30, 21:12–17, 41 (claims 1, 5), 47 (Fig. 3, step 304).

For the above reasons and based on the arguments and evidence available on the preliminary record, we determine that Unified is reasonably likely to prevail in showing that Olgaard is § 102(e) prior art in relation to the challenged claims. However, we recognize that Unified has the burden of persuasion on this issue, so if Flexiworld maintains this argument in its Patent Owner Response, we will revisit the issue based on the evidence as a whole presented at trial. *See Dynamic Drinkware*, 800 F.3d at 1378.

4. Independent Claim 27

(a) Preamble and limitations 1–5

The preamble of claim 27 recites "[a] non-transitory computer readable medium containing software that is executable by a wireless information apparatus for outputting digital content from a wireless information apparatus to a wireless output controller device associated with a television or an audio output device, the wireless information apparatus." Ex. 1001, 50:9–14. Limitations 1–4 recite "a display screen, a graphical user interface over the display screen of the wireless information apparatus for interacting with a user, an operating system, [and] a processor." *Id.* at 50:15–20. The first part of limitation 5 recites "one or more wireless communication units with at least one wireless communication unit supporting wireless local area network communication with the wireless output controller device, the wireless output controller device being a distinct device from the wireless information apparatus." *Id.* at 50:21–26.

The preamble and limitations 1–5 relate to the hardware associated with the claimed invention, and Unified relies on Dr. Freedman's testimony to identify structures within Olgaard's system corresponding to each of these hardware elements. *See* Pet. 12–21 (citing Ex. 1003 ¶¶ 52–66).[10] For example, Unified identifies Olgaard's wireless link 102 as the recited "wireless information apparatus" comprising elements 1–5, and identifies interface client 110*a* as the recited wireless output controller device. *See id.*

[10] Unified does not argue that the preamble is limiting, and we do not need to decide that question at this stage because we agree with Unified that Olgaard teaches the preamble. Pet. 12 & n.3; *see Nidec*, 868 F.3d at 1017.

The latter part of limitation 5 requires that "the software, when executed, at least partly, by the processor at the wireless information apparatus and facilitated, at least partly, by the operating system, causes the wireless information apparatus to execute a method [recited in the remainder of the claim]." Ex. 1001, 50:26–30. Unified contends that a person of ordinary skill in the art would have understood that Olgaard's software is performed by the processor as facilitated by the operating system. Pet. 22 (citing Ex. 1003 ¶¶ 67–70).

Flexiworld does not contest Unified's assertions above regarding the preamble or limitations 1–5 (*see generally* PO Resp.), and we find Unified's arguments sufficiently persuasive at this stage.

(b) Limitation 6

Limitation 6 recites establishing "a wireless connection between the wireless information apparatus and the wireless output controller device that is associated with a television or an audio output device, the wireless connection further being compatible, at least partly, with at least one protocol within IEEE 802.11 wireless standards or within Bluetooth standards." Ex. 1001, 50:31–48.

Relying on Dr. Freeman's testimony, Unified argues that Olgaard teaches this limitation. Pet. 23–25 (citing Ex. 1003 ¶¶ 71–74). In particular, Unified contends that Olgaard "discloses that 'a standard communication protocol can be used such as Bluetooth' for '[t]he communication between

the wireless link and the interface client.'" Pet. 24 (alteration in original) (quoting Ex. 1005, 9:51–57) (citing Ex. 1005, 6:57–62, 19:35–52).[11]

Flexiworld does not contest Unified's contentions for limitation 6. *See generally* Prelim. Resp. We find Unified's arguments sufficiently persuasive at this stage. *See, e.g.*, Ex. 1005, 9:51–57 (Olgaard disclosing that wireless link 102 may use Bluetooth to scan for interface clients 110 in the vicinity and to communicate with them).

(c) Limitation 7

Limitation 7 recites "implementing a security or authentication procedure that includes transmitting one or more of a user name, a password, an ID number, a security key, or a voice, individually or in any combination, over the wireless connection between the wireless information apparatus and the wireless output controller device." Ex. 1001, 50:39–44.

Unified argues that Olgaard discloses authentication, or alternatively encryption, as the recited "security or authentication procedure." Pet. 30–31. For authentication, Unified argues that Olgaard discloses wireless link 102 sending a user ID to interface client 110. Pet. 30–31 (citing Ex. 1005, 10:50–55, 11:12–14, 21:58–60). For encryption, Unified argues that Olgaard

[11] Alternatively, Unified argues that Olgaard, alone or in combination with Moghadam, teaches using IEEE 802.11 to establish the connection recited in limitation 6. *See* Pet. 25–30 (citing Ex. 1003 ¶¶ 71–82). Because Olgaard appears to explicitly disclose that wireless link 102 can use a Bluetooth connection to scan for and connect with nearby interface clients 110, we need not address Unified's alternative argument here. Unified makes a similar argument in the context of limitation 8, which we address below. *See infra* Section V.C.4(d).

discloses sending, from wireless link 102 to interface client 110, a user ID that "is used to encrypt data being sent to the interface client." Pet. 31 (citing Ex. 1005, 3:10–15, 6:5–8, 6:24–25).

In response, Flexiworld argues that the passages Unified relies on in Olgaard only refer to a "logon process for the interface client," but that Olgaard does not disclose an authentication process occurring at wireless link 102 (the alleged "wireless information apparatus" recited in claim 27). Prelim. Resp. 21.

Based on the preliminary evidence, we disagree. As Unified persuasively argues (Pet. 31), the logon procedure for the interface client involves participation by wireless link 102, which sends a user ID back to interface client 110. *See* Ex. 1005, 11:12–14. Olgaard also teaches that it is "advantageous that some kind of electronic identification (wireless link . . .) be used since it can identify the user and the user's infrastructure server." *Id.* at 11:15–17; *see also id.* at 10:54–60 ("The wireless link may be used to perform the user identification or may include a SIM card therein for enabling the identification. . . . If the interface client does not offer a convenient input interface, the wireless link could also be used as the input device.").[12] The claim does not define what is required to implement the security or authentication procedure other than requiring the transmission of certain information, and as discussed above, Unified has shown that Olgaard

[12] Flexiworld does not specifically address Unified's argument that Olgaard's wireless link 102 performs encryption while identifying the user to interface client 110. Pet. 31. Because we find Unified's argument regarding authentication sufficiently persuasive at this stage, we do not need to address the encryption argument.

teaches this. Based on the current record, the Petition does not appear to be missing any showing required by this claim limitation.

For the above reasons, we find Unified's arguments for limitation 7 sufficiently persuasive at this stage.

(d) Limitation 8

Limitation 8 recites, "subsequent to having implemented the security or authentication procedure" of limitation 7,

> establishing a wireless local area network connection, between the wireless information apparatus and the wireless output controller device, the wireless local area network connection being established via the at least one wireless communication unit that is compatible, at least partly, with at least one protocol within IEEE 802.11 wireless standards for wireless local area networks.

Ex. 1005, 20:45–53. Unified contends that Olgaard teaches this limitation alone or in combination with Moghadam. Pet. 32. According to Unified, after Olgaard's authentication procedure corresponding to limitation 7, "wireless link [102] contacts the interface client" 110 to initiate a connection so that "the user of the wireless link device is able to interact with the interface client." *Id.* (emphasis omitted) (quoting Ex. 1005, 7:7–12). Unified also argues that Olgaard's encryption procedure takes place *before* transmission of the encrypted content "so that only the interface client can access the formatted content." Pet. 32–33 (quoting Ex. 1005, 6:5–8). Relying on Dr. Freedman's testimony, Unified also argues that "it was well-known to use security procedures before establishing a Bluetooth connection or a WiFi connection under IEEE 802.11." Pet. 33 (citing Ex. 1003 ¶ 90).

After either authentication or encryption, Unified contends that wireless link 102 establishes a connection using its microchip transceiver

that operates in the 2.45 GHz band. Pet. 33 (citing Ex. 1005, 6:5–8). Unified also argues that Olgaard "explicitly teaches that the wireless link and interface client can be connected via a local area network." Pet. 33 (citing Ex. 1005, 3:41–50, 11:38–53); *see also* Ex. 1005, Figs. 1, 10.

Although Unified concedes that Olgaard "does not explicitly describe the transceiver as being compatible with IEEE 802.11," Unified points to a statement in Olgaard that "the connection between the wireless link and the external interface client can be *any wireless protocol* that can provide sufficient throughput and latency requirements." Pet. 33 (citing Ex. 1005, 7:52–55, 9:51–54). Relying on testimony of Dr. Freedman, Unified contends that a person of ordinary skill in the art at the time of the claimed invention would have regarded IEEE 802.11 as "a well-known wireless protocol" and as "a well-known '[s]tandard for wireless local area networks (LANs).'" Pet. 33–34 (alteration in original) (quoting Ex. 1012, 378) (citing Ex. 1003 ¶¶ 89, 91); *see also* Ex. 1003 ¶¶ 71–73.

Alternatively to the above argument based on Olgaard alone, Unified argues that Moghadam discloses using IEEE 802.11 protocols for communication between a mobile device (a camera) and another computing device, and that it would have been obvious to incorporate that teaching into Olgaard. Pet. 35–37 (citing Ex. 1003 ¶¶ 93–96); *see also* Pet. 25–30 (citing Ex. 1003 ¶¶ 75–82) (making a similar argument in the context of limitation 6).

In particular, Unified notes that Olgaard already teaches that "any wireless protocol" can be used "that can provide the sufficient throughput and latency requirements." *See* Pet. 28 (quoting Ex. 1005, 7:52–55) (citing Ex. 1005, 9:51–54). And According to Unified, Moghadam discloses IEEE

802.11 as a preferable protocol for a system that transfers digital images through an antenna over a communications link to another device. Pet. 35–36 (citing Ex. 1006, 2:43–45, 2:65–3:1); *see also* Pet. 28 (citing Ex. 1003 ¶ 78). Unified contends that a person of ordinary skill in the art would have regarded IEEE 802.11 as providing sufficient throughput and latency to be used for communication in Olgaard's system. *See* Pet. 28–29 (citing Ex. 1006, 2:43–50; Ex. 1003 ¶ 79).

In response, Flexiworld argues that the "interface client login process" that Unified relies on for its argument "only relates to giving the user access to the given interface client and does not result in any connection being established between the wireless link and the interface client (much less a wireless local area network connection, as claim 27 requires)." Prelim. Resp. 22. Moreover, Flexiworld contends that this login process is only associated with Olgaard's second embodiment in which the interface client already has a pre-existing connection with the infrastructure server. *Id.* (citing Ex. 1005, 10:43–44).

Based on the preliminary record, we find Unified's arguments as a whole sufficiently persuasive, although we agree with Flexiworld that the login process Unified relies on is associated with Olgaard's second embodiment in which there is a pre-existing connection between interface client 110 and infrastructure server 104. We note, however, that Olgaard elsewhere discloses that in the second embodiment, the content may "also go through the user's wireless link if available (for example if highly sensitive data must be transferred)." Ex. 1005, 3:28–31. It is unclear from the Petition whether Unified relies on this teaching in addition to Olgaard's login process for its argument that Olgaard, alone, teaches limitation 8.

In any event, Flexiworld does not specifically address Unified's alternative argument, which we find sufficiently persuasive at this stage, (1) that it was known in the art at the time of the claimed invention to perform security procedures *before* establishing an IEEE 802.11 connection (Pet. 33; Ex. 1003 ¶ 90) and (2) that Moghadam teaches the use of IEEE 802.11 for connections analogous to that between wireless link 102 and interface client 110 (Pet. 35–37; Ex. 1003 ¶¶ 93–96) and thus it would have been obvious to use IEEE 802.11 thereby performing security procedures *before* establishing an IEEE 802.11 connection.

For the above reasons, we find that Unified has sufficiently shown that Olgaard or the combination of Olgaard and Moghadam teaches limitation 8.

(e) Limitations 9 and 10

Limitation 9 recites "receiving, over the graphical user interface of the wireless information apparatus, at least an indication related to a selected digital content for rendering or outputting, the selected digital content includes at least one of audio content or video content, individually or in any combination." Ex. 1001, 50:54–59. Limitation 10 recites

> wirelessly transferring output data related, at least partly, to the selected digital content and over the established wireless local area network connection from the wireless information apparatus to the wireless output controller device for rendering or outputting of at least part of the selected digital content at a television or an audio output device that is associated with the wireless output controller device.

Id. at 50:60–67. For these limitations, relies on Olgaard's teachings that a user of wireless link 102 may use a graphical interface on its display screen to select digital content, and then the selected content (including video or

other multimedia content) is transmitted from wireless link 102 to interface client 110. *See* Pet. 37–40 (citing Ex. 1005, 4:33–40, 5:5–6, 6:1–8, 17:36–38; Ex. 1011, 220; Ex. 1003 ¶¶ 97–101).

Flexiworld does not contest Unified's contentions for limitations 9 or 10. *See generally* Prelim. Resp. We find Unified's arguments sufficiently persuasive at this stage.

(f) Preliminary conclusion as to claim 27

For the above reasons, we determine that Unified is reasonably likely to prevail in showing that claim 27 would have been obvious over Olgaard or the combination of Olgaard and Moghadam.

5. Dependent claim 28

Claim 28 depends from independent claim 27 and further recites that

> the wireless information apparatus is embodied at least as one of a laptop computer, a networked computer, a hand-held computer, an Internet enabled mobile phone, a smart phone, an Internet appliance, a digital camera, an e-book, or an information pad, individually or in any combination; and wherein the establishing of the wireless connection further includes a short range wireless communication based on close proximity of the wireless information apparatus to the wireless output controller device.

Ex. 1001, 51:1–10. Unified argues that Olgaard discloses that wireless link 102 may be a mobile phone or a personal digital assistant connected to the internet. Pet. 40–42 (citing Ex. 1005, 2:55–58, 3:2–4, 4:56–58, Fig. 1; Ex. 1007 ¶ 11; Ex. 1011, 358; Ex. 1003 ¶¶ 102–104).

Flexiworld does not contest Unified's contentions for claim 28. *See generally* Prelim. Resp. We find Unified's arguments sufficiently persuasive at this stage, and we therefore determine that Unified is reasonably likely to

prevail in showing that claim 28 would have been obvious over Olgaard or the combination of Olgaard and Moghadam.

D. Obviousness Ground Based on Acharya and Griffiths

Because Petitioner has shown a reasonable likelihood of prevailing with respect to both claims 27 and 28 in its ground based on Olgaard in view of Moghadam, we will institute on all grounds raised in the Petition, including the ground based on Acharya in view of Griffiths. *See SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018); *AC Techs. S.A. v. Amazon.com, Inc.*, 912 F.3d 1358, 1364 (Fed. Cir. 2019) ("[I]f the Board institutes an IPR, it must . . . address all grounds of unpatentability raised by the petitioner.").

However, for the benefit of the parties, we provide, below, an overview of Acharya and Griffiths and our preliminary view of the contested issues.

1. Acharya

Acharya discloses a system "for display of information on an external display using a handheld computing device." Ex. 1007, code (57). In one embodiment, the system "include[s] an expansion module configured to attach to a handheld computing device such as a personal digital assistan[t] (PDA)." *Id.* ¶ 15. Figure 6, reproduced below, shows an example of this system:

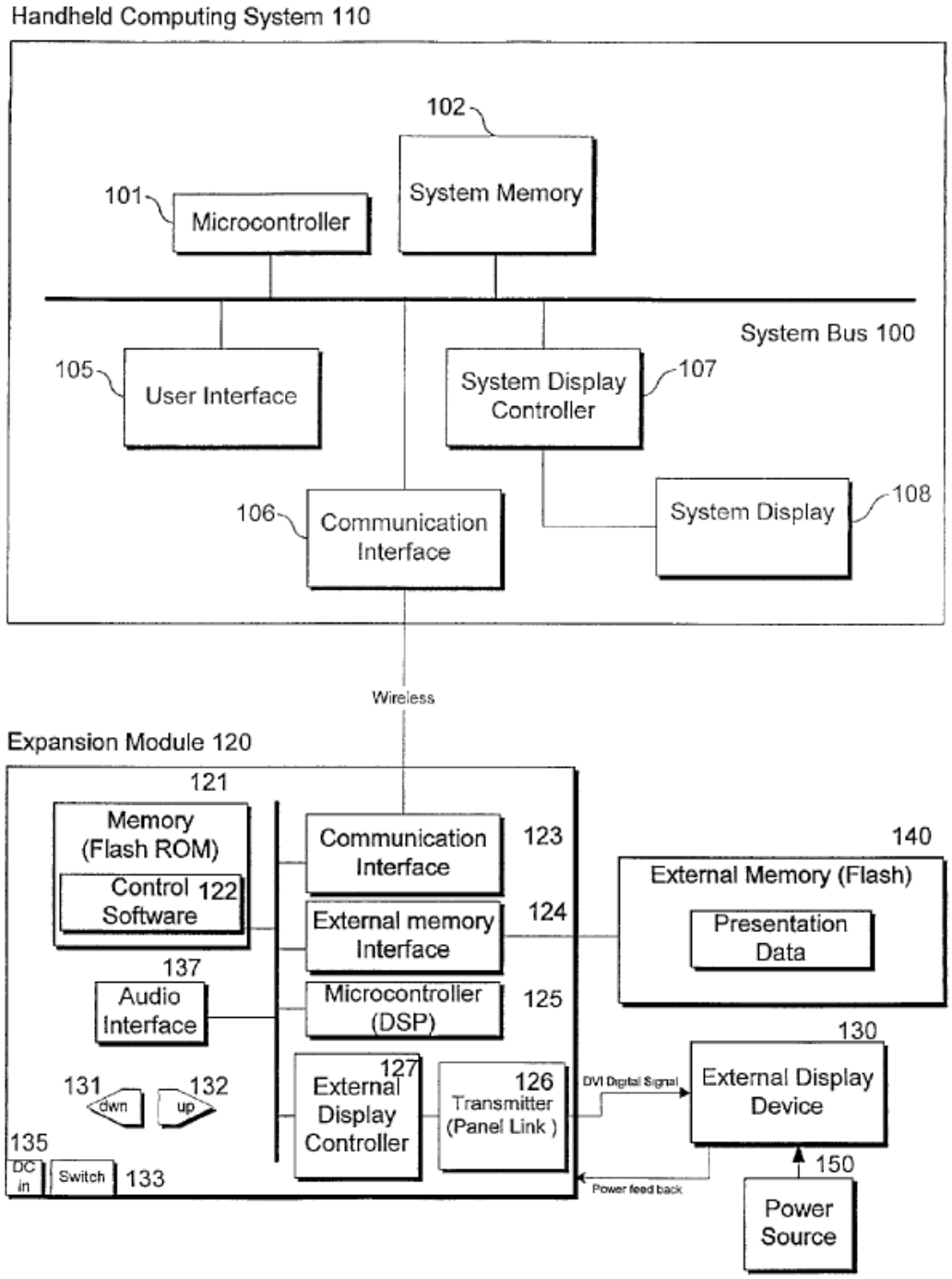

FIG. 6

Acharya's Figure 6, above, is a block diagram illustrating handheld computing system 110 in conjunction with expansion module 120 and external display device 130. Ex. 1007 ¶ 29. Handheld computing system 110

includes microcontroller 101, system memory 102, system display 108, and communication interface 106. *Id.* ¶ 16.

Expansion module 120 includes communication interface 123 for connecting with handheld device 110's communication interface 106. Ex. 1007 ¶ 17. Expansion module 120 also includes transmitter 126 that receives an output stream generated by external display controller 126 and converts it to a DVI digital signal for presentation on external display device 130. *Id.* ¶ 84.

In Figure 6 above, the connection between handheld device 110 and expansion module 120 is depicted as "[w]ireless." *See* Ex. 1007 ¶ 107 (stating that in Figure 6, "embodiments of the system are implemented such that handheld computing system 110, expansion module 120, and external display device 130 can communicate in a wireless environment"). This wireless connection can use Bluetooth or IEEE 802.11 protocols. *Id.* ¶¶ 108–109.

2. Griffiths

Griffiths describes a method for authenticating two electronic devices to each other initially over a short-range wireless link, and then afterwards, the devices may communicate with each other over an alternative, longer-range communications link as if they were in range of the original short-range link. *See* Ex. 1008, code (57), 2:9–23. The protocol for the initial short-range link is preferably Bluetooth, while the secondary communication link can be "any alternative link such as a wide area network (WAN), a local area network (LAN), or the like." *Id.* at 2:35–39.

3. Limitation 5

Among other things, limitation 5 requires that "the wireless output controller device [is] a distinct device from the wireless information apparatus." Ex. 1001, 50:24–26. Unified contends that in Acharya, handheld computing system 110 (the "wireless information apparatus") is a distinct device from expansion module 120 (the "wireless output controller device"), and emphasizes that the two devices communicate wirelessly. *See* Pet. 58–61.

In response, Flexiworld disputes that Acharya's expansion module 110 is a "distinct device" from handheld computing system 110. Prelim. Resp. 26.[13] According to Flexiworld, "the expansion module merely plugs into an expansion slot in the handheld computing system, draws power from the handheld computing device, and is designed to add functionality to the handheld computing system (not to function as a distinct device)." *Id.* at 26–27 (citing Ex. 1007 ¶¶ 13, 15, 17, 19, 57).

Based on the preliminary record, we disagree. Although Acharya describes device 120 as an "expansion module" that, in some embodiments, would be directly plugged into the handheld device, Figure 6 depicts an embodiment in which the two devices communicate wirelessly. *See* Ex. 1007, Fig. 1. Acharya also notes that in general, a Bluetooth connection would allow devices to transfer data "within a range of 10 meters and up to

[13] Neither party proposes an explicit construction for the term *distinct device* or points to intrinsic or extrinsic evidence as to its meaning in the context of the '257 patent. We invite the parties to present additional evidence about this at trial.

100 meters with a power boost." *Id.* ¶ 108. We also note that in Figure 6, Expansion module 120 is depicted with its own power inlet 135, memory 121, control software 122, and microcontroller 125. *See id.* ¶ 111, Fig. 1. Considering these independent features of expansion module 120, the evidence suggests, at this stage, that a person of ordinary skill in the art would have considered it to be a distinct device from handheld computing system 110.

4. Limitation 8

Unified relies on the combination of Acharya and Griffiths for teaching limitation 8. Pet. 69–72. In particular, Unified contends that Griffiths discloses implementing a security or authentication procedure before establishing a wireless connection, and that Acharya specifically discloses using an IEEE 802.11 protocol for wirelessly transferring data between the two devices. Pet. 69–71 (citing Ex. 1007 ¶¶ 17, 41, 56, 68, 72, 106–109, claims 11, 22, Fig. 6; Ex. 1003 ¶¶ 139–149).

According to Unified, a person of ordinary skill in the art would have had reason to incorporate the teachings of Griffiths into Acharya's system because Acharya "does not provide details about how the information transmitted via the wireless connections would be protected, even though a [person of ordinary skill in the art] would have known that such information should be protected via authentication or security procedures." Pet. 66 (citing Ex. 1003 ¶ 139). Thus, an ordinarily skilled artisan "would have been motivated to look to references that teach wireless communication systems that provide authentication procedures," particularly that of Griffiths, which

"works for both Bluetooth and other types of short-range and LAN networks." Pet. 67 (citing Ex. 1008, 2:31–43; Ex. 1003 ¶ 141).[14]

In response, Flexiworld argues that "Griffiths says nothing about the use of 802.11, either generally or in relation to its Bluetooth authentication procedure," and Unified "does not explain how the implementation of a Bluetooth authentication procedure can be used as part of establishing an 802.11 wireless LAN connection." Prelim. Resp. 28; *see also id.* at 30–31.

Based on the preliminary record, we disagree. Unified relies on Acharya, not Griffiths, to teach the use of IEEE 802.11. *See* Pet. 69–70. Moreover, Griffiths teaches that "[t]he secondary communications link may be any alternative link such as . . . a local area network." Ex. 1008, 2:37–38. We credit Dr. Freedman's testimony that as of the date of the claimed invention, IEEE 802.11 was a well-known standard for wireless LANs. Ex. 1003 ¶¶ 73, 89 (citing Ex. 1012, 378). We also credit Dr. Freedman's testimony that at the time of the claimed invention, "it was well-known to use security procedures before establishing a Bluetooth connection or a WiFi connection under IEEE 802.11." *Id.* ¶ 90 (citing Ex. 1008, 1:11–17, 1:26–30; Ex. 1013, 39:24–36). The preliminary evidence suggests that the teachings in Griffiths about authenticating a Bluetooth connection before establishing a secondary connection would apply equally well to any well-known

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[14] Unified provides an alternative *KSR*-based rationale for combining Acharya with Griffiths "because the combination merely uses a known technique to improve similar devices in the same way." Pet. 68 (citing *KSR*, 550 U.S. at 401). Because we find Unified's primary rationale sufficiently persuasive at this stage, we need not address this alternative rationale, or Flexiworld's arguments in response (Prelim. Resp. 31–32).

secondary connection such as a WiFi connection under IEEE 802.11. Thus, at this stage, Unified has sufficiently shown that limitation 8 would have been within the ordinary skill in the art based on the teachings of Acharya and Griffiths, in light of the background knowledge in the art.

Flexiworld also argues that "there is no reason a person of ordinary skill in the art would have been motivated to combine Acharya and Griffiths in the manner [Unified] alleges." Prelim. Resp. 29.

First, Flexiworld argues that "Bluetooth and 802.11 are independent wireless communication standards, and Petitioner provides no explanation as to why a person of ordinary skill in the art would have been motivated to include an authentication procedure from one protocol in a system that implements the other protocol." Prelim. Resp. 29.

Based on the preliminary record, we disagree. Unified relies on Griffiths, in part, for teaching the use of a Bluetooth connection to authenticate two devices and then use "an alternative communications link" to transmit the data. Pet. 48–49 (citing Ex. 1008, code (57)); *see also* Ex. 1008, 2:37–38 (teaching that "[t]he secondary communications link may be any alternative link"). Thus, Unified provides a sufficient rationale for why a person of ordinary skill in the art would have used Bluetooth for authentication and then IEEE 801.11 for transmitting content.

Second, Flexiworld argues that Unified "has failed to identify any reason why a person of ordinary skill would have been motivated to modify Acharya to implement a security or authentication procedure" which, according to Flexiworld, "are unnecessary in Acharya's system" where expansion module 120 is physically plugged into handheld computing

system 110. Prelim. Resp. 29–30 (citing Ex. 1007 ¶¶ 15, 19; Ex. 1008, 2:3–51).

At this stage, we disagree. As we discuss above in the context of limitation 5, Acharya discloses an embodiment, shown in Figure 6, in which handheld computing system 110 communicates with expansion module 120 wirelessly. *See supra* Section V.D.3. We credit Dr. Freedman's as-yet uncontested testimony that a person of ordinary skill in the art "would have understood that a user would want to make sure their personal information was protected when transmitting it wirelessly to the expansion module." Ex. 1003 ¶ 139.

Next, Flexiworld argues that Unified's alleged motivation for combining Acharya and Griffiths is broad and conclusory to the extent that, based on Unified's logic, a person of ordinary skill in the art "would have been motivated to include any portion of any 802.11 standard, whether mandatory or optional, whether suitable for a particular device or its resource constraints or not, and whether or not such a feature had any practical use in Acharya's system." Prelim. Resp. 31.

At this stage, we disagree. As we discuss above, we preliminarily credit Dr. Freedman's testimony that that at the time of the claimed invention, the IEEE 802.11 protocol was well-known in the art. Ex. 1003 ¶¶ 73, 89 (citing Ex. 1012, 378). The evidence of record suggests that it would have been within the ordinary skill in the art to adapt parts of the IEEE 802.11 standard to any particular device or resource constraints.

Finally, Flexiworld argues that Unified has provided only a conclusory argument that a person of ordinary skill in the art would have had a reasonable expectation of success in combining the two references. Prelim.

Resp. 32 (citing Pet. 69). Unified's argument is that a person of ordinary skill would have expected to be successful in modifying Acharya to incorporate Griffiths's teachings because Griffiths teaches using "similar wireless connections." Pet. 69 (citing Ex. 1003 ¶ 145).

At this early stage, we find Unified's argument as to whether there would have been a reasonable expectation of success to be sufficient in light of the evidence that Bluetooth and IEEE 802.11 protocols were well-known in the art, and both Acharya and Griffiths involve general-purpose hardware capable of transmitting and receiving wireless data. *See* Ex. 1007, Fig. 6; Ex. 1008, 3:9–33, Figs. 1, 2.

5. Preliminary Conclusion as to the Acharya–Griffiths Combination

Apart from the arguments discussed above as to limitations 5 and 8 and Unified's proposed motivation to combine Acharya and Griffiths, Flexiworld does not otherwise specifically contest Unified's arguments at this preliminary stage. *See* Prelim. Resp. 23–32; Pet. 44–80. We find Unified's other arguments sufficiently persuasive at this stage, and determine that Unified is reasonably likely to prevail in showing that claims 27 and 28 would have been obvious over Acharya in view of Griffiths.

VI. CONCLUSION

For the reasons above, Unified has shown that there is a reasonable likelihood it would prevail with respect to at least one of the claims challenged in the Petition. Thus, we institute trial on all asserted grounds and all challenged claims.

VII. ORDER

It is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 27 and 28 of the '257 patent is instituted with respect to all the grounds set forth in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, *inter partes* review of the '257 patent commences on the entry date of this Order, and the Board hereby gives notice of the institution of a trial.

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