

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

HEADWATER RESEARCH LLC,  
Patent Owner.

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IPR2024-01051  
Patent 8,639,811 B2

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Before HYUN J. JUNG, SCOTT B. HOWARD, and  
STEPHEN E. BELISLE, *Administrative Patent Judges*.

BELISLE, *Administrative Patent Judge*.

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

## I. INTRODUCTION

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of claims 1–30 of U.S. Patent No. 8,639,811 B2 (Ex. 1001, “the ’811 patent”). Headwater Research LLC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”); Paper 4. Patent Owner also disclaimed claims 1–3 and 5–30 of the ’811 patent, leaving only dependent claim 4 (“Challenged Claim”) at issue in this case. Ex. 3001 (Disclaimer, dated Oct. 9, 2024); Prelim. Resp. 1; 37 C.F.R. § 42.107(e) (2023) (“No *inter partes* review will be instituted based on disclaimed claims.”). With our authorization, Petitioner and Patent Owner filed a Pre-Institution Reply and Pre-Institution Sur-reply, respectively, to the Preliminary Response concerning Petitioner’s challenge to dependent claim 4. Papers 7 (“Prelim. Reply”), 8 (“Prelim. Sur-reply”).

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314(b) (2024); 37 C.F.R. § 42.4(a) (2023). We may not institute an *inter partes* review “unless . . . 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). The “reasonable likelihood” standard is “a higher standard than mere notice pleading” but “lower than the ‘preponderance’ standard to prevail in a final written decision.” *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 13 (PTAB Dec. 20, 2019) (precedential). When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim. 37 C.F.R. § 42.108(a).

Applying those standards, and upon consideration of the information presented in the Petition, Preliminary Response, and supplemental briefing, we determine that Petitioner has demonstrated a reasonable likelihood of success in proving that the only remaining claim in the '811 patent, namely dependent claim 4, is unpatentable. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Accordingly, we institute an *inter partes* review as to the Challenged Claim of the '811 patent on all relevant grounds raised in the Petition (i.e., Ground “1C” (claim 4) which includes Ground “1A” (claim 1)).

## II. BACKGROUND

### A. *Real Parties in Interest*

Petitioner identifies Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. as real parties in interest. Pet. 81. Patent Owner identifies itself as a real party in interest. Paper 4, 1 (Patent Owner’s Mandatory Notices).

### B. *Related Matter*

According to the parties, the '811 patent has been asserted in *Headwater Research LLC v. Samsung Electronics Co., Ltd.*, 2-23-cv-00641 (E.D. Tex.), filed December 29, 2023. Pet. 82; Paper 4, 1.

### C. *The '811 Patent*

The '811 patent, which spans 166 columns and 106 sheets of figures, is titled “Automated Device Provisioning and Activation,” and issued on January 28, 2014, from U.S. Application No. 13/742,312, filed January 15, 2013. Ex. 1001, codes (10), (21), (22), (45), (54). The '811 patent claims priority through one continuation application to four U.S. provisional

applications, the earliest of which was filed January 28, 2009. Ex. 1001, codes (60), (63).

The '811 patent summarizes itself as follows:

A wireless device obtains a user input through a user interface of the wireless device. Based on the user input, the wireless device determines at least an aspect of a control policy associated with a first application on the wireless device and applies the control policy. The control policy at least assists in controlling access to a wireless network by the first application and enables a control of access to the first wireless network by the first application that differs from a control of access to the first wireless network by a second application on the wireless device.

Ex. 1001, code (57); *see* 37 C.F.R. § 1.72 (“The purpose of the abstract is to enable the Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure.”).

*D. Illustrative Claim*

Given Patent Owner’s disclaimer of claim 1–3 and 5–30 (Ex. 3001), the '811 patent now includes only one claim, namely dependent claim 4. Claim 4, along with independent claim 1 from which it depends, are reproduced below with labels, such as “[1.1],” added to limitations in the same manner as used by the parties.

1. [1.1] A wireless device, comprising:
  - [1.2] one or more modems for enabling the wireless device to communicate over at least a first wireless network;
  - [1.3] a user interface;
  - [1.4] memory configured to store a control policy associated with a first application on the wireless device, the first application at least enabling the wireless device to access at least a first data service over the first wireless network; and

[1.5] one or more processors configured to execute one or more machine-executable instructions that, when executed by the one or more processors, cause the one or more processors to:

[1.6] assist in obtaining a user input through the user interface,

[1.7a] determine at least an aspect of the control policy based on the user input, [1.7b] the at least an aspect of the control policy for at least assisting in restricting or preventing a first access to the first wireless network by the first application when the first application is executing, [1.7c] the at least an aspect of the control policy enabling a first control of the first access to the first wireless network by the first application when the first application is executing that differs from a second control of a second access to the first wireless network by a second application on the wireless device, and

[1.8] apply the control policy, thereby at least assisting in restricting or preventing the first access to the first wireless network by the first application when the first application is executing.

4. The wireless device recited in claim 1, wherein restricting or preventing the first access to the first wireless network by the first application comprises preventing communication associated with the first application over the first wireless network when the first application runs as a background process.

Ex. 1001, 163:39–67, 164:11–16.

*E. Evidence of Record*

Petitioner relies on the following patent and published patent application evidence.

| Name  | Patent Document                                                            | Exhibit |
|-------|----------------------------------------------------------------------------|---------|
| Rao   | U.S. Patent Appl. Pub. No. 2006/0039354 A1,<br>published February 23, 2006 | 1005    |
| Jones | U.S. Patent No. 8,285,850 B1,                                              | 1006    |

|  |                                                 |  |
|--|-------------------------------------------------|--|
|  | issued October 9, 2012 (filed January 19, 2006) |  |
|--|-------------------------------------------------|--|

Pet. 1–2.

Petitioner also relies upon the Declaration of Patrick McDaniel, Ph.D. (Ex. 1003).

Patent Owner relies upon the Declaration of Mr. Erik de la Iglesia (Ex. 2001).

*F. Asserted Challenges to Patentability*

Petitioner challenges the patentability of the Challenged Claim (dependent claim 4) on the following basis.<sup>1</sup> Pet. 1–2.

| Claims Challenged | 35 U.S.C. §      | Reference(s)/Basis |
|-------------------|------------------|--------------------|
| 4                 | 103 <sup>2</sup> | Rao, Jones         |

### III. PATENTABILITY

*A. Applicable Law*

Petitioner challenges the patentability of claim 4 of the '811 patent on the ground that the claim would have been obvious under 35 U.S.C. § 103 in view of the combination of Rao and Jones. “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.*,

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<sup>1</sup> The Petition presents several other grounds of unpatentability, but all of them are directed to claims that Patent Owner has disclaimed. *See* Pet. 1–2; Ex. 3001.

<sup>2</sup> The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Because the '811 patent was filed before March 16, 2013, the effective date of the relevant amendment, the pre-AIA version of § 103 applies. *See* Ex. 1001, code (22).

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”)) (emphasis added). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

A claim is unpatentable under 35 U.S.C. § 103 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.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when of record, objective evidence of obviousness or non-obviousness, i.e., secondary considerations. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966). Secondary considerations may include the following: “commercial success, long felt but unsolved needs, failure of others, etc.”<sup>3</sup> *Id.* The totality of the evidence submitted may show that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the

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<sup>3</sup> At this stage of the proceeding, Patent Owner has not presented objective evidence of non-obviousness.

known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

The Supreme Court has made clear that we apply “an expansive and flexible approach” to the question of obviousness. *Id.* at 415. Whether a patent claiming a combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To reach this conclusion, however, requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention. *Id.* “To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

We analyze the challenges presented in the Petition in accordance with the above-stated principles.

*B. Level of Ordinary Skill in the Art*

Petitioner does not allege any particular level of ordinary skill in the art in its Petition, but Petitioner’s expert, Dr. McDaniel, testifies that a person of ordinary skill in the art, at the time of the invention of the ’811 patent, “would have been someone with (1) at least a bachelor’s degree

in computer science, computer engineering, electrical engineering, or a related field, and (2) at least two years of industry experience in wireless communications security,” and that “[a]dditional advanced education could compensate for a deficiency in work experience, and *vice-versa*.” Ex. 1003 ¶ 24.

Patent Owner does not present an alternative definition at this stage of the proceeding. *See* Prelim. Resp. 2–3 (“For purposes of this Preliminary Response, Patent Owner does not challenge that definition.”).

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). The level of ordinary skill in the art also may be reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

Neither party argues, at least at this stage of the proceeding, that the outcome of this case would differ based on our adoption of any particular definition of the level of ordinary skill in the art. Considering the subject matter of the ’811 patent, the background technical field, the prior art, and Petitioner’s expert’s proposed and unopposed definition of the skilled artisan (Ex. 1003 ¶ 24), we apply the level of skill set forth above.

### *C. Claim Construction*

We construe claims “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), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in

the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b); *see also Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

In this context, claim terms “are generally given their ordinary and customary meaning” as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *see CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (There is “a ‘heavy presumption’ that a claim term carries its ordinary and customary meaning.”). “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317.

Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that “we 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))).

Petitioner submits “[n]o formal claim constructions are necessary” (Pet. 3), and “Patent Owner agrees” (Prelim. Resp. 5–6). In determining that Petitioner has demonstrated a reasonable likelihood of establishing

unpatentability of at least one challenged claim (namely dependent claim 4 in this case), we need not and do not construe expressly any claim terms.

*D. Alleged Obviousness of Claim 4 over Rao and Jones*

Petitioner contends claim 4 would have been unpatentable under 35 U.S.C. § 103 as obvious over the combination of Rao and Jones. Pet. 4–21, 31–39; Prelim. Reply 1–5. Patent Owner opposes Petitioner’s contentions. Prelim. Resp. 6–21; Prelim. Sur-reply 1–5. Based on our review of the record before us, we determine that Petitioner has established a reasonable likelihood that it would prevail in showing that claim 4 would have been unpatentable under 35 U.S.C. § 103 as obvious over the combination of Rao and Jones, as discussed below. We turn first to an overview of Rao and Jones.

*1. Overview of Rao (Ex. 1005)*

Rao generally is directed to “optimizing peer-to-peer network communications, and in particular, to techniques for application-aware prioritizations of network communications on a client.” Ex. 1005 ¶ 2.

Rao identifies a problem of processing network communications in the order the communications are generated by client applications of a user’s device. Ex. 1005 ¶ 3. For example, Rao explains that “although an application is running in the foreground and currently in active use by the user, a network packet generated or received for an application running in the background may be processed ahead of a network packet generated or received for the application running in the foreground.” *Id.* Rao states that “[i]t is desirable to provide application-aware, client-specific prioritization of packet traffic.” *Id.*

Rao's Figure 1C is reproduced below.

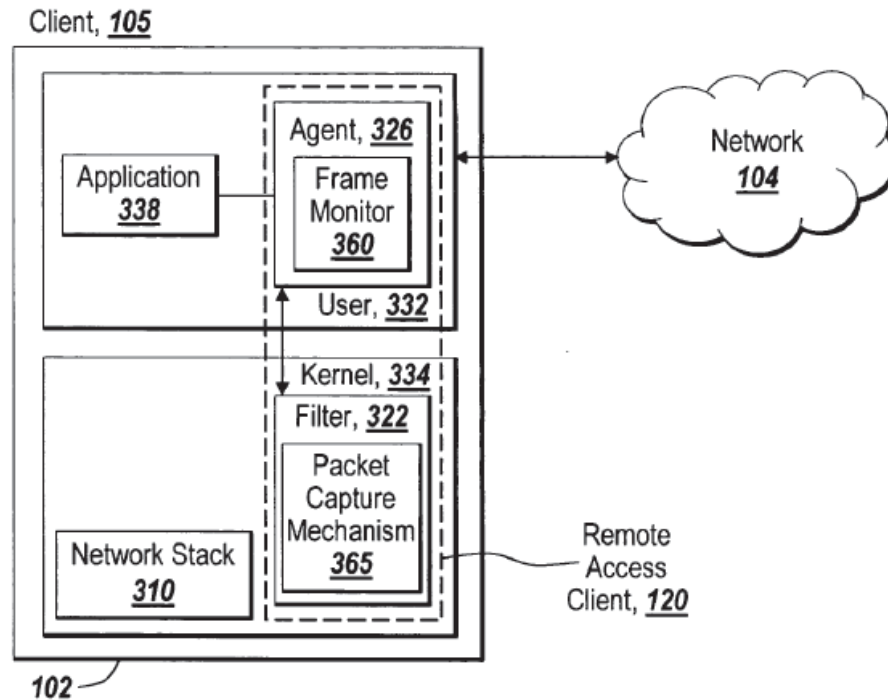


Figure 1C depicts a block diagram of a remote access client for network communications.

Ex. 1005 ¶ 62, Fig. 1C. Figure 1C shows computing device 102 operating as client 105 via network 104 and including user space 332 and kernel space 334. *Id.* ¶ 99. User space 332 includes application 338, agent 326, and frame monitor 360 (of the agent 326) having logic that applies policies to received network packets. *Id.* ¶¶ 99, 108. Kernel space 334 includes network stack 310, filter 322 that determines action taken upon packets, and packet capture mechanism (PCM) 365 (of filter 322) that intercepts network packets. *Id.* ¶¶ 99–104, 180.

Agent 326 and filter 322 form the remote access client (RAC) 120.

Ex. 1005 ¶ 99. Agent 326 provides RAC 120 a filtering table that PCM 365 of RAC 120 uses to selectively intercept/forward outbound network packets to frame monitor 360 of agent 326. *Id.* ¶ 104.

Rao's Figure 5A is reproduced below.

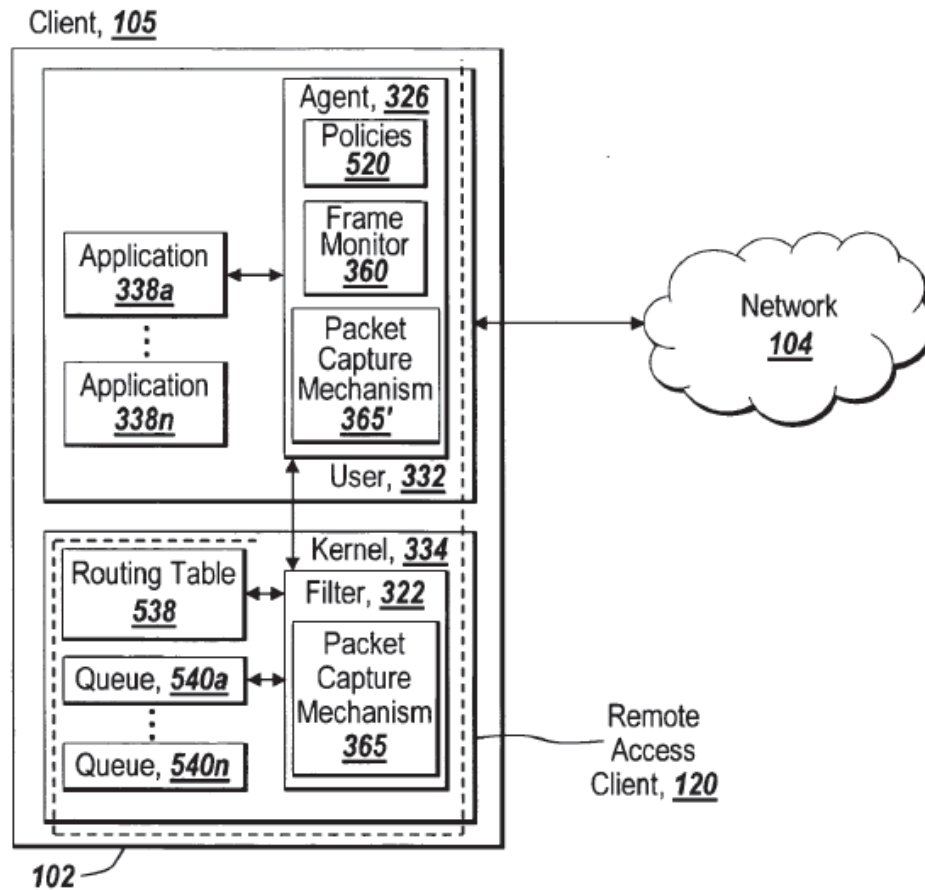


Figure 5A depicts a block diagram of a client environment for providing client-side application-aware prioritization techniques.

Ex. 1005 ¶ 70, Fig. 5A. Figure 5A shows client computing device 102, 105 similar, but not identical to, the one shown in Figure 1A. *Compare* Fig. 5A, *with* Fig. 1A.

Unlike in the Figure 1A embodiment, RAC 120 of the kernel space 334 includes queues 540a–540n that queue and prioritize network packets intercepted by PCM 365. Ex. 1005 ¶ 180. Queues 540a–540n are associated with respective applications 338a–338n of client 105 and

organized by levels of priority, e.g., high, medium, low. *Id.* Routing table 538 dictates how agent 326 routes the network packets. *Id.* ¶ 181.

Further, unlike in the Figure 1A embodiment, RAC 120 of user space 332 includes policies 520 specifying client-side prioritizations of network packets generated by the applications 338a–338n. Ex. 1005 ¶ 182. For example, the policies may prioritize, based on the respective communication protocols of applications 338a–338n, the payload sizes of the network packets, and/or whether a given application is running in the foreground or background of client 105. *Id.*

Rao's Figure 5B is reproduced below.

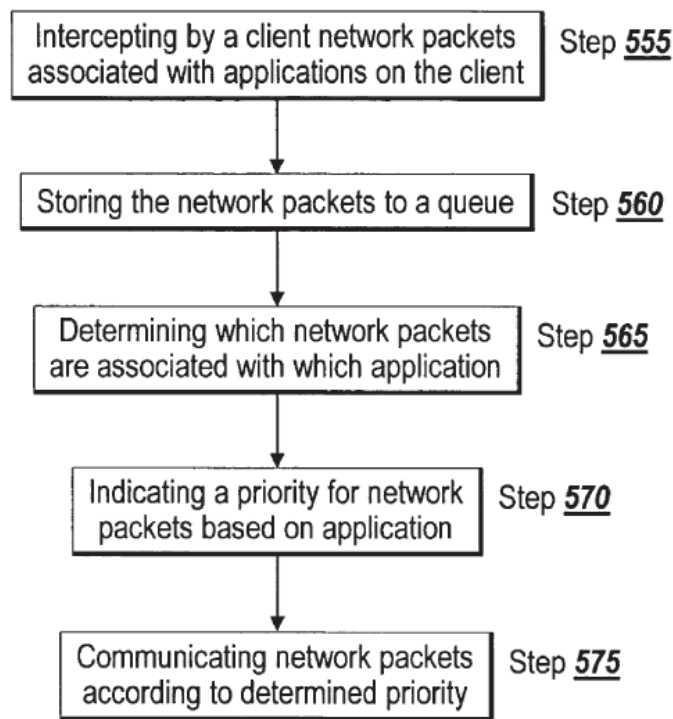


Figure 5B depicts a flow diagram of the steps performed to provide client-side application-aware prioritization.

Ex. 1005 ¶ 71, Fig. 5B. Figure 5B illustrates client-side application-aware prioritization of the Figure 1A and Figure 5A embodiments. *Id.* ¶ 184.

Step 555 intercepts a network packet generated by one of applications 338a–338n. *Id.* Step 560 stores the intercepted network packet to one of queues 540a–540n. *Id.* Step 565 determines a priority of the intercepted, queued network packet based on the priority for the respective one of applications 338a–338n. *Id.* Steps 570 and 575 respectively indicate the determined priority for the network packet and accordingly communicate the network packet. *Id.*

We further discuss below the disclosures of Rao in connection with the parties’ arguments.

## 2. *Overview of Jones (Ex. 1006)*

Jones generally is directed to “protecting data within computer networks.” Ex. 1006, 1:8–9. In particular, Jones discloses “[a] system and method for managing data transfers between client computers and a computer network,” where “[e]ach client comprises a data transfer controller and at least two data transfer rules.” *Id.* at code (57).

Jones explains that “it has become common for client computers to be dynamically connected to the enterprise network through a variety of connection types,” and “the increasing use of mobile devices such as laptop computers has meant that the method of connection to the enterprise network may change frequently as the mobile user travels from place to place.” Ex. 1006, 1:11–17. “[E]ach mobile computer may connect to a network via modem, wireless local area network (LAN), direct wired LAN, wireless connection through a wide area network (WAN) or direct cable through a WAN, among other methods,” where “the capabilities of each connection vary from one type to another.” *Id.* at 1:17–25; *see id.* at 3:14–36.

Jones's Figure 1 is reproduced below.

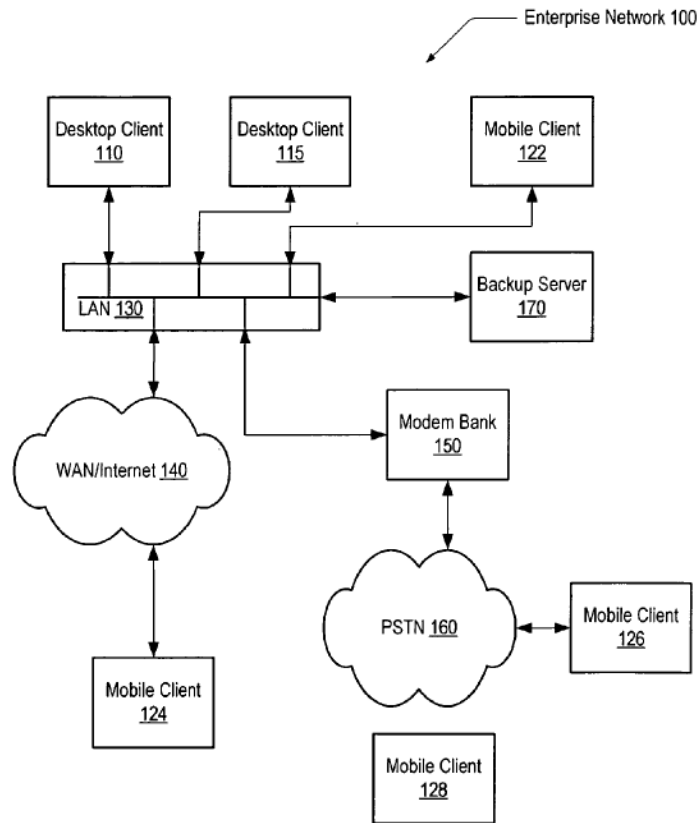


FIG. 1

Figure 1 depicts an embodiment of enterprise network 100.

Ex. 1006, 3:8–9, Fig. 1. As shown in Figure 1, enterprise network 100 includes desktop clients 110 and 115 and mobile clients 122, 124, 126, and 128. *Id.* at 3:9–14. Network 100 includes local area network (LAN) 130 to which are connected modem bank 150 and backup server 170. *Id.* at 3:15–17. LAN 130 is connected to wide area network (WAN) or Internet 140 and/or to public switched telephone network (PSTN) 160 via modem bank 150. *Id.* at 3:17–20.

Within enterprise network 100, it may be desired to protect data associated with any of clients 122, 124, 126, and 128. . . . In operation, data protection software located on each of clients 122, 124, 126, and 128 *may execute in the background* to perform data backups. Backup frequency and storage location may depend on a variety of factors including the urgency of data protection, availability of media storage space, network connection state, and enterprise policies. For example, in one embodiment, *a mobile client such as client 128 may take advantage of local backups when it is not connected to enterprise network 100*. Subsequently, if mobile client 128 connects to network 100, a backup of data to data server 170 may be performed.

Ex. 1006, 3:45–55 (emphases added).

Jones discloses that “[a] variety of rules may be applied to data transfers depending on the desired functionality, type of connection, connection bandwidth, user priorities, etc.” Ex. 1006, 5:13–15.

For instance[,] a first rule may prohibit data transfers over a modem connection. In the case of data backup, this rule may be further interpreted *to prohibit copying files to a remote network share over a modem connection, while allowing local backup copying to continue*. If the client connection changes to a non-modem connection, the modem policy rule prohibiting data transfers may no longer apply and remote copying may resume.

Ex. 1006, 5:25–32.

We further discuss below the disclosures of Jones in connection with the parties’ arguments.

### 3. *Dependent Claim 4*

Claim 4 further defines the wireless device of independent claim 1 to require, “wherein restricting or preventing the first access to the first wireless network by the first application comprises *preventing communication associated with the first application* over the first wireless

network *when the first application runs as a background process*. Ex. 1001, 164:11–16 (emphases added).

The parties dispute whether the combination of Rao and Jones teaches or at least fairly suggests to the skilled artisan two features of dependent claim 4: (1) preventing communication associated with the first application (Pet. 38–39; Prelim. Resp. 6–9; Prelim. Reply 3–5; Prelim. Sur-reply 2–5); and (2) doing so when the first application runs as a background process (Pet. 38–39; Prelim. Resp. 9–11; Prelim. Reply 1–3; Prelim. Sur-reply 1–2). We address these disputes in reverse order below.

a) *Preventing Wireless Network Communication  
“When the First Application Runs as a Background  
Process”*

Petitioner argues the combination of Rao and Jones teaches evaluating policies relating to factors such as “whether an application is running in the foreground or the background.” Pet. 38 (quoting Ex. 1005 (Rao) ¶ 182; citing, *inter alia*, Ex. 1003 ¶ 315). Petitioner argues “[t]he first application can be a noninteractive application such as video streaming (Rao) or backup (Jones),” and in this context, such a policy evaluation “first determines if the [data] transfer is allowed or prohibited.” Pet. 38–39 (citing, *inter alia*, Ex. 1005 ¶¶ 88, 179; Ex. 1006, 5:13–32; Ex. 1003 ¶ 315); *see* Ex. 1006, 5:25–29 (“[A] first rule may *prohibit data transfers* over a modem connection,” and “[i]n the case of data backup, this rule may be further interpreted *to prohibit copying files to a remote network share over a modem connection, while allowing local backup copying to continue*.” (emphases added)) (cited at Pet. 38). As such, Petitioner contends Rao and Jones teach “prevent[ing] network access when the application runs as a background process.” Pet. 39. Petitioner argues the skilled artisan “would have

recognized that preventing network access for backup processes (in the background) leaves additional bandwidth for other applications, avoiding cases where background packets are processed in lieu of or ‘processed ahead of the real-time network packets,’ as described in Rao.” Pet. 39 (citing Ex. 1005 ¶ 3; Ex. 1003 ¶¶ 316–317).

Patent Owner responds that the Petition allegedly “fails to even consider the requirement that the ‘communication associated with the first application’ must be prevented ‘*when the first application runs* as a background process.’” Prelim. Resp. 9–10. Patent Owner alleges, in sum, “[n]either the Petition nor the corresponding expert declaration provides any evidence or reasoning that the backup application would be running or executing when it is not supposed to be communicating over the network.” *Id.* at 10; *see id.* at 9–11.

Petitioner replies that Patent Owner’s arguments regarding the subject feature of claim 4 are simply “wrong”:

Jones itself, however, contradicts [Patent Owner’s] argument, stating that “a first rule may prohibit data transfers over a modem connection,” and, “[i]n the case of data backup, this rule may be further interpreted to prohibit copying files to a remote network share over a modem connection, *while allowing local backup copying to continue*.” [Ex. 1006], 5:25-29 (emphasis added); *see* Pet., 38 (citing [Ex. 1006], 5:13-32). That is, Jones teaches that, even if a rule prevents data backup over a modem connection, the application nonetheless continues to run in the background as it “allow[s] local backup copying to continue.” *Id.* Moreover, minimally, a background backup process periodically executes to determine whether a backup is actually needed (e.g., files have changed). Given Jones’s clarity that “data protection software ... may execute in the background to perform data backups,” (Pet., 39 (citing [Ex. 1006], 3:45-51)), no further explanation is needed to inform [the skilled artisan].

Prelim. Reply 1–2.

Patent Owner subsequently conceded and no longer disputes that Jones teaches the “when the first application runs as a background process” feature of claim 4. Prelim. Sur-reply 2. Contrary to Patent Owner’s posturing that Petitioner allegedly introduced a new “theory” or argument in its Preliminary Reply regarding this feature (Prelim. Sur-reply 1–2), we find that Petitioner’s arguments and evidence in its Preliminary Reply merely expand upon (or perhaps clarify) relevant arguments and evidence in its Petition in legitimate response to arguments made by Patent Owner in its Preliminary Response. *See, e.g.*, Pet. 38 (citing Ex. 1006, 5:13–32); Prelim. Reply 2 (quoting Ex. 1006, 5:25–29); Prelim. Resp. 9–11 (arguing Petitioner provided no evidence against the subject feature); *Everstar Merch. Co. v. Willis Elec. Co.*, No. 2021-1882, 2022 WL 1089909, at \*4 (Fed. Cir. Apr. 12, 2022) (“Any ambiguity as to whether a reply constitutes a new argument is eliminated when the reply is a legitimate reply to arguments introduced in a patent owner’s response or the Board’s institution determination.”).

Based on the record before us, and as further discussed below in Section III.D.3.b, we find Petitioner sufficiently shows that the combination of Rao and Jones teaches the subject feature of claim 4, namely preventing wireless network communication “when the first application runs as a background process.”

*b) “Preventing Communication Associated with the First Application over the First Wireless Network”*

In its Petition, Petitioner argues the combination of Rao and Jones teaches the dependent claim 4 feature of “preventing communication

associated with the first application over the first wireless network” using the same analysis already discussed above in Section III.D.3.a (discussing claim 4’s “when” feature). *See* Pet. 38–39.

Patent Owner argues, in sum, that “configuring a backup process to execute only under certain conditions as taught by Jones does not constitute ‘preventing communication associated with the first application,’” because according to Patent Owner “there is no indication that there *would* be any communication (such as, e.g., a data packet) to even arguably prevent other than when the backup process is configured to execute.” Prelim. Resp. 8–9; *see id.* at 9 (“In other words, at times when the data backup process is not configured to execute, there would simply be no ‘communication associated with’ the backup process to prevent, nor would there be any attempted ‘access to the first wireless network’ as recited by claims 1 and 4 that could be restricted or prevented.”).

Petitioner replies that Patent Owner’s arguments here rely upon an “overly narrow” interpretation of “preventing communication.” Prelim. Reply 3. More specifically, Petitioner observes that such arguments “impl[y] that ‘preventing communication’ *requires* that *data packets must first be generated and then blocked*.” *Id.* at 4 (emphases added). Petitioner contends the ’811 patent “is not limited to [Patent Owner’s] narrow interpretation of ‘preventing communication’ as ‘blocking packets that were previously generated by an application,’” and that “each cited example from the ’811 patent relates to a nonlimiting *example* of preventing communication rather than a strict requirement that preventing communication necessitates blocking data packets generated by an application.” *Id.* at 4–5. Petitioner also argues, and we agree, that “claim 4

only requires ‘preventing communication associated with the first application over the first wireless network’ *and says nothing of blocking data packets generated by the application.*” *Id.* at 5 (“[T]he Board should reject [Patent Owner’s] overly narrow interpretation that attempts to rewrite ‘preventing communication’ as ‘blocking generated packets.’”) (emphasis added). Petitioner contends that “Jones’ teaching of prohibiting a network backup service usage activity discloses claim 4’s ‘preventing communication.’” *Id.*

Patent Owner responds that “a ‘communication associated with’ a backup application occurs ‘***when the backup application is actually attempting to send or receive data.***” Prelim. Sur-reply 3; *see id.* at 4 (“‘[I]n order to prevent a communication, there must be a communication to prevent,’ such as ‘when the backup application is actually attempting to send or receive data.’” (quoting Ex. 2001 ¶ 39)). Patent Owner argues, in sum, that “an application’s programming that simply does not issue communications under certain conditions would not be ‘preventing communication associated with the first application’ under those conditions,” but rather, “there would simply be no ‘communication associated with’ that application to prevent, because the application is not making any attempt to communicate.” *Id.* at 4–5. We find Patent Owner’s arguments unavailing, at least at this stage of the proceeding.

Initially, we note that neither party proffered an explicit claim construction for the limitation of “preventing communication associated with the first application over the first wireless network” in its initial or supplemental briefing in this matter. *See* Pet. 3; Prelim. Resp. 5–6. We understand Petitioner to argue that this limitation simply means what it says,

namely, prevent or prohibit communication associated with the first application over the first wireless network. However, Patent Owner appears to urge us, at least implicitly, to interpret “preventing communication” to *require* first actually “allowing” a communication and then “stopping” that communication, because otherwise allegedly there would be no “communication associated with” an application to prevent. Although the limitation of “preventing communication associated with the first application over the first wireless network” may *include* within its scope such a scenario (i.e., allowing then stopping communication), we find no rational or creditable basis on the record before us at this stage of the proceeding to limit the scope of the subject limitation to such a scenario. To the extent that the parties continue to dispute the meaning of the subject limitation during trial, the parties shall proffer formal claim constructions with cited support for this limitation in their allotted briefs.

Regardless, we return to at least a portion of Jones’s explicit disclosure concerning prohibiting remote network communications:

For instance[,] a first rule may prohibit data transfers over a modem connection. In the case of data backup, this rule may be further interpreted *to prohibit copying files to a remote network share over a modem connection, while allowing local backup copying to continue*. If the client connection changes to a non-modem connection, the modem policy rule prohibiting data transfers may no longer apply and remote copying may resume.

Ex. 1006, 5:25–32 (emphasis added) (cited at Pet. 38). Based on the record before us, we find this disclosure (as combined with Rao) teaches or at least fairly suggests *to the skilled artisan* the dependent claim 4 feature of “preventing [or “prohibiting”] communication associated with the first application over the first wireless network” when the first application runs as

a background process. We encourage Patent Owner to meaningfully address this disclosure in Jones in its subsequent briefing during trial.

Based on the record before us, and as further discussed above in Section III.D.3.a, we find Petitioner sufficiently shows that the combination of Rao and Jones teaches the subject feature of claim 4, namely “preventing communication associated with the first application over the first wireless network.”

*c) Remaining Limitations, Reasons to Combine Teachings of Rao and Jones, and Reasonable Expectation of Success*

Apart from the arguments discussed above concerning dependent claim 4, Patent Owner does not present arguments specifically directed to the limitations recited in underlying independent claim 1 (which Patent Owner disclaimed (Ex. 3001)). *See* Prelim. Resp.; Prelim. Sur-reply. Nonetheless, the burden remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. The Petition provides a detailed assessment of these limitations, with references to disclosures in Rao and the declaration testimony of Petitioner’s expert, Dr. McDaniel. Pet. 4–21. We have reviewed Petitioner’s arguments and evidence in this regard (Pet. 4–21), and are persuaded that Petitioner sufficiently shows that Rao teaches or at least fairly suggests these remaining limitations (i.e., limitations 1.1–1.8).

Petitioner contends the skilled artisan would have had rational reasons to combine the teachings of Rao and Jones to arrive at the invention of dependent claim 4 (which includes the features of independent claim 1) and would have had a reasonable expectation of success in doing so. Pet. 32–38; *see, e.g., id.* at 35 (“[The skilled artisan] would have been motivated to

combine the teachings of Rao and Jones to operate in instances where bandwidth is limited and there is contention among applications for bandwidth.”); Ex. 1003 ¶ 138 (Dr. McDaniel testifying that combining the teachings of Rao and Jones “would have required only routine programming knowledge well within the skill of [the skilled artisan].”). Patent Owner does not dispute such reasons or expectations at this stage of the proceeding. For the reasons and evidence set forth in pages 32–38 of the Petition, we are persuaded that Petitioner’s cited evidence provides sufficient rational reasons for purposes of institution to combine Rao and Jones to arrive at the invention of claim 4, and to do so with a reasonable expectation of success.

*d) Summary*

At this stage of the proceeding and based on the record before us, we are persuaded that Petitioner’s cited evidence provides sufficient rational reasons for purposes of institution to combine Rao and Jones with a reasonable expectation of success, and sufficiently supports Petitioner’s contention that dependent claim 4 would have been unpatentable as obvious over the combination of Rao and Jones. Thus, for the foregoing reasons and those stated in Petitioner’s preliminary briefing (Pet. 4–21, 31–39; Prelim. Reply 1–5), we determine that Petitioner has established a reasonable likelihood that it would prevail in showing that claim 4 would have been unpatentable as obvious over the combination of Rao and Jones.

#### IV. CONCLUSION

Based on the evidence before us, we determine that Petitioner has established a reasonable likelihood that the only remaining claim in the ’811 patent, namely dependent claim 4, is unpatentable. Accordingly,

we institute trial on all relevant challenges in the Petition (i.e., Ground “1C” (claim 4) which includes Ground “1A” (claim 1)).

We base our factual findings and conclusions at this stage of the proceeding on the evidentiary record developed so far. This is not a final decision as to the construction of any claim term or the patentability of any claim. Any final decision shall be based on the full trial record, including any response timely filed by Patent Owner. Any arguments not raised by Patent Owner in a timely filed response may be deemed waived, even if they were presented in the Preliminary Response.

#### V. ORDER

Upon consideration of the record before us, it is:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claim 4 of U.S. Patent No. 8,639,811 B2 is instituted with respect to all relevant grounds set forth in the Petition (i.e., Ground “1C” (claim 4) which includes Ground “1A” (claim 1)); and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the ’811 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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Patent 8,639,811 B2

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