

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FREEWHEEL MEDIA, INC.,
Petitioner,

v.

INTENT IQ, LLC,
Patent Owner.

IPR2024-00422
Patent 7,861,260 B2

Before NABEEL U. KHAN, SCOTT B. HOWARD, and DAVID COTTA,
Administrative Patent Judges.

HOWARD, *Administrative Patent Judge.*

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

I. INTRODUCTION

A. *Background and Summary*

FreeWheel Media, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1, 6, 8–10, 21, 23–26, 29–34, 38–40, 42, 43, 45–53, 55, 59–61, 63–70, 76, 81, 82, 85, 87–89, 100, 102–104, 107–115, 117, 120–124, 126, 129–136, 142, 145–147, and 149–150 (“the challenged claims”) of U.S. Patent No 7,861,260 B2 (Ex. 1001, “the ’260 patent”). Intent IQ, LLC¹ (“Patent Owner”) filed a Preliminary Response (Paper 8, “Prelim. Resp.”).

We have authority, acting on the designation of the Director, to determine whether to institute an *inter partes* review under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). *Inter partes* review may not be instituted unless “the information presented in the petition filed under section 311 and any response filed under section 313 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) (2024). “When instituting *inter partes* review, the Board will authorize the review to proceed on all of

¹ Petitioner identifies AlmondNet, Inc. as the owner of the ’260 patent and that name was reflected in the Notice of Filing Date Accorded. See Pet.; Paper 7 (Notice of Filing Date Accorded). However, Intent IQ, LLC identifies itself as the actual owner of the ’260 patent. See Paper 5, 1 (Patent Owner’s Mandatory Notices). The USPTO assignment database includes an assignment that was filed transferring ownership rights from AlmondNet, Inc. to Intent IQ, LLC. Accordingly, we have modified the caption and the parties should use the caption of this document for all further submissions.

If a party contends that Intent IQ, LLC is not the proper patent owner, they must do so in a paper submitted no more than two weeks from the date this decision was mailed.

the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.108(a) (2023).

For the reasons set forth below, upon considering the briefing and the evidence of record, we determine that the information presented in the Petition establishes a reasonable likelihood that Petitioner will prevail with respect to at least one of the challenged claims. Accordingly, we institute *inter partes* review on all of the challenged claims based on all of the grounds identified in the Petition.

B. Real Parties in Interest

Petitioner identifies itself, Beeswax.io Corp., Comcast Corporation, Comcast Cable Communications, LLC, and Comcast Cable Communications Management, LLC as the real parties in interest. Pet. viii.

Patent Owner identifies Intent IQ, LLC as the real party in interest. Paper 5, 1.

C. Related Matters

Petitioner indicates that the ’260 patent was asserted against FreeWheel Media, Inc. and Beeswax.io Corp. by AlmondNet, Inc. and Intent IQ, LLC in the United States District Court for the District of Delaware in *AlmondNet, Inc v. Freewheel Media, Inc.*, No. 1:23-cv-00220-MN (D. Del.). Pet. viii.

Petitioner further indicates that, concurrently with the filing of the Petition, it submitted three other petitions for *inter partes* review of the ’260 patent: IPR2024-00422, IPR2024-00423, and IPR2024-00424. Pet. ix. Petitioner also indicates that it filed two petitions for *inter partes* review against related U.S. Patent No. 11,564,015 B2: IPR2024-00419 and IPR2024-00420. Pet. ix.

Additionally, the parties indicate the '260 patent or its related patents are or were the subject of the following proceedings:

- *AlmondNet, Inc. v. Viant Technology Inc.*, 1-23-cv-00174 (D. Del.);
- *AlmondNet, Inc. v. Samsung Electronics Co.*, 4-22-cv-07515 (N.D. Cal.);
- *AlmondNet, Inc. v. Samsung Electronics Co.*, 6-21-cv-00891 (W.D. Tex.);
- *AlmondNet, Inc. v. Meta Platforms, Inc.*, 4-22-cv-08911 (N.D. Cal.);
- *AlmondNet, Inc. v. Meta Platforms, Inc.*, 6-22-cv-01205 (W.D. Tex.);
- *AlmondNet, Inc. v. Amazon.com, Inc.*, 6-22-cv-01204 (W.D. Tex.);
- *AlmondNet, Inc. v. Microsoft Corp.*, 6-22-cv-01206 (W.D. Tex.);
- *AlmondNet, Inc. v. Oath Holdings Inc.*, 1-19-cv-00247 (D. Del.);
- *AlmondNet, Inc. v. Yahoo! Inc.*, 1-16-cv-01557 (E.D. N.Y.);
- *Roku, Inc. v. AlmondNet, Inc.*, 1-21-cv-01035 (D. Del.);
- *Meta Platforms, Inc. v. Intent IQ, LLC*, IPR2022-00773;
- *Amazon.com, Inc. v. Intent IQ, LLC*, IPR2023-00227;
- *Microsoft Corporation v. Intent IQ, LLC*, IPR2022-01420;
- *Roku, Inc. v. Intent IQ, LLC*, IPR2022-01236;
- *Yahoo! Inc. v. Intent IQ, LLC*, IPR2017-01299;
- *Roku, Inc. v. Intent IQ, LLC*, IPR2022-01315;
- *Meta Platforms, Inc. v. Intent IQ, LLC*, IPR2023-01281;
- *Samsung Electronics Co. v. AlmondNet, Inc.*, IPR2022-01505;
- *Samsung Electronics Co., v. Intent IQ, LLC*, IPR2022-01506;
- *Roku, Inc. v. Intent IQ, LLC*, IPR2022-00953;
- *Roku, Inc. v. Intent IQ, LLC*, IPR2022-00959;
- *Roku, Inc. v. Intent IQ, LLC*, IPR2022-00960; and
- *Samsung Electronics Co. v. Intent IQ, LLC*, IPR2022-01507.

Pet. x–xiii; Paper 5, 1–2.

D. The '260 Patent

The '260 patent is titled “Targeted Television Advertisements Based on Online Behavior,” and “relates to online access and targeted delivery of

advertisements.” Ex. 1001, code (54), 1:7–8. The ’260 patent describes delivering targeted television advertisements “based on observed online (i.e., Internet) behavior of a television viewer without employing personally identifiable information.” *Id.* at 1:8–11.

Figure 7 is reproduced below.

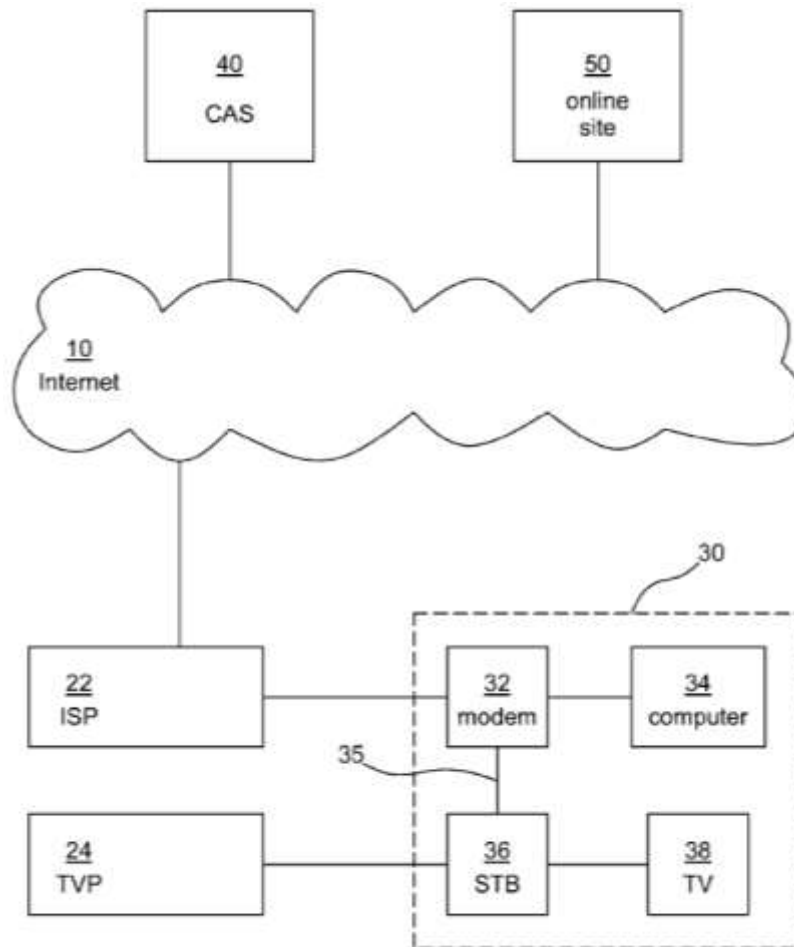


FIG. 7

Figure 7 “illustrates schematically a system for targeting television advertisements based on online behavior in which online access and television service are provided by different providers.” Ex. 1001, 8:17–20. Specifically, Figure 7 illustrates modem 32, computer 34, set-top box

(STB) 36, and television 38 associated with user 30. *Id.* at 9:16–17, 9:28–32. Internet service provider (ISP) 22 assigns a dynamic IP address to modem 32. *Id.* at 9:35–39, 13:19–21. In Figure 7, STB 36 is connected to modem 32 via connection 35 to obtain online access via the same IP address as modem 32. *Id.* at 12:54–61. “For example, STB 36 can be connected to a local area network (LAN) that shares [modem] 32 for online access. In such an arrangement, network traffic is routed to a common IP address (i.e., the IP address of modem 32) for STB 36 and other devices [e.g., computer 34] connected to the LAN.” *Id.* at 12:61–65. “The term ‘common IP address’ denotes the IP address of a modem or other online access device to which remote network traffic is routed for each of multiple devices sharing a common connection.” *Id.* at 13:3–6. “The common IP address is dynamically assigned by ISP 22 to the user’s modem 32 or other online access equipment.” *Id.* at 13:19–21. That common IP address comprises an electronic association between online access and STB IP addresses, which enables delivery of targeted television advertising to STB 36 based on online activity observed as originating from the common IP address of modem 32. *Id.* at 12:8–40, 12:54–58, 13:36–43.

E. Illustrative Claim

Claims 1, 26, 38, and 61 are independent claims and claim 1, reproduced below, is illustrative of the subject matter of the challenged claims.

1. [1pre] A method implemented using a programmed hardware computer system, the method comprising:

[1A] (a) for each of a multitude of users, with the computer system, electronically associating an online access IP address of the user and a set-top box IP address of that user based on a

common IP address, wherein network traffic is routed via the common IP address to both an online user interface device and a set-top box of that user; and

[1B] (b) using user profile information derived from online activity from a first online user interface device via a first one of the online access IP addresses of the multitude of users, with the computer system automatically causing a first television advertisement to be directed to a set-top box for presentation via that set-top box, selectively, wherein the set-top box is indicated by the set-top box IP address associated with the first online access IP address.

Ex. 1001, 23:43–60 (bracketed material reflects limitations as argued by Petitioner).

F. Prior Art and Asserted Grounds

Petitioner asserts that the challenged claims would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §²	Reference(s)/Basis
1, 8, 9, 21, 24, 26, 31, 32, 34, 38, 39, 42, 53, 55, 61, 69, 76, 87, 88, 100, 103, 117, 121, 122, 135, 142, 145–147	103(a)	Baig, ³ Costa, ⁴ Zwicky ⁵

² The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. §§ 102 and 103 that became effective on March 16, 2013. Because the ’260 patent has an application filing date of April 17, 2007, we apply the pre-AIA version of the statutory basis for unpatentability. See Ex. 1001, code (22).

³ US 2008/0113674 A1, published May 15, 2008 (Ex. 1007).

⁴ US 2006/0128364 A1, published June 15, 2006 (Ex. 1011).

⁵ Zwicky, E. D., Cooper, S., & Chapman, D. B. (2000). *Building Internet Firewalls, 2nd edition*. O’Reilly & Associates (Ex. 1012). All citations use the native pagination.

Claim(s) Challenged	35 U.S.C. §²	Reference(s)/Basis
1, 8, 9, 21, 24, 26, 31, 32, 34, 38–40, 42, 45–48, 52, 53, 55, 61, 63–65, 68, 69, 76, 87, 88, 100, 103, 107–110, 114, 115, 117, 121–122, 129–131, 134, 135, 142, 145–147	103(a)	Baig, Costa, Banga '690 ⁶
6, 8-10, 21, 23, 32, 51, 55, 59, 60, 67, 76, 81, 82, 85, 87–89, 100, 102, 113, 117, 120, 123, 124, 126, 133, 142, 145, 149, 150	103(a)	Baig, Costa, Zwicky, Howcroft ⁷
6, 8–10, 21, 23, 32, 51, 55, 59, 60, 67, 76, 81, 82, 85, 87–89, 100, 102, 113, 117, 120, 123, 124, 126, 133, 142, 145, 149, 150	103(a)	Baig, Costa, Banga '690, Howcroft
49, 50, 66, 70, 111, 112, 132, 136	103(a)	Baig, Costa, Banga '690, Smith ⁸
33	103(a)	Baig, Costa, Zwicky, Middeljans ⁹
25, 29, 33, 104	103(a)	Baig, Costa, Banga '690, Middeljans
30, 43	103(a)	Baig, Costa, Banga '690,

⁶ US 2006/0271690 A1, published Nov. 30, 2006 (Ex. 1014).

⁷ US 2008/0201731 A1, published Aug. 21, 2008 (Ex. 1016).

⁸ US 2003/0083938 A1, published May 1, 2003 (Ex. 1021).

⁹ US 2002/0124050 A1, published Sep. 5, 2002 (Ex. 1023).

Claim(s) Challenged	35 U.S.C. § ²	Reference(s)/Basis
		Middeljans, Koningstein ¹⁰
50, 70, 112, 136	103(a)	Baig, Costa, Banga '690, Banga '633 ¹¹

Petitioner also relies on the testimony of David B. Lett (Ex. 1002) and Sylvia Hall-Ellis, Ph.D. (Ex. 1059).

II. ANALYSIS

A. Legal Standards

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under 35 U.S.C. § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) if in evidence, “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the U.S. Court of Appeals for the Federal Circuit has repeatedly emphasized that “it is error to reach a conclusion of obviousness until all those factors are considered,” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016). Because Patent Owner does not address objective evidence of non-obviousness, we focus solely on the first three *Graham* factors.

¹⁰ US 2005/0096980 A1, published May 5, 2005 (Ex. 1024).

¹¹ US 2008/0263633 A1, issued Oct. 23, 2008 (Ex. 1025).

B. 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*, 383 U.S. at 17–18.

Factors pertinent to a determination of the level of ordinary skill in the art include “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696–97 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). “Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case.” *Id.*

Petitioner argues that a person having ordinary skill in the art would have had “a degree in computer or electrical engineering, computer science, or a similar discipline, and two years of experience with the design and/or implementation of network-based content delivery systems and Internet advertising.” Pet. 6 (citing Ex. 1002 ¶¶ 144–49).

Patent Owner does not address the level of ordinary skill in the art. *See Prelim. Resp.*

Because Petitioner’s proposed level of ordinary skill in the art is consistent with the field of the invention of the ’260 patent and not disputed

by Patent Owner, for purposes of this Decision, we adopt Petitioner’s formulation of the person having ordinary skill in the art.¹²

C. Claim Construction

We apply the same claim construction standard used in the federal courts, in other words, the claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), which is articulated in *Phillips*, 415 F.3d 1303. *See* 37 C.F.R. § 42.100(b). Under the *Phillips* standard, the “words of a claim ‘are generally given their ordinary and customary meaning,’” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips*, 415 F.3d at 1312–13.

Petitioner argues that it “applies the plain meaning for all claim terms” and that “[n]o express construction is necessary at this time.” Pet. 6 (citing Ex. 1002 ¶ 150).

Patent Owner does not address the meaning of any claim terms. *See* Prelim. Resp.

¹² If Patent Owner disagrees with this formulation of the level of skill in the art, it must raise that disagreement in its Response. If a different level of skill would affect the outcome in this case, the parties must brief that issue as well. The failure of Patent Owner to describe in the Response how a different level of skill in the art is determinative will be a forfeiture of that argument. If there is a dispute regarding the level of ordinary skill in the art, then the parties are also encouraged to submit evidence, other than conclusory expert testimony, that supports their position. *See* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

For the purposes of this Decision, we need not expressly construe any claim terms.¹³ See *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting 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))).

D. Discretionary Denial under 35 U.S.C. § 314(a)

Institution of an *inter partes* review is discretionary, not mandatory. See *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”).

Pursuant to the Consolidated Trial Practice Guide (see CTPG, 59–60), Petitioner filed a document which ranks the petitions in the instant case, IPR2024-00421, IPR2024-00423, and IPR2024-00424 and provides an explanation of the material differences between the petitions. See Paper 3 (Petitioner’s Petition Ranking and Explanation of Material Differences Between Petitions). Petitioner argues that its petitions challenging the ’260

¹³ If either party intends to argue a claim construction at trial, including what is the plain and ordinary meaning of a term, they should do so in a clearly designated section of their briefing. See Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 21, 2019) (“CTPG”), 46, 49 (available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>). Claim construction arguments should not be relegated to patentability arguments on the facts. Failure to argue claim construction in a clearly designated section of the briefing will result in forfeiture of all implicit claim construction arguments.

patent are meritorious and justified because the '260 patent has 152 claims. *Id.* at 1. Petitioner argues that it “was required to file two petitions, covering different claims, for each primary reference (Baig [(IPR2024-00421, -00422)] and Madhavan [(IPR2024-00423, -00424)])” in order “[t]o properly address the extraordinarily large number of claims.” *Id.* According to Petitioner, its four petitions “should more appropriately be considered two petitions, each consisting of two parts to cover the enormous number of claims.” *Id.* Petitioner argues that “at a minimum, to address all 152 claims, the Board should institute” IPR2024-00421 and IPR2024-00422 and/or IPR2024-00423 and IPR2024-00424. *Id.* Petitioner further argues that it needs all four petitions because (1) it is relying on prior art in the different pair of proceedings, (2) potential priority issues associated with the prior art, and (3) different approaches to claim construction. *Id.* at 2–5.

According to Patent Owner, the Consolidated Trial Practice Guide states that “the Board finds it unlikely that circumstances will arise where three or more petitions by a petitioner with respect to a particular patent will be appropriate” and “the Board finds it unlikely that circumstances will arise where three or more petitions by a petitioner with respect to a particular patent will be appropriate.” Prelim. Resp. 5 (emphasis omitted, citing CTPG, 59). Patent Owner also argues that because Petitioner “has not and cannot justify” its four parallel petitions, the Board should deny institution in the instant proceeding. Prelim. Resp. 4–5; *see also id.* at 6 (“Petitioner fails to justify why all four Petitions, filed on the same day and challenging the same independent claims, are all necessary and appropriate.” (emphasis omitted)). Patent Owner also argues that (1) different prior art does not justify multiple petitions, (2) because Patent Owner “expressly stipulates

that it will not ‘attempt to antedate or disqualify’ the prior art relied upon by Petitioner,” there are no potential priority issues, and (3) Petitioner is speculating as to the potential for disputes around claim construction. *Id.* at 6–7.

In deciding whether to institute *inter partes* review, we consider the guidance in the Consolidated Trial Practice Guide, which sets forth the following:

Parallel Petitions Challenging the Same Patent. Based on the Board’s experience, one petition should be sufficient to challenge the claims of a patent in most situations. Two or more petitions filed against the same patent at or about the same time (e.g., before the first preliminary response by the patent owner) may place a substantial and unnecessary burden on the Board and the patent owner and could raise fairness, timing, and efficiency concerns. *See* 35 U.S.C. § 316(b).

CTPG, 59. Nonetheless, the Consolidated Trial Practice Guide recognizes that “more than one petition may be necessary, including, for example, when the patent owner has asserted a large number of claims in litigation.” *Id.*

In light of the guidance provided by the Consolidated Trial Practice Guide, we are persuaded by Petitioner’s argument that we should consider this petition along with the petition in IPR2024-00421. Both petitions rely on the same primary references, Baig, Costa, and either Zwicky or Banga690. Because the ’260 has a large number of claims (152) spanning over 10 columns, this is one of those situations where more than one petition is necessary for Petitioner to address each of those claims.

We do not find Patent Owner’s argument regarding the number of claims asserted in the litigation to be persuasive. *See* Prelim. Resp. 7 (“Importantly, Petitioner does not allege that ‘the patent owner has asserted

a large number of claims in litigation” (quoting CPTG 59)). First, we have reviewed the complaint Patent Owner asserted against Petitioner and do not see any limits on which claims are asserted. *See* Ex. 3001. Second, Patent Owner has not identified any claims that it is not asserting. *See* Prelim. Resp. Therefore, based on the current record, Patent Owner is asserting all 152 claims in litigation. Moreover, we are not aware of any legal authority that limits *inter partes* review to only claims challenged in litigation.

Accordingly, we decline to exercise our discretion to deny institution of this petition.¹⁴

E. Denial for Lack of Particularity under 35 U.S.C. § 312(a)

“At the outset, a party must file a petition to institute review, 35 U.S.C. § 311(a), that identifies the challenged claims and the grounds for challenge with particularity, [35 U.S.C.] § 312(a)(3).” *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1351 (2018); *see also* 37 C.F.R. § 42.104(b) (specifying necessary elements of a petition). An IPR can be instituted only if there is a reasonable likelihood that the petitioner would prevail with respect to at least one of the claims challenged in the petition. 35 U.S.C. § 314(a). Even when a petitioner demonstrates a reasonable likelihood as to at least one claim, however, institution of an IPR remains discretionary. *SAS*, 138 S. Ct. at 1351 (“§ 314(a) invests the Director with discretion on the question whether to institute review.”); *Harmonic* 815 F.3d at 1367 (“First of all, the [U.S. Patent and Trademark Office] is permitted, but never compelled, to institute an IPR proceeding” (citing 35 U.S.C. § 314(a))). As

¹⁴ We will address the propriety of the other parallel petitions in their respective proceedings.

explained in the Consolidated Trial Practice Guide, “[t]he Director’s discretion is informed by 35 U.S.C. §§ 316(b) and 326(b), which require the Director to ‘consider the effect of any such regulation [under this section] on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings instituted under this chapter.’” CTPG, 56.

“Because the Board’s practice, in light of SAS, is to institute on all grounds asserted in a petition, the Board may consider whether a lack of particular[ity] as to one or more of the asserted grounds justifies denial of an entire petition.” *Adaptics Ltd. v. Perfect Co.*, IPR2018-01596, Paper 20 at 17 (PTAB March 6, 2019) (Informative). For example, in *Adaptics*, the Board found that the petition contained voluminous or excessive grounds and that “the Petition fail[ed] to specify what Petitioner regard[ed] as the difference(s) between [the references] and the challenged claims.” *Id.* at 18–20. More specifically, the Board found that “Petitioner’s ‘catch-all’ ground attempt[ed] to require Patent Owner to address whether each and every claim limitation [was] taught not only by each of [two primary references], but by each of these references in combination with one or more of the other references asserted in the proceeding.” *Id.* at 20–21. Accordingly, the Board concluded that “Petitioner’s ‘catch-all’ ground [was] not reasonably bounded in scope and unduly burdensome for both Patent Owner and the Board to address.” *Id.* at 21.

Additionally, as discussed above, our rules require that a petition includes fully developed arguments. See 37 C.F.R. § 42.22(a)(2) (the “petition . . . must include . . . [a] full statement of the reasons for the relief requested”); *DeSilva v. DiLeonardi*, 181 F.3d 865, 866–67 (7th Cir. 1999)

(“A brief must make all arguments accessible to the judges, rather than ask them to play archeologist with the record.”). By statute, a petition is required to identify “with particularity[] the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge.” 35 U.S.C. § 312(a)(3). The petition shall also include a “full statement” with “a detailed explanation of the significance of the evidence, including material facts.” 37 C.F.R. § 42.22(a)(2). In that regard, our rules require a petition to include both an adequate explanation of how the claims should be construed, as well as information sufficient to show how and why the properly construed claims are unpatentable over the asserted prior art. 37 C.F.R. § 42.104(b)(3), (b)(4). A petition should also “explain why a person of ordinary skill in the art would have combined elements from specific references in the way the claimed invention does.” *ActiveVideo Networks, Inc. v. Verizon Comm’ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012). Thus, based on our rules, we only consider fully developed arguments set forth in the petition.

Patent Owner argues that “[a] petition that sets forth extensive alternative grounds fails to meet the particularity requirement, and it may also independently be denied institution as an exercise of the Board’s discretion based upon the assertion of ‘voluminous and excessive grounds’ and lack of procedural fairness to the patent owner.” Prelim. Resp. 10 (quoting *Adaptics*, Paper No. 20 at 24; *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016)). According to Patent Owner, the Petition contains both (1) 11 eleven separate grounds specifically identified in the Petition and (2) multiple shadow grounds based

on testimony that is several times longer than the Petition and relies on many additional references. *Id.* at 10–12.

We are not persuaded by Patent Owner’s arguments. Unlike *Adaptics*, which involved potentially hundreds of distinct grounds challenging each claim due to the use of “and/or” in the catch-all ground (*see Adaptics*, Paper 20 at 19), the Petition only has, at most, two grounds for each claim (*see* Pet. 4).

Nor has Patent Owner shown any evidence of improper “shadow grounds.” Although Patent Owner points to the size of the declaration testimony and the number of exhibits relied on by the declarants, Patent Owner has not pointed to any examples of alleged improper use of the testimony or exhibits. We decline to perform analysis that is missing from the Preliminary Response. *See United States v. Dunkel*, 927 F.2d 955, 956 (7th Cir. 1991) (“Judges are not like pigs, hunting for truffles buried in briefs.”); *DeSilva* 181 F.3d at 866–67 (“A brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record.”).

To be clear, we make no judgment on the propriety of the declarants’ testimony or the cited exhibits at this time. If appropriate, Patent Owner can challenge (1) the admissibility of the exhibits and testimony and (2) specific arguments as going beyond the grounds stated in the Petition during the trial. But simply including a significant amount of testimony and a number of supporting references is not, by itself, a reason to find that the particularly requirement is not met.

F. Obviousness over Baig, Costa, and Zwicky

Petitioner argues that claims 1, 8, 9, 21, 24, 26, 31, 32, 34, 38, 39, 42, 53, 55, 61, 69, 76, 87, 88, 100, 103, 117, 121, 122, 135, 142, and 145–147 are unpatentable as obvious in light of the combination of Baig, Costa, and Zwicky. Pet. 7–20, 22–41, 48–51. Based on the current record, we are sufficiently persuaded that Petitioner has established a reasonable likelihood of prevailing on this asserted ground with respect to at least claim 1.

1. Overview of Baig

Baig is directed “to an apparatus and method for providing various services for mobile devices which are in communication with local area network wireless access points.” See Ex. 1040 ¶ 2.

Figure 1 of Baig is reproduced below.

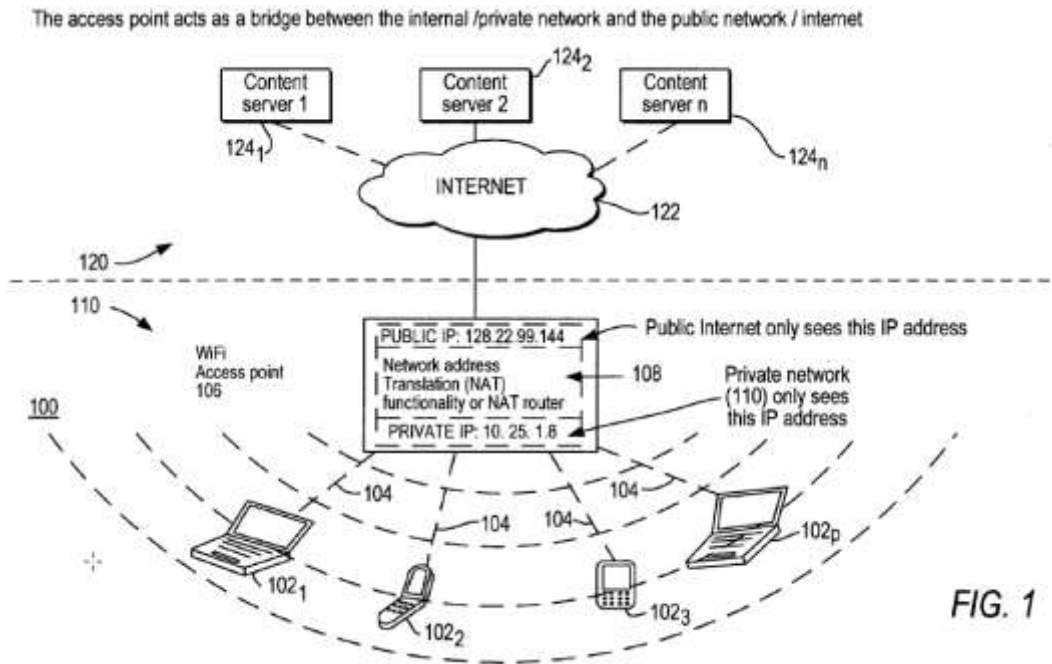


Figure 1 depicts a block diagram of communications network 100 including public wireless hotspot 110 communicatively coupled to public network 120 via access point (“AP”) 106. Ex. 1040 ¶¶ 13, 42. Public network 120

includes content servers 124₁, 124₂, 124_n that store and host information from websites. *Id.* ¶ 42. WiFi hotspot 110 enables at least one mobile device 102₁ through 102_p to communicate over local private network 104 and communicate with content servers 124₁, 124₂, 124_n over Internet 122. *Id.* ¶ 43.

Access point 106 includes a network address translation (NAT) router 108 that provides network address translation. *See* Ex. 1040 ¶ 43. Access point 106 utilizes a unique public IP address which relays data between public network 120 and wireless mobile devices 102 connected to local private wireless network 104. *Id.* ¶¶ 44–45. When mobile device 102 requests information from public network 120, it sends data packets containing a local IP address to access point 106. *Id.* ¶ 45. All devices on local private network 104 use local IP addresses that are not visible to public networks. *Id.* Access point 106 interacts with public network 120 with a public IP address, which is visible to all devices on public internet 122. *Id.* Access point 106, which includes NAT router 108, replaces the local IP address with its own public IP address and forwards the packets to content server 124 on public network 120. *Id.* ¶¶ 46, 51. When public network 120 sends packetized information back to requesting mobile device 102, NAT router 108 replaces the public IP address with the local IP address for mobile device 102 and routes the packetized information to the requesting mobile device 102. *Id.* ¶ 51.

Baig also discloses a vicinity-based community service provider (VCSP) having at least one content server that discovers wireless users within the physical vicinity of each other at a WiFi hotspot. Ex. 1040 ¶¶ 38, 52. The VCSP content server includes programs and data for hosting a

VCSP website. *Id.* ¶ 53. The VCSP server receives a login request from a user that is connected to a particular WiFi access point (hotspot), identifies the unique IP address of each WiFi access point, and identifies all users who have logged in from a common hotspot as having the same access point IP address, and forms a vicinity-based user group at each hotspot. *Id.* ¶¶ 38, 52, 55–59, Fig. 3. When a user at a hotspot logs onto the VCSP website, the user automatically becomes part of the vicinity-based user group, and then can access VCSP webpages to participate in or receive an offered service and communicate with other VCSP users via a chat room. *Id.* ¶ 59. Once the user logs into the VCSP website, the server presents a webpage to the user on his or her mobile device. *Id.* ¶ 74.

2. *Overview of Costa*

Costa is titled “Providing Mobile-specific Services for Mobile Devices via Ad-hoc Networks,” and discloses “a system, apparatus and method for exchanging data between a local network and a wireless device.” Ex. 1011, code (54), ¶ 10.

Figure 1 of Costa is reproduced below.

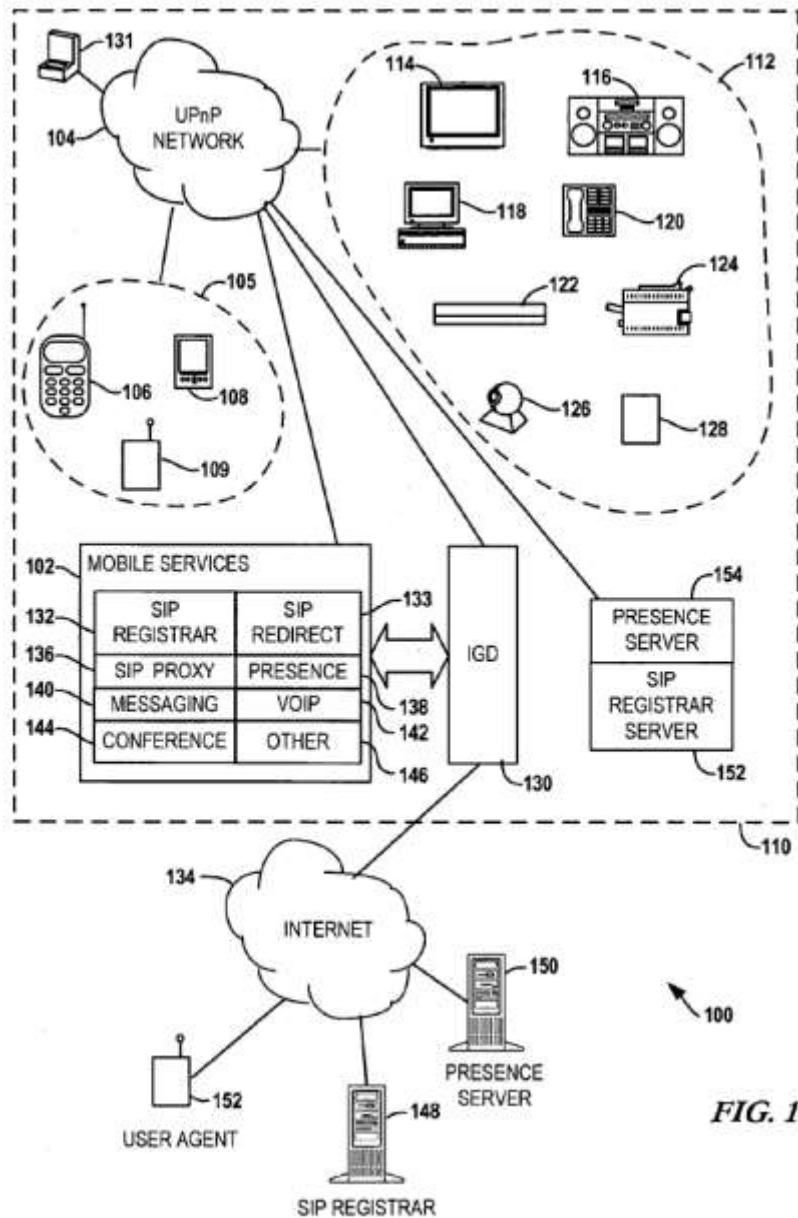


Figure 1 depicts a block diagram of an environment for providing mobile-specific services over a home network. Ex. 1011 ¶ 35. The environment 100 includes a mobile services provider arrangement 102 that provides access to mobile-specific services for devices that are capable of being coupled to a Universal Plug and Play™ (“UPnP”) network 104, such as mobile devices 105 (e.g., cellular phones 106; Personal Digital Assistants

(“PDA”) 108; and any other mobile devices 109). *Id.* UPnP network 104 allows devices to exchange data in a local environment 110, such as a home, office, automobile, airplane, boat, or public wireless hotspot. *Id.* ¶ 36. UPnP network 104 may couple consumer electronics devices 112 (e.g., televisions 114; audio systems 116; computers 118; telephones 120; digital media centers 122 such as set-top boxes (“STB”); printers 124; cameras 126; and other devices 128) using any manner known in the art and “any media or format known in the art or later developed.” *Id.* ¶¶ 36–37.

3. *Overview of Zwicky*

Zwicky is a textbook titled “Building Internet Firewalls,” which includes a section disclosing an NAT. Ex. 1012, 114. Zwicky discloses that the NAT allows a network to use one set of network addresses internally and a different set of addresses for dealing with external networks. *Id.* When an internal machine sends a packet to the outside, an NAT system modifies the internal source address of the packet to make the packet look like it is coming from a valid address. *Id.* at 115. When an external machine sends a packet to the inside, the NAT system modifies the destination address to turn the externally visible address into the correct internal address. *Id.* The NAT system also can modify the source and destination port numbers, known as Port and Address Translation. *Id.* at 115–16, Figs. 5-3, 5-4. The use of port mapping enables multiple internal machines to use the same external address. *Id.* at 116. The main purpose of NAT is to economize on address space. *Id.* NAT also has security advantages, such as helping to enforce the firewall’s control over outbound connections, restricting incoming traffic, and concealing the internal network’s configuration. *Id.* at 116–17.

4. *Analysis*

a) *The Preamble*

The preamble of claim 1 recites “[a] method implemented using a programmed hardware computer system.” Ex. 1001, 23:43–44. Petitioner argues that Baig teaches the preamble. See Pet. 7–8.

After reviewing Petitioner’s arguments and information regarding the preamble, including the Lett Declaration, which are not addressed by Patent Owner at this stage (see Prelim. Resp.), we are persuaded that Petitioner sufficiently demonstrates, for purposes of this Decision, that Baig teaches the preamble of claim 1.¹⁵ Our specific preliminary findings are set forth below.

Baig Figure 1 (reproduced in Section II.F.1) “illustrates a system with computing devices 102p that connect to content servers 124n over the Internet 122 via a shared AP 106.” Ex. 1007 ¶¶ 42, 43, Fig. 1. WiFi hotspot 110 enables devices 102 to communicate with each other and content servers 124 over Internet 122 via AP 106. *Id.* Each content server “includes at least one processor, memory and support circuitry for running programs.” *Id.* ¶ 52; see also Ex. 1002 ¶¶ 153–155, 188–190.

b) *Limitation 1A: The Associating Step*

Claim 1 further recites “(a) for each of a multitude of users, with the computer system, electronically associating an online access IP address of the user and a set-top box IP address of that user based on a common IP

¹⁵ Because Petitioner has sufficiently shown that the prior art teaches the preamble, we need not determine at this time whether the preamble is limiting. See *Nidec*, 868 F.3d at 1017. If Patent Owner contends that the preamble is limiting, it must do so in the claim construction section of the Patent Owner’s Response.

access point.” *Id.* ¶ 14. Baig Figure 2 illustrates “a communications network 200 [which] includes a public WiFi hotspot 110 coupled to the public Internet 122 in a conventional manner. . . . [M]obile devices 102₁ through 102₅ are connected via wireless communications to [the] Internet via the access point 106.” *Id.* ¶ 49.¹⁶ A person having ordinary skill in the art would have understood that each of Baig’s devices 102 is an “online user interface device,” while the content server is a “computer system.”
Ex. 1002 ¶ 193.

Additionally, a person having ordinary skill in the art would have understood “that packets sent over the Internet (e.g., between mobile devices 102 and various destinations on the public Internet 122) include[] an IP address of the source devices as well as an IP address of the destination devices.” Ex. 1002 ¶ 194; *see also* Ex. 1007 ¶ 44 (“An IP address is necessary because all data communications take[] place in form of data packets. Each packet must contain the IP address of the source device and the IP address of the destination device.”). Baig teaches that “[t]he access point 106 utilizes a unique ‘public’ IP address (e.g., 126.22.99.144 illustratively shown in FIG. 1) which relays data between the wireless mobile devices 102 connected to the wireless network 104 and the external or public network, such as the Internet 122.” Ex. 1007 ¶ 44. As step 3 of Figure 2 explains, “[a]ll outgoing traffic from this hotspot will carry the IP address of the access point M, as the source IP address.” *Id.* at Fig. 2; *see also id.* ¶ 50 (“[A]ll outgoing traffic from the hotspot 110 carry the IP address of the access point 106 as the source IP address for all users.”).

¹⁶ Figure 2 also refers to AP 106 as “access point M.” Ex. 1007, Fig. 2 (step 2).

Baig describes how mobile devices 102 can be devices “such as a laptop computer, PDA, and the like, to communicate (e.g., exchange information) with each other over a local private network 104, as well as to communicate with the content servers 124 over the Internet 122 via the access point 106.” Ex. 1007 ¶ 54. Although an STB is not listed in Baig, for the reasons discussed below, it would have been obvious to a person having ordinary skill in the art to use an STB as one of Baig’s mobile devices. *See* Ex. 1002 ¶¶ 156, 157, 195–197.

Costa teaches various devices that can be connected to a public wireless hotspot, including laptop computers, PDAs and STBs. Ex. 1011, Fig. 1, ¶¶ 35–36. Applying Costa’s STB to Baig’s system results in a common hotspot that is connected to an STB and at least another device via the common IP address of AP 106. Ex. 1002 ¶¶ 158, 198, 199.

A person having ordinary skill in the art would have incorporated Costa’s STB into Baig’s system. *See* Ex. 1002 ¶¶ 159–165, 198. “[T]he combination of Baig and Costa would have been obvious because the combination merely combines known prior art elements according to known methods to yield predictable results.” Ex. 1002 ¶ 162; *see also KSR*, 550 U.S. at 417 (“[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.”). That is, “both Baig’s computer system and Costa’s description of a system where its set-top box might be used are wireless hotspot systems that provide Internet access to a number of computing devices.” Ex. 1002 ¶ 162. It would have been obvious to a person having ordinary skill in the art to have combined the two

references according to known method and to have expected the combination to yield predictable results. *Id.* This would have been done with a reasonable expectation of success. *Id.* ¶¶ 164–165.

Additionally, a person having ordinary skill in the art would have understood that Baig teaches the recited “electronically associating” IP addresses. *See* Ex. 1002 ¶¶ 200–208. Specifically, Baig teaches that “the server 224 identifies all the users who have logged in from a common hot spot as having the same access point IP address.” Ex. 1007 ¶ 56; *see also id.* at Fig. 3; Ex. 1002 ¶ 200. In the combination of Baig and Costa, this would include Costa’s STB. *See* Ex. 1002 ¶ 201; Ex. 1007 at Fig. 2 (“All outgoing traffic [will] carry the IP address of the access point,” and showing outgoing traffic routed to server 224 over Internet 122.).

As further support, Baig maintains a list of devices connected to the hotspot that share a common IP address. Specifically, Baig explains that “[t]he server 224 includes at least one processor, memory and support circuitry for running programs that, for example, identify users that are originating from a particular access point 106 and then groups those users having a common IP address to the same hotspot 110.” Ex. 1007 ¶ 52. Baig further teaches that content server(s) 124/224 generate and transmit a webpage to mobile devices 102 accessing the webpage 600. *Id.* ¶ 74; Ex. 1002 ¶ 203. A person having ordinary skill in the art would have understood that this means that devices are connected to the servers 124/224 using the common IP address of the same access point. Ex. 1002 ¶ 203. A person having ordinary skill in the art would have further understood that Baig’s content server generates and stores a list that indicates which devices, including Costa’s STB, are connected using the common IP address. *Id.*

¶ 204. Because Baig’s list associates (in a vicinity-based group) devices connected using the same IP address, a person having ordinary skill in the art would have understood that Baig’s list shows the claimed “electronically associating an online access IP address of the user and a set-top box IP address of that user based on a common IP address.” *Id.*

Limitation 1A further recites that the associated IP addresses and corresponding devices be “of [the same] user” and that the electronic association is performed “for each of a multitude of users.” Ex. 1001, 23:45–51. Because Baig teaches a user as an individual operating a mobile device at a hotspot (*see* Ex. 1007 ¶¶ 3–6, 38, 39), a person having ordinary skill in the art would have understood that the multiple devices of various individuals teach the recited “user.” Ex. 1002 ¶ 205; *see also* Ex. 1001, 8:31–53 (describing a user as one or more persons). Moreover, because Baig teaches multiple vicinity-based communities corresponding to different hotspots (*see* Ex. 1007 ¶¶ 54, 59, 61, 121, 122, Fig. 3 (steps 314, 316)), a person having ordinary skill in the art would have understood that Baig teaches the same process of associating IP addresses described above being performed “for each of a multitude of users.” Ex. 1002 ¶ 205.

Baig further teaches that “access point 106 includes a network address translation device 108, and provides network address translations (NAT)” to individually identify and communicate with the devices connected through the access point 106. Ex. 1007 ¶¶ 43, 49–51; Ex. 1002 ¶¶ 207–208. A person having ordinary skill in the art would have understood that the NAT would allow the hotspot AP to identify individual devices. Ex. 1002 ¶ 207.

Although Baig teaches using an NAT, it does not explain how the NAT works. *See* Ex. 1007; Ex. 1002 ¶ 209. A person having ordinary skill

in the art would have turned to a reference like Zwicky for such an understanding. See Ex. 1002 ¶ 209. The NAT “allows a network to use one set of network addresses internally and a different set when dealing with external networks.” Ex. 1012, 114. The NAT works by having a router modify a packet sent to the outside “to make the packet look as if it is coming from a valid address” and modify external packets it receives “to turn the externally visible address into the correct internal address.” *Id.* at 115; see also *id.* at Fig. 5-4. Using such a system, “network traffic is routed to the proper client based on the distinct TCP/IP port numbers (i.e., part of the device identifiers) for each client.” Ex. 1002 ¶ 214; see also Ex. 1012, 115–16.

Based on Zwicky, a person having ordinary skill in the art would have understood that in the Baig-Costa-Zwicky combination, each device is identifiable by the combination of (a) the common IP address of the AP to which a mobile device (“online user interface device”) and STB are connected, and (b) TCP/IP port numbers associated with the mobile device and STB respectively, using NAT techniques. Therefore, a person having ordinary skill in the art would have understood that the combination teaches “associating an online access IP address of the user and a set-top box IP address of that user based on a common IP address” as recited in claim 1.

Limitation 1A further recites “wherein network traffic is routed via the common IP address to both an online user interface device and a set-top box of that user.” Ex. 1001, 23:45–51. Baig’s Figure 1 shows a plurality of content servers (computer systems) that communicate through the internet via an NAT router at access point 106 to connect to local network 104 to communicate with devices 102. Ex. 1007, Fig. 1; Ex. 1002 ¶ 220. Access

point 106 provides a common IP address for the various devices 102, which would include Costa's STB. Ex. 1007, Fig. 2; Ex. 1002 ¶ 221.

c) Limitation 1B: The Directing Step

Claim 1 further recites “(b) using user profile information derived from online activity from a first online user interface device via a first one of the online access IP addresses of the multitude of users, with the computer system automatically causing a first television advertisement to be directed to a set-top box for presentation via that set-top box, selectively, wherein the set-top box is indicated by the set-top box IP address associated with the first online access IP address.” Ex. 1001, 23:52–60. Petitioner argues that the combination of Baig, Costa, and Zwicky teaches limitation 1B. See Pet. 24–28.

After reviewing Petitioner's arguments and information regarding the preamble, including the Lett Declaration, which are not addressed by Patent Owner at this stage (see Prelim. Resp.), we are persuaded that Petitioner sufficiently demonstrates, for purposes of this Decision, that the combination of Baig, Costa, and Zwicky teaches Limitation 1B. Our specific preliminary findings are set forth below.

With respect to the “user profile information derived from online activity from a first online user interface device via a first one of the online access IP addresses of the multitude of users,” as discussed above with regard to limitation 1A, Baig teaches creating a vicinity-based group of devices connected via the same AP. During the registration process for the group, “profile information about our users, such as age, gender, occupation, interests and the like are requested . . . and securely stored by the VCSP.” Ex. 1007 ¶ 93. That information corresponds to the claimed “user profile

information derived from online activity” recited in claim 1. *See* Ex. 1002 ¶ 224–226; Ex. 1001, 5:46–67 (describing user profiles). And, as discussed in the previous section, each of the devices is connected to the same AP and has the same IP address.

With respect to “with the computer system automatically causing a first television advertisement to be directed to a set-top box for presentation via that set-top box, selectively,” Baig teaches “vicinity-based advertising in which ‘advertisers can target the audience of a particular hotspot’ based on user profile information derived from online activity.” Ex. 1002 ¶ 232 (citing Ex. 1007 ¶¶ 58, 59, 61, 93–95). Specifically, Baig teaches that “advertisers can target the audience of a particular hotspot according to the profile, e.g., age/gender etc. of the users and/or a particular time of the day.” Ex. 1007 ¶ 93. Because “Baig does not teach or suggest requiring a user to take a specific action to cause Baig’s process of providing advertisements to occur,” a person having ordinary skill in the art would have understood that the process is automatic. Ex. 1002 ¶ 233; *see also* Ex. 1007 ¶¶ 59 (“[W]hen a user at a hotspot logs into the website of the VCSP 202, the user automatically becomes part of the vicinity-based user group.”), 74 (“As described above, once a user registers on the web page illustrated in FIG. 5, and then logs into the VCSP website on the home page as illustrated in FIG. 4, the server 224 presents the web page illustrated in FIG. 6 to the user on his/her mobile device 102.”), Fig. 22 (showing a process for receiving VCSP user profile information and, without any action by a user (automatically), selecting and providing advertisements “based on geographic location of the hotspot, *profiles of users at a hotspot*, and time of day” (emphasis added)).

In the combination, the advertisements would be sent to Costa's STB and would be television advertisements. Ex. 1002 ¶¶ 236–237.

Additionally, Baig teaches that the advertisement is based, *inter alia*, on the user's profile. Ex. 1007 ¶ 93. A person having ordinary skill in the art would have understood that selecting an advertisement based on criteria such as a user profile is “selectively” as recited in claim 1.

Finally, because as discussed in the previous sections, Baig's network traffic is routed using the NAT, this allows “Baig's system to uniquely identify, differentiate, and properly route traffic between individual devices communicating over the Internet.” Ex. 1002 ¶ 239.

d) Conclusion Regarding Claim 1

Based on the current record, there is a reasonable likelihood that Petitioner will prevail in demonstrating that claim 1 is unpatentable as obvious over Baig, Costa, and Zwicky.

5. *Analysis of Claims 8, 9, 21, 24, 26, 31, 32, 34, 38, 39, 42, 53, 55, 61, 69, 76, 87, 88, 100, 103, 117, 121, 122, 135, 142, and 145–147*

Because Petitioner demonstrates a reasonable likelihood of success in proving that at least one claim of the '260 patent is unpatentable, we institute on all grounds and all claims raised in the Petition. See 37 C.F.R.

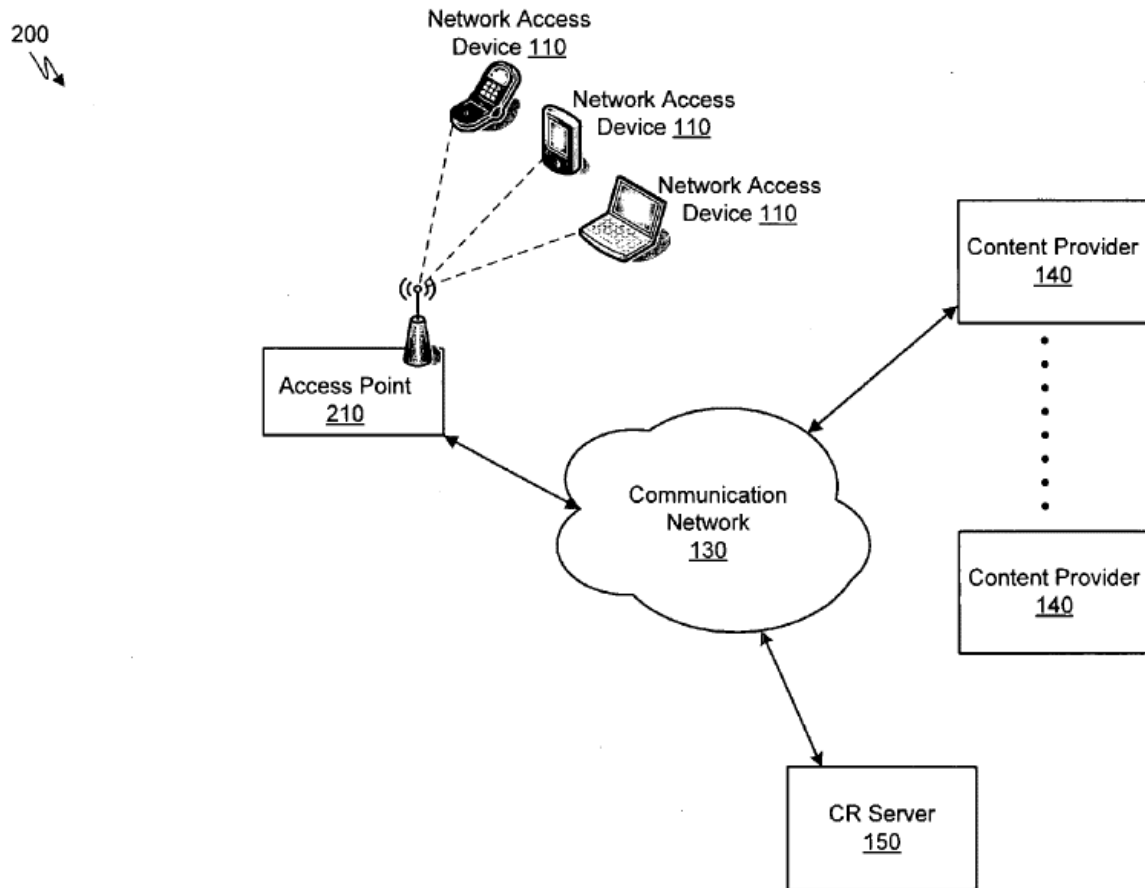
§ 42.108(a). Therefore, at this stage of the proceeding, it is not necessary for us to provide an assessment of every claim in the ground challenged by Petitioner, especially, as in this case, when Patent Owner does not separately argue those claims. Those challenges, in our view, are best left for trial after full development of the record.

G. Remaining Grounds

1. *Overview of Banga '690*

Banga '690 discloses systems and methods for developing customer relationships with a network access point. See Ex. 1014 ¶ 9, code (57).

Figure 2 of Banga is reproduced below.



Banga Figure 2 illustrates environment 200 which includes communication network 130 connected to client relationship (CR) server 150 and content providers 140, as well as multiple network access devices 110 connected to communication network 130 through access point 210. Ex. 1014 ¶¶ 22–33. Network access device 110 can be any digital device capable of communicating over a network, such as a computer, laptop, personal digital assistant, or cellular phone. *Id.* ¶ 24.

Each network access device 110 may contain a device identifier such as a media access control (MAC) address, an international mobile station identity (IMSI), or an international mobile equipment identity (IMEI).

Ex. 1014 ¶ 24. When network access device 110 seeks network access, it provides a device identifier such as a MAC address to access point 210. *Id.* ¶ 30. Access point 210 is configured to direct the device identifier and access information to CR server 150. *See id.* ¶ 33.

Access information can comprise any information associated with the network access device 110 sending the device identifier to the CR server 150. In one example, access information identifies the access point 210 (such as an IP address or other identifier). The access information may also comprise an access point identifier (e.g., information that identifies the sending access point 210, service provider 120, or device sending the device identifier)[, and] information identifying the date and time the network access device 110 seeks access.

Id. ¶ 34.

CR server 150 is configured to receive the device identifier and access information from access point 210 and store it in a device record. Ex. 1014 ¶¶ 37, 42. The device record tracks the device identifier and access information. *Id.* ¶ 37. Each different device identifier may have a different device record. *Id.* ¶ 38. CR server 150 generates user profiles based on the information contained within the device record (e.g., device identifier, access information). *Id.* ¶¶ 39, 42, 46. “A user profile may be an individual profile of a user identifying one or more individual characteristics or one or more group characteristics of multiple users.” *Id.* ¶ 39; *see also id.* ¶ 46 (“The user profile may comprise one or more device identifiers.”), ¶ 47.

Figure 4 of Banga '690 is reproduced below.

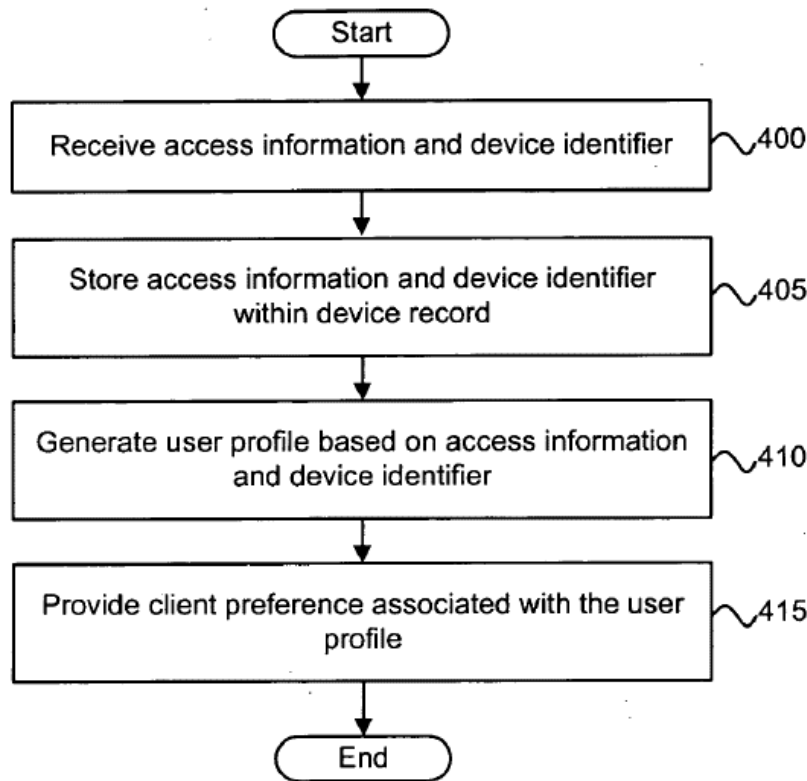


Figure 4 is a flow chart of a method for providing a user preference to develop customer relationships. Ex. 1014 ¶ 53. In step 400, CR server 150 receives access information and the device identifier. *Id.* In step 405, CR server 150 stores the access information and device identifier within a device record. In step 410, CR server 150 generates a user profile based on the access information and the device identifier, and may be based on the device history or other information associated with the device identifier. *Id.* ¶ 57. In step 415, CR server 150 provides the user preference associated with the user profile, such as an advertisement tag. *Id.* ¶¶ 59–60.

In an example, the CR server 150 may receive an index of advertisements and associated advertisement information (e.g., brands associated with the advertisements.) A device record may refer to a user currently accessing a content provider 140. Instead of placing a random advertisement on the content provider 140

for the user to see, the advertisement server may direct a request for an advertisement tag with the user's IP address to the CR server 150. The CR server 150 can then check the user profile for the user using the user's IP address. If the user is within a user profile or a user profile can be generated from a device record, then the CR server 150 will use the user profile to select an advertisement from the index of advertisements that satisfy the requirements of the advertisement server and fit the user profile. The advertisement tag (i.e., user preference) can then be sent to the advertisement server, which in turn, can provide the proper advertisement to the content provider 140.

Id. ¶ 60.

2. *Overview of Howcroft*

Howcroft is titled "System and Method for Single Sign On Targeted Advertising," and discloses a method for sending targeted advertising data and a system and computer program for performing the method. Ex. 1016, codes (54), (57).

Howcroft describes a method of Single Sign On ("SSO") targeted advertising in which the SSO end user is a triple play network subscriber. Ex. 1016, ¶ 22. The triple play network may include an IPTV network, VoIP network, cellular phone network, and Internet service provider network. *Id.* The subscriber is assigned an identifier that may be used with a targeted advertising management system ("TAMS"). *Id.* The TAMS may be used to select advertisements to be sent to the subscriber on the triple play network based on a shopping list the subscriber inputs, recent internet search information, other internet activity such as visited uniform resource indicators (URIs), anonymous reverse look-up of telephone numbers dialed in the VoIP or cellular telephone system, or chat message text from the devices using the triple play network. *Id.* ¶¶ 22, 26, 30.

Howcroft's Figure 2 is reproduced below.

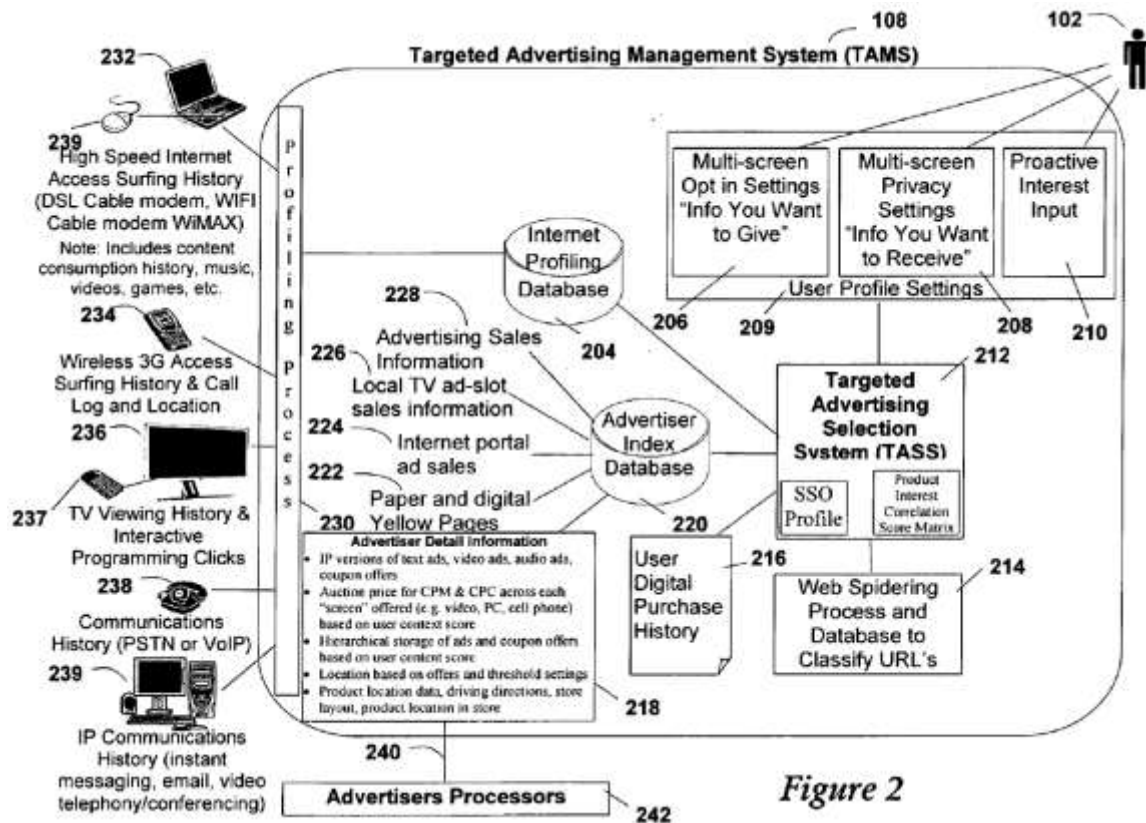


Figure 2

Howcroft's Figure 2 is a block diagram of system components in a targeted advertising system. Ex. 1016 ¶ 5. The system components in the targeted advertising system in Figure 2 include the TAMS 108; various end user devices such as telephones 238, remote controls for television viewing selections and interactive programming clicks or menu selections 236, cell phones 234 for accessing the Internet and calling, and personal computers/laptop computers and other IP devices 232; and an advertiser processor 242. *Id.* ¶¶ 35, 39, 45.

An internet profiling process 230 monitors the SSO subscriber's end user device data, such as outgoing calls, telephone numbers called, Internet access surfing history, content consumption, music, videos and games, IM, text messaging, chatting, and locations, and stores it in an internet profiling

database. Ex. 1016, ¶ 39. The system accesses an advertisements database 220 in the TAMS 108 to select a targeted advertisement to send to the SSO subscriber based on a product interest correlation score (“PICS”). *Id.* ¶ 35. The TAMS 108 automatically calculates the PICS and “recommends and/or selects an advertisement, SSO end user device and advertisement modality to be used to send a selected advertisement to a selected SSO subscriber end user device based on the SSO subscriber’s current usage scenario,” such as the subscriber’s current end user device, location, and activity. *Id.*; *see also id.* ¶¶ 48–49.

3. *Overview of Smith*

Smith is titled “System and Method for Profiling Different Users Having a Common Computer Identifier,” and discloses methods and systems for “tracking user activity at a terminal on a communication network” and for “generating user profiles based on user activity” at a communication terminal. Ex. 1021, code (54), ¶ 1.

Smith describes methods of tracking and differentiating user activity by analyzing cookies, user activity during a browse period, timing of browse periods, and channel views to create individual user profiles. Ex. 1021, ¶¶ 6, 15–16, 34. According to Smith, “[i]n previously known systems, systems for generating user profiles used the cookie data to recognize a client device that has subsequent communication sessions with the content communication site.” *Id.* ¶ 35. However, such systems are limited because “they do not evaluate the user activity data to determine whether the user activity comports with a user profile associated with the client device” such that “the analysis done on the user activity is used to alter the user profile history and that affects its accuracy.” *Id.*

Smith's system analyzes user terminal activity data to extract profile data (e.g., identifiers for requested resources), personal data from returned forms (e.g., campaign responses), terminal identifiers (e.g., cookie data and IP addresses), site identifiers (e.g., web site addresses, metadata, identifiers for pages and other resources browsed by the user), identifiers for data objects clicked by the user, items purchased by the user, and other data that may be used to identify preferences of a user. Ex. 1021, ¶ 38. Smith's system provides these data to a user identifier and the user identifier searches the data to locate keys or indices. *Id.* Keys are data that identify the terminal or account from or through which the user accesses the communication network to which Smith's system is coupled. *Id.* The user identifier uses the keys to find existing user profiles. *Id.* Smith's system uses the user profile data to select content for inclusion in responses and other documents sent to a client. *Id.* ¶39.

4. *Overview of Middeljans*

Middeljans is titled "Arrangement for Distributing Content, Profiling Center, Receiving Device and Method," and discloses "an arrangement for distributing content, and to a profiling center and a receiving device for use in such an arrangement." Ex. 1023, code (54), ¶ 1.

Middeljans describes an arrangement comprising an aggregator, a receiving device, a profile transmitting means, and a profiling center. Ex. 1023, ¶ 8. The aggregator is arranged for bundling content according to a segment profile and distributing the content to the receiving device. *Id.* The receiving device comprises "user profile maintenance means for maintaining a user profile." *Id.* The profile transmitting means transmits the user profile to a profiling center, which is "arranged for aggregating user

profiles received from plural receiving devices into an aggregated profile, and for making the aggregated profile available to the aggregator for use as the segment profile.” *Id.* “The profiling center can correlate the user profiles for the consumers who listened, watched, and/or bought the content, and thereby can create enhanced profiles for these consumers” and create and maintain highly accurate consumer segment profiles. *Id.* ¶¶ 8–9. The user profiles may be used for targeting marketing campaigns, broadcasting decisions, content formatting, and other applications. *Id.* ¶¶ 47–51, 54.

5. *Overview of Koningstein*

Koningstein is titled “System and Method for Delivering Internet Advertisements that Change Between Textual and Graphical Ads on Demand by a User,” and discloses systems and methods of “providing unobtrusive, expandable advertisements over the Internet” and delivering “a morphing advertisement that changes from one display format to another display format based on user request.” Ex. 1024, code (54), ¶ 2.

Koningstein describes morphing advertisements in response to selection of an expansion icon, selection in a frame box, a market on the side, below[,] or above the advertisement, selecting or roll over selected portions or highlights of the advertisement, simple “pass over” of the text related to the ad, [and] other forms of user-initiated and controlled actions or other conditions.

Ex. 1024, ¶ 22. Koningstein also describes monitoring user manipulations and timing of advertisements so that advertisement hosts can determine advertisement creative quality and to improve advertisement targeting quality. *Id.* ¶ 40. According to Koningstein, advertisement hosts can use information about user responses to advertisements “as a criterion for determining whether or not to show a particular advertiser’s advertisement.” *Id.* ¶ 39.

Koningstein also includes an embodiment of a system for receiving and delivering morphing and menu-driven advertisements. In Koningstein's system, advertisement providers connect to an advertisement listings provider over a network to register and provide payment information, one or more price parameters (e.g., an amount an advertiser is willing to pay for each click, bid amount, price information, or other measure of price), and advertisements associated with the price parameters. Ex. 1024, ¶ 44. The advertisement listings provider distributes the listings to pages displayed to end users through various forums or feeds, including direct distribution in print media, providing the listings on one or more web sites affiliated with the advertisement listings provider, internet advertising distribution partners, content systems, and search engine systems. *Id.* The advertisement listings provider generally generates revenue when end users complete performance parameters or some other monetization events relevant to an advertisement such that the advertising system can charge a price parameter selected by the participating advertisement providers. *Id.* ¶ 48.

6. *Overview of Banga '633*

Banga '633 is titled "Systems and Methods of Network Operation and Information Processing, Including Data Acquisition, Processing and Provision and/or Interoperability Features," and discloses "systems and methods for network operation, information gathering and processing, and targeted content delivery including business models and/or advertising methodologies." Ex. 1025, code (54), ¶ 12.

Banga '633 describes a system, apparatus, and method for targeted content delivery that comprises registering users logging-on to a computer network or any form of IP network and gathering user-related information

from users, such as location information. Ex. 1025, ¶ 13. The “[l]ocation-centric information for each user logged-on to the network is relayed to a server, and user-profile information for each user is retrieved from a database” and “processed to get targeting information for each user.” *Id.* “[T]he targeting information is sent to a content-provider wherein the content-provider uses the targeting information to select content to be displayed to users.” *Id.*

7. Analysis

Because Petitioner demonstrates a reasonable likelihood of success in proving that at least one claim of the ’260 patent is unpatentable, we institute on all grounds and all claims raised in the Petition. *See* 37 C.F.R. § 42.108(a). Therefore, at this stage of the proceeding, it is not necessary for us to provide an assessment of every challenge raised by Petitioner, especially, as in this case, when Patent Owner does not separately argue this ground. Those challenges, in our view, are best left for trial after full development of the record.

III. CONCLUSION

Following 35 U.S.C. § 314, we have determined that the totality of the information presented at this stage shows there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims challenged in the Petition, and we institute on all grounds raised and all claims challenged in the Petition.

Our factual findings, conclusions of law, and determinations at this stage of the proceeding are preliminary, and based on the evidentiary record developed thus far. This is not a final decision as to the patentability of

claims for which *inter partes* review is instituted. Our final decision will be based on the record as fully developed during trial.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1, 6, 8–10, 21, 23–26, 29–34, 38–40, 42, 43, 45–53, 55, 59–61, 63–70, 76, 81, 82, 85, 87–89, 100, 102–104, 107–115, 117, 120–124, 126, 129–136, 142, 145–147, 149, and 150 of the '260 patent on the unpatentability grounds asserted in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

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