

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FREEWHEEL MEDIA, INC.,
Petitioner,

v.

INTENT IQ, LLC,
Patent Owner.

IPR2024-00419
Patent 11,564,015 B2

Before THOMAS L. GIANNETTI, LYNNE H. BROWNE, and
STACEY G. WHITE, *Administrative Patent Judges*.

GIANNETTI, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

FreeWheel Media, Inc. (“Petitioner”) filed a Petition requesting *inter partes* review (“IPR”) of claims 1–26 of U.S. Patent No. 11,564,015 B2 (Ex. 1001, “’015 patent”). Paper 2 (“Pet.”). The ’015 patent is also the subject of a second petition for *inter partes* review filed by Petitioner on the same day as this request. Pet. x; *see* IPR2024-00420.

Patent Owner Intent IQ filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). Patent Owner’s Preliminary Response does not address the merits of Petitioner’s challenge to patentability. Instead, Patent Owner contends that the Board should exercise its discretion to deny one of the two parallel petitions Petitioner has filed challenging the same claims of the ’015 patent. *See* Prelim. Resp. 1, 5–8. Alternatively, Patent Owner contends the Board should deny institution because the Petition violates the particularity requirement of 35 U.S.C. § 312(a)(3) “by setting forth *eleven* express grounds of invalidity based on *nine* prior art references.” *Id.* at 1–2, 8–13.

We have authority to determine whether to institute review under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). An *inter partes* review may not be instituted unless it is determined that “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).

For the reasons provided below, we determine, based on the record before us, there is a reasonable likelihood Petitioner would prevail in showing at least one of the challenged claims is unpatentable. Furthermore, we deny Patent Owner’s request that we exercise our discretion to deny

institution in this proceeding based on the filing by Petitioner of a parallel petition or due to the alleged lack of particularity in the Petition. We therefore institute *inter partes* review on all claims and all grounds. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348 (2018).

B. Related Matters

The parties indicate the '015 patent is or was the subject of the following district court proceedings: *AlmondNet, Inc. v. Freewheel Media, Inc.*, 1:23-cv-00220-MN (D. Del.); *AlmondNet, Inc. and Intent IQ, LLC v. Viant Technology Inc. et al.*, 1:23-cv-00174 (D. Del.). Pet. ix–x; Paper 6, 1. As noted previously, the '015 patent is also the subject of a second petition for *inter partes* review in IPR2024-00420, filed by Petitioner on the same day as this request. Pet. x. In addition to the two separate petitions challenging the '015 patent, Petitioner has filed ten other petitions for *inter partes* review of patents related to the '015 patent.¹

Consistent with the Board's practice for handling parallel petitions, Petitioner filed a Petition Ranking (Paper 3, "Notice"). *See* Patent Trial and Appeal Board Consolidated Trial Practice Guide (November 2019).² In the Notice, Petitioner ranks this Petition first among the two petitions challenging the '015 patent and the petition in IPR2024-00420 second. Notice 1. As is discussed in our separate decision in IPR2024-00420, entered concurrently, we have discretion to deny a parallel petition under 35 U.S.C. § 314(a). In view of Petitioner's ranking and our assessment of the

¹ Those ten additional petitions are the following: IPR2024-00413, IPR2024-00414, IPR2024-00415, IPR2024-00416, IPR2024-00417, IPR2024-00418, IPR2024-00421, IPR2024-00422, IPR2021-00423, and IPR2024-00424.

² Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

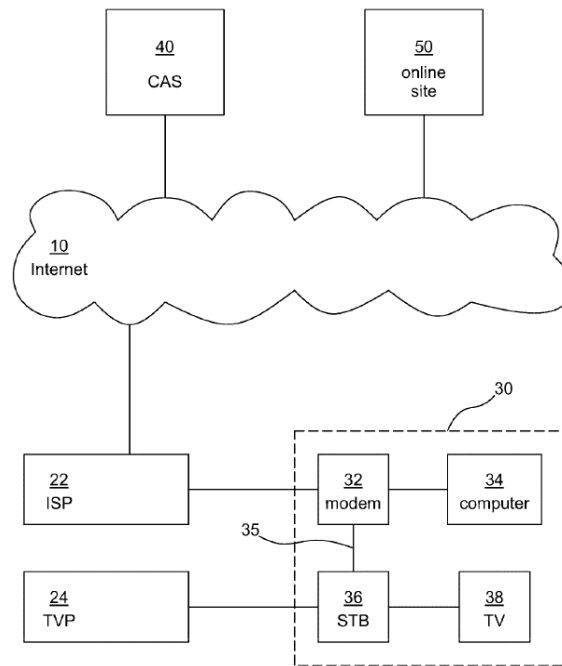
merits of this case, we do not reach that issue here. Instead, we address the issue in our institution decision in IPR2024-00420.

The parties disclose also that patents related to the '015 patent have been involved in numerous district court litigations and proceeding before the PTO. *See* Pet. xi–xv; Paper 6, 1.

C. The '015 Patent (Ex. 1001)

The '015 patent discloses a method for delivering targeted television advertisements based on online behavior. *See* Ex. 1001, Abstract. The patent describes using existing devices and technologies such as a set-top box (STB) (“a device that connects a television and a signal source”), a central ad server (CAS) (“a computer server that manages delivery of online advertisements to visitors of online sites”), and profiles or partial profiles that “can contain any quantity of profile information, such as, in one example, just an online access IP address used by a person at the time his profile was collected and the identity of the profile provider.” *Id.* at 1:49–2:7, 4:61–5:17, 6:3–24.

This is illustrated in Figure 7 of the '015 patent reproduced below:



In this example, Figure 7 depicts CAS 40 and online site 50 connected to Internet 10, modem 32 connected to computer 34, STB 36, and Internet service provider (ISP) 22, and STB 36 connected to TV 38 and television provider (TVP) 24. *See* Ex. 1001, 13:5–13. An identifier can be assigned to STB 36, such as an equipment serial number, a device MAC address, a username, a pseudonym, a tag, or other identifying code or data element, and may include the IP address STB 36 is using when in contact with CAS 40. *See id.* at 15:30–47. Once an STB is confirmed to have been using a certain IP address at a certain date and time (for example, by having a uniquely tagged STB consecutively communicate with the CAS using the same IP address), a CAS database can be searched to find all computers, mobile devices, and other STBs that used the same IP address at the same date and time. *Id.* at 18:59–66. Those will be assumed to be devices that are part of the same household and same LAN. Then, an association or link is created

among the devices by linking the device identifiers or tags with the STB's identifier in the CAS database. *Id.* at 18:67–19:4.

Once the association is created, profile information collected about the computers and mobile devices before and after the association was created can be used to target ads to the STB, regardless of the IP addresses used by the computers and mobile devices (such as cell phones) to access the web at the time the profiles were collected. Ex. 1001, 19:13–19.

D. Illustrative Claim

Claims 1–26 (all claims) are challenged. Claims 1 and 14 are independent. Claim 1 is illustrative and is reproduced below.³

[1A] A computer system comprising at least one hardware server computer, wherein the computer system is programmed and connected to perform a method of using common IP addresses to identify associations among multiple electronic devices and using an identified association to cause cross-device action, the method comprising:

[1B] (a) with the computer system, creating an electronic database containing a multitude of associations, each indicating an association between device identifiers of two or more Internet-accessing electronic devices of a multitude of Internet-accessing electronic devices, wherein:

[1C] (i) each of the associations is determined using stored data relating to Internet access by various of the multitude of devices, the stored data comprising (A) a device identifier of one of the Internet-accessing devices, (B) an IP address through which the one of the devices accessed the Internet, and (C) a timestamp identifying when the one of the devices accessed the Internet;

[1D] (ii) at least some of the associations indicate association between at least two devices of the two or more

³ Paragraph labels provided by Petitioner have been added in brackets. *See* Ex. 1002, Lett Decl. App. C.

Internet-accessing electronic devices, which association is determined by using the stored data to determine that both of the at least two devices have accessed the Internet via a common IP address at respective times satisfying a predetermined time-relation criterion;

[1E] (iii) at least some of the associations indicate association between at least two devices of the two or more Internet-accessing electronic devices, which association is determined without use of personally identifiable information; and

[1F] (iv) the computer system determining the associations accesses the Internet without using any of the common IP addresses of the associations identified in part (ii); and

[1G] (b) when the computer system and a first device identified in a first association are in communication with one another, with the computer system using a device identifier of the first device and user profile information associated with a device identifier of a second device identified in the first association to cause an automatic action to be taken with respect to the first device, wherein:

[1H] (i) the first association is one of the associations identified in part (a)(ii); and

[1I] (ii) the first association was stored in the electronic database described in part (a) prior to the computer system and the first device being in communication with one another as described in part (b).

Ex. 1001, 24:25–25:9.

E. Prior Art and Other Evidence

The Petition relies on the following references:

Name	Reference	Date	Exhibit No.
Satapati	US 2004/0076180 A1	Apr. 22, 2004	1006
Baig	US 2008/0113674 A1	May 15, 2008	1007
Costa	US 2006/0128364 A1	Jun. 15, 2006	1011
Zwicky	Zwicky, et al., <i>Building Internet Firewalls</i> (2d Ed.)	2000	1012
Banga507	US 2006/0265507 A1	Nov. 23, 2006	1015
Banga690	US 2006/0271690 A1	Nov. 30, 2006	1016
Damick	US 2006/0242294 A1	Oct. 26, 2006	1017
McFarland	US 9,123,071 B1	Filed Mar 29, 2006	1018
Ashbaugh	US 8,930,239 B2	Filed Dec. 29, 2005	1019

In addition, Petitioner submits the Declaration of David B. Lett in support of its Petition. Ex. 1002 (“Lett Decl.”).

F. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–26 are unpatentable based on the following grounds (Pet. 3):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–7, 9, 10, 12–20, 22, 23, 25, 26	103(a) ⁴	Baig, Banga507, Banga690, McFarland
8, 21	103(a)	Baig, Banga507, Banga690, McFarland, Costa
11, 24	103(a)	Baig, Banga507, Banga690, McFarland, Ashbaugh

⁴ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. §103 effective March 16, 2013. Because the ’015 patent asserts a filing date prior to the effective date of the applicable AIA amendment, we refer to the pre-AIA version of §103.

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–7, 9, 10, 13–20, 22, 23, 26	103(a)	Baig, Zwicky, Damick
1–7, 9, 10, 13–20, 22, 23, 26	103(a)	Baig, Satapati, Damick
8, 21	103(a)	Baig, Zwicky, Damick, Costa
8, 21	103(a)	Baig, Satapati, Damick, Costa
11, 24	103(a)	Baig, Zwicky, Damick, Ashbaugh
11, 24	103(a)	Baig, Satapati, Damick Ashbaugh
12, 25	103(a)	Baig, Zwicky, Damick, Banga507
12, 25	103(a)	Baig, Satapati, Damick, Banga507

II. ANALYSIS

A. Claim Construction

In an *inter partes* review proceeding, the Board applies the same claim construction standard as is applied in federal courts in a civil action under 35 U.S.C. § 282(b), which is generally referred to as the *Phillips* standard. *See* 37 C.F.R. § 42.100(b); *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Under the *Phillips* standard, “words of a claim ‘are generally given their ordinary and customary meaning.’” *Phillips*, 415 F.3d at 1312.

Petitioner asserts that “[n]o express construction is necessary at this time.” Pet. 7 (citing Lett Decl. ¶ 133). At this stage, Patent Owner does not offer any response on claim construction. As demonstrated in the analysis below, at this stage of the proceeding, we need not construe any claim terms and phrases. *See, e.g., Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

B. The Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill at the time of the alleged invention “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. 8 (citing Letts Decl. ¶¶ 127–132). At this stage, Patent Owner does respond to this contention.

For the purpose of institution, we adopt Petitioner’s definition of a person of ordinary skill in the art because it is consistent with the level of skill reflected by the ’015 patent specification and the asserted prior art.

C. Principles of Law

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the 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) if in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).⁵

⁵ Petitioner does not present evidence related to secondary considerations.

D. Description of the Principal Prior Art

1. Baig (Ex. 1007)

Baig is directed to an apparatus and a method for providing services for mobile devices which are in communication with local area network wireless access points. *See* Ex. 1007 ¶ 2.

Figure 1 of Baig is reproduced below.

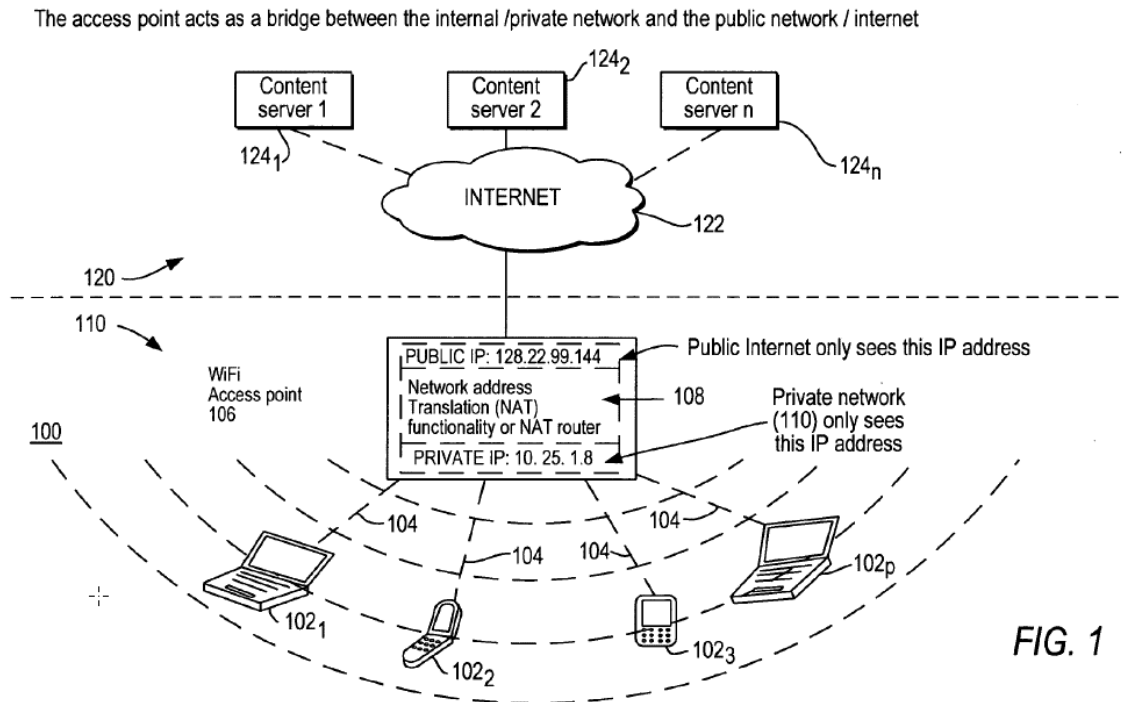


Figure 1 depicts a block diagram of communications network 100, including public wireless hotspot 110 communicatively coupled to public network 120 via access point 106. Ex. 1007 ¶¶ 13, 42. Public network 120 includes content servers 124₁, 124₂, 124_n that store and host information from websites. *Id.* ¶ 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. Ex. 1007 ¶ 43. Access point 106 uses a unique public IP address that 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. *See id.* Access point 106 interacts with public network 120 having a public IP address that 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 identifies wireless users within physical vicinity of each other at a WiFi hotspot. Ex. 1007 ¶¶ 38, 52. Once a VCSP at a physical location (i.e., a hotspot) is created, the users can potentially interact physically or non-physically with each other. *Id.* ¶ 38. 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, 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.

Figure 6 of Baig is reproduced below.

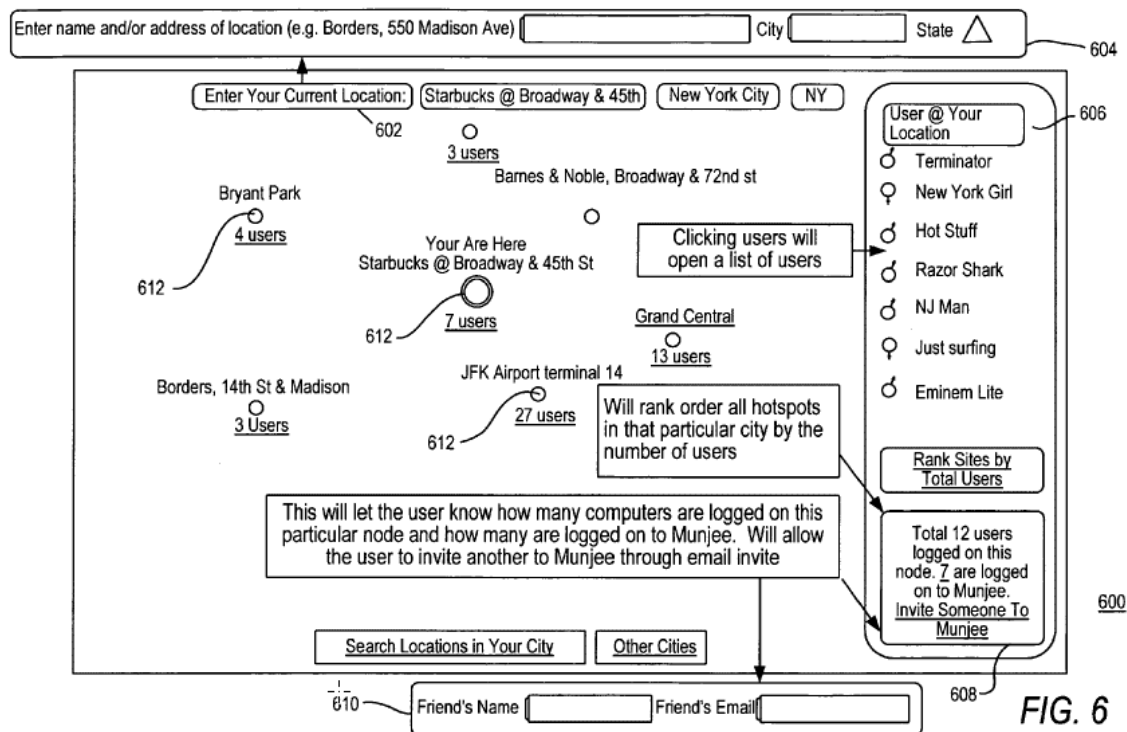


Figure 6 depicts a graphical user interface displaying a webpage. Ex. 1007 ¶¶ 18, 75. The webpage includes list 606 of other users by username (e.g., “Terminator,” “Just surfing”) at the present hotspot. *Id.* ¶ 76. List 606 includes gender symbols for each username. *Id.* at Fig. 6.

2. Zwicky (Ex. 1012)

Zwicky is a textbook titled “Building Internet Firewalls,” that includes a section disclosing Network Address Translation (NAT). Ex. 1012, 22, 33–

37.⁶ Zwicky discloses that NAT allows a network to use one set of network addresses internally and a different set of addresses with dealing with external networks. *Id.* at 33. When an internal machine sends a packet to the outside, a NAT system modifies the source address of the packet to make the packet look like it is coming from a valid address. *Id.* at 34. 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 (PAT). *Id.* at 34–35, Fig. 5-4. The use of port mapping enables multiple internal machines to use the same external address. *Id.* at 35. 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 35–36.

3. *Satapati (Ex. 1006)*

Satapati is directed to a method for transparently sharing at least one Internet Protocol version 4 (IPv4) address among a plurality of hosts, where at least a first host uses IPv4 protocol and at least a second host uses Internet Protocol version 6 (IPv6) protocol. Ex. 1006, Abstract. Satapati discloses a system that allows a network address translator to provide network address translation between a private IPv4 network with a plurality of IPv4 users and a public network such as the Internet, which is connected to a plurality of web servers using IPv4 protocol. *Id.* ¶ 2. The network address translator is

⁶ Unless otherwise specified, citations to exhibits use the page numbers assigned by the parties and not the original page numbers.

able to provide a plurality of users Internet access using a small number of IPv4 addresses. *Id.* The network address translator uses port address translation (PAT) to multiplex a single Internet public address by port number, thereby providing user definable ports 1025–65,535. *Id.* ¶ 4.

4. Banga507 and Banga609

These references disclose systems for determining directed media for a user. Users can be identified and their preferences determined and tracked through a user's act of logging onto a network or obtaining network service through a service provider. Ex. 1015 ¶ 22; Ex. 1016 ¶ 22. An exemplary CR (customer relations) server is configured to identify any number of network access devices seeking access to the network, and to generate a user profile for each network access device. Ex. 1015 ¶ 28; Ex. 1016 ¶ 28. The user profile may be used to build and develop relationships between users of the network access devices and the owners or agents of products and/or services. Ex. 1015 ¶ 28; Ex. 1016 ¶ 28. The CR server may be coupled to the network access device, the service provider, or the network. Ex. 1015 ¶ 28; Ex. 1016 ¶ 28. The CR server may also be configured to generate a user preference based on the user profile. Ex. 1016 ¶ 40.

5. McFarland

McFarland relates to electronic catalog systems that include functionality for users to create lists of items they wish to rent, obtain as gifts, or otherwise acquire. Ex. 1018, 1:14–16. McFarland discloses providing recommendations to group members based on preferences of other group members. *Id.* at Abstract, 3:53–64, 4:15–19. McFarland improves recommendations provided to individual group members based on group

preferences determined from other group members' preferences. *Id.* at Abstract.

E. Analysis of Independent Claim 1

For the reasons that follow, we are persuaded that, for the purpose of institution, Petitioner establishes sufficiently that the combination of Baig, Banga507, Banga690, and McFarland teaches or suggests each of the limitations recited in independent claim 1, and that it would have been obvious to combine the teachings of those references. *See* Pet. 9–38. Petitioner asserts that “[a person of ordinary skill] would have been motivated and would have found it obvious to incorporate these teachings of Banga507, Banga690, and McFarland in Baig’s system to select targeted advertisements for groups of users demonstrating a pattern of accessing the Internet from a shared AP (e.g., at a coffee shop every Sunday) based on the group members’ collective preferences because doing so would have allowed Baig’s modified system to advantageously improve the relevance of the targeted advertisements provided to the group members.” *Id.* at 12 (citing Ex. 1007 ¶ 39; Ex. 1015 ¶ 54; Lett Decl. ¶¶ 142–146). Petitioner presents an element-by-element analysis supported by expert testimony. *Id.* at 15–30; Lett Decl. ¶¶ 151–237. At this stage, Patent Owner does not address the merits of Petitioner’s challenge.

1. *1[A]: “A computer system comprising at least one hardware server computer, wherein the computer system is programmed and connected to perform a method of using common IP addresses to identify associations among multiple*

electronic devices and using an identified association to cause cross-device action, the method comprising:”

Petitioner asserts that this combination of references teaches this limitation based on the disclosure of a computer system with CR server 150 and one or more mobile devices 102₁, 102₂, 102₃ and content servers 124₁, 124₂, 124_n. Pet. 16 (reproducing Ex. 1007, Fig. 1 (with annotations)). Petitioner explains that “[t]he resulting system would be ‘programmed and connected to perform a method of using common IP addresses to identify associations among multiple electronic devices and using an identified association to cause cross-device action.’” *Id.* at 16 (citing Lett Decl. ¶ 155).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests the preamble recitation.⁷

2. [1B]: “(a) with the computer system, creating an electronic database containing a multitude of associations, each indicating an association between device identifiers of two or more Internet-accessing electronic devices of a multitude of Internet-accessing electronic devices, wherein:”

Petitioner demonstrates that this combination of references teaches this limitation. Pet. 16–20. Petitioner explains that “Baig’s modified system . . . has a CR server and multiple devices . . . connected to the Internet via a shared AP.” *Id.* at 17 (citing Ex. 1007 ¶¶ 38, 42–43, Fig. 1; Lett Decl. ¶ 158). Further, the CR server “would have recorded each time a device accessed the network thus creating a history of that device’s network access.” *Id.* Still further, “[t]hat CR server would have included a profile

⁷ We do not decide whether the preamble recitation is limiting because Petitioner establishes a reasonable likelihood that the cited art teaches it.

engine like Banga507's that generates user profiles using stored network access records, device identifiers, and related network access information plus storage for storing the profiles." *Id.* Petitioner asserts that "[a]dding a CR server like Banga507's and the network access reporting functionality to Baig's system would have been obvious." *Id.* at 18 (citing Lett Decl. ¶¶ 175–182). In sum, such a combination "would have created profiles indicating relationships between Baig's devices based on historical network access information and access patterns" and "also would have targeted advertisements to devices identified in those profiles." *Id.* at 18–19 (citing Ex. 1015 ¶¶ 28, 45, 49; Lett Decl. ¶ 175).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests this limitation.

3. [1C]: "(i) each of the associations is determined using stored data relating to Internet access by various of the multitude of devices, the stored data comprising (A) a device identifier of one of the Internet-accessing devices, (B) an IP address through which the one of the devices accessed the Internet, and (C) a timestamp identifying when the one of the devices accessed the Internet;"

Petitioner asserts that the CR server would have received network access information including device identifiers and used the stored information to create user group profiles that associate device identifiers ("each of the associations is determined using stored data relating to Internet access by various of the multitude of devices") as disclosed in Banga507. Pet. 20–21 (citing Ex. 1015 ¶¶ 36, 54, 74; Lett Decl. ¶ 185).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests this limitation.

4. [1D]: “(ii) at least some of the associations indicate association between at least two devices of the two or more Internet accessing electronic devices, which association is determined by using the stored data to determine that both of the at least two devices have accessed the Internet via a common IP address at respective times satisfying predetermined time-relation criterion;”

Petitioner asserts that “[i]t would have been obvious for Baig’s modified system to associate users having a pattern of accessing the same AP at the same day and time.” Pet. 21 (citing Lett Decl. ¶ 189). Further, “the CR server in Baig’s modified system would have created profiles using device identifiers and historical access information per Banga507.” *Id.* (citing Ex. 1015 ¶¶ 43, 45; Lett Decl. ¶ 189). Petitioner asserts that “[t]he CR server would have used historical network access information to identify network access patterns (e.g., regular Internet access from a particular coffee shop) and to associate devices by, e.g., including them in a profile for devices exhibiting that pattern.” *Id.* (citing Ex. 1015 ¶¶ 44, 47, 54, Figs. 3, 4; Lett Decl. ¶ 189). Also, “[t]he associations between device identifiers indicated in the profile . . . would have been determined using the network access information received from the common AP, per Banga507 and Banga690.” *Id.* at 23 (citing Ex. 1015 ¶¶ 29, 36, 37, 54, 74; Ex. 1016 ¶ 46; Lett Decl. ¶ 194).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests this limitation.

5. *1E*]: “(iii) at least some of the associations indicate association between at least two devices of the two or more Internet accessing electronic devices, which association is determined without use of personally identifiable information; and”

Petitioner asserts that “Banga507 contemplates storing an ‘anonymous device identifier’ and, more specifically, a MAC address, which the ’015 Patent excludes from ‘personally identifiable information.’” Pet. 24 (citing Ex. 1015 ¶ 25; Ex. 1001, 15:30–37; Lett Decl. ¶¶ 199–200). Further, “[b]oth Baig and Banga507 contemplate preserving users’ anonymity.” *Id.* (citing Ex. 1007 ¶ 68; Ex. 1015 ¶ 46). Finally, “[i]t thus would have been obvious to use, in Baig-Banga507-Banga690-McFarland, anonymous device identifiers (e.g., MAC addresses) in the profile for devices exhibiting a pattern of connecting to the same AP.” *Id.* (citing Lett Decl. ¶¶ 201–202).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests this limitation.

6. *[1F]*: “(iv) the computer system determining the associations accesses the Internet without using any of the common IP addresses of the associations identified in part (ii); and”

Petitioner asserts that in “in Baig’s modified system . . . the CR server would not have connected to the Internet via the AP and thus would have used a different IP address than the AP that provides devices 102 with Internet access.” Pet. 25 (citing Ex. 1007 ¶ 43, Fig. 1; Ex. 1015, Fig. 2; Lett Decl. ¶ 205).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests this limitation.

7. [1G]: “(b) when the computer system and a first device identified in a first association are in communication with one another, with the computer system using a device identifier of the first device and user profile information associated with a device identifier of a second device identified in the first association to cause an automatic action to be taken with respect to the first device, wherein:”

Petitioner asserts that in this combination of references “the claimed ‘automatic action’ is automatically providing a targeted advertisement to a device 102 based on that device’s association with another device via a profile with their device identifiers, and using the profile information for that other device as discussed for [1B]-[1D].” Pet. 25–26 (citing Lett Decl. ¶ 208). Further, “[i]t would have been obvious to enhance Baig’s profile-based targeted advertising by including, in Baig’s modified system, automatic targeted advertisements based on users’ preferences, historic network access, and network access patterns per Banga507.” *Id.* at 26 (citing Ex. 1002 ¶ 214). Petitioner explains further that “Baig and Banga507 also contemplate automatically providing targeted advertisements to user groups.” *Id.* at 27 (citing Ex. 1007 ¶¶ 61, 93; Ex. 1015 ¶ 45; Lett Decl. ¶¶ 216–217). Finally, Petitioner asserts that “McFarland also discloses providing recommendations to group members based on preferences of other group members.” *Id.* (citing Ex. 1018, Abstract, 3:53–64, 4:15–19).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests this limitation.

8. [1H]: “(i) the first association is one of the associations identified in part (a)(ii); and”

Petitioner contends that “[t]he association between device identifiers in Baig’s modified system would have been one of the associations indicated in the profile created for those devices based on observing that they connect to the AP according to the same network access pattern (‘the first association is one of the associations identified in part (a)(ii)’).” Pet. 29–30 (citing Lett Decl. ¶ 231).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests this limitation.

9. [1I]: “(ii) the first association was stored in the electronic database described in part (a) prior to the computer system and the first device being in communication with one another as described in part (b).”

Petitioner asserts that “[i]n Baig’s modified system, the association between device identifiers would have been stored before one of the devices connected to the AP and received a targeted advertisement.” Pet. 30 (citing Lett Decl. ¶ 235). Petitioner explains that “[t]he profile associating the identifiers of devices exhibiting the same network access pattern (e.g., every Sunday at 10am) would have been created and stored before a subsequent iteration of that pattern (e.g., on a subsequent Sunday) when one of the devices next connected to Baig’s system and received the targeted advertisement.” *Id.* (citing Ex. 1016 ¶¶ 46, 58; Lett Decl. ¶ 236).

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests this limitation.

F. Analysis of Independent Claim 14

The preamble of claim 14 recites “[a]n article comprising a tangible data storage medium that is not a transitory propagating signal encoding computer-readable instructions that, when applied to a computer system comprising at least one hardware server computer, instruct the computer system to perform a method comprising.” The body of the claim recites method steps that track the language of claim 1. Petitioner contends that claim 14 is “substantially the same as claim 1.” Pet. 38. Referring to its analysis of claim 1, Petitioner explains that “Baig’s modified system, having a CR server, would have included memory with instructions that, when executed, perform the method above.” *Id.*

At this stage of the proceeding, we determine Petitioner shows sufficiently that this combination of references teaches or suggests the limitations of this claim.

G. Remaining Challenges to Patentability

As set forth above, after considering the evidence and arguments presented in the Petition, we determine that Petitioner demonstrates a reasonable likelihood of prevailing in showing that at least independent claims 1 and 14 are unpatentable under 35 U.S.C. § 103 as obvious over Baig, Banga507, Banga609, and McFarland. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Accordingly, we institute an *inter partes* review of all of the challenged claims on all grounds identified in the Petition, including the patentability challenges to claims 1 and 14 based on Baig, Satapati, and

Damick, and Baig, Zwicky, and Damick. *See SAS Inst*, 138 S. Ct. 1348; Guidance on the Impact of SAS on AIA Trial Proceedings (Apr. 26, 2018).⁸

H. Alleged Lack of Particularity

Patent Owner contends that the Petition should be denied because it “violate[s] the ‘particularity requirement of 35 U.S.C. § 312(A)(3).” Prelim. Resp. 8–13. Patent Owner cites the Petition’s eleven grounds based on nine “express” prior art references and 33 other “shadow”⁹ references and exhibits. *Id.* at 10–11. Patent Owner asserts that “it is unclear which references Petitioner intends to be (or not to be) part of each of the grounds in its Petition.” *Id.* at 12. Patent Owner complains about the length of the petition and accompanying declarations. *Id.* (“The Petition itself is seventy-nine pages long (13,850 words), and attaches fifty-six exhibits. One of those exhibits is a 349 page declaration from one of Petitioner’s experts.”) (citations omitted). Patent Owner cites the Board’s informative decision in *Adaptics Ltd. v. Perfect Co.*, IPR2018-01596, Paper 20 at 24 (PTAB Mar. 6, 2019).

We decline to exercise our discretion to deny this Petition for lack of particularity. Patent Owner’s reliance on *Adaptics* is misplaced. *Adaptics* is distinguishable from this case. In *Adaptics*, the petitioner’s use of “and/or” in its challenges yielded “hundreds of possible combinations.” *Adaptics*, Paper 20 at 19. In addition, the petitioner in *Adaptics* asserted a “catch-all” ground asserting obviousness as an alternative if its extensive anticipation

⁸ Available at <https://www.uspto.gov/patents/ptab/trials/guidance-impact-sas-aia-trial>.

⁹ Patent Owner explains that these are exhibits “attached to the Petition and expressly cited and relied upon by Petitioner’s experts.” Prelim. Resp. 11.

grounds failed. *Id.* at 14. In finding that the petition lacked sufficient particularity, the Board cited this “catch-all” ground as “the worst offender.” *Id.* at 18.

While we agree that the Petition in this case could have been more concise, we disagree that it is so “voluminous and excessive” as to warrant denial for lack of sufficient particularity. *See Adaptics*, Paper 20 at 18.

III. CONCLUSION

For the foregoing reasons, we determine there is a reasonable likelihood that Petitioner would prevail in showing at least one of the challenged claims of the ’015 patent is unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–26 of the ’015 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the ’015 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

IPR2024-00419
Patent 11,564,015 B2

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