

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC., ROKU, INC., and
SAMSUNG ELECTRONICS CO., LTD.,
Petitioners,

v.

ALMONDNET, INC. and INTENT IQ, LLC,
Patent Owners.

Case IPR2023-01281¹
Patent No. 10,715,878 B2

**PETITIONER'S REPLY IN SUPPORT OF ITS
PETITION FOR *INTER PARTES* REVIEW**

¹ Roku, Inc. filed a petition in IPR2024-00666 and was joined as petitioner in this proceeding. Samsung Electronics, Co., Ltd. filed a petition in IPR2024-00701 and was joined as a petitioner in this proceeding.

Table of Contents

	Page
I. INTRODUCTION	1
II. PATENT OWNER’S “ASSOCIATION” ARGUMENT FAILS.....	2
A. Baig Places Devices Into Vicinity-Based Communities.....	2
B. Baig Determines an Association Between Device Identifiers.....	3
C. The Claimed Association Extends to Cookies Under the Proposed Baig-Laidlaw Combination.	6
III. PATENT OWNER’S “PREDETERMINED PERIOD OF TIME” ARGUMENT SHOULD ALSO BE REJECTED.....	10
A. Claim 1 Does Not Require the Computer System to Have Actual Knowledge of the Claimed “Predetermined Period of Time.”	11
B. The Proposed Combination Renders Claim 1 Obvious Even Under Patent Owner’s Interpretation of Claim 1(b).....	14
IV. PATENT OWNER’S ARGUMENTS ABOUT CLAIM 6 SHOULD BE REJECTED.....	19
A. The Proposed Combination Provides a Consistent Mapping of the Claimed “Automatic Action.”	20
B. The Proposed Combination Selects Advertisements, Not Just Advertisers.....	21
V. CONCLUSION	24

I. INTRODUCTION

Patent Owner's response advances two primary arguments against independent claim 1, but neither argument provides any basis to overcome the instituted grounds. Patent Owner's first argument is that the proposed combination only determines an association between users not the claimed device identifiers – an argument based on a mischaracterization of the prior art. The Baig-Laidlaw combination plainly discloses an association between device identifiers, which is used to determine that the underlying mobile devices are logged-in and part of the same vicinity-based community. The claim requires nothing more.

Second, Patent Owner recycles its failed pre-institution argument that the proposed Baig-Laidlaw-Sitaraman combination does not determine that the mobile devices in Baig have “separately accessed the Internet... during a predetermined period of time via a common IP address,” as recited in claim 1(b). This argument is based on the false premise that claim 1(b) in all cases requires that the computer system have separate knowledge of the claimed “predetermined period of time.” But under the proposed combination, which uses dynamic IP addresses with DHCP lease times, no such separate requirement exists. And even under Patent Owner's reading of the claim language, the system in the proposed combination would have had knowledge of DHCP lease times because Baig makes clear it would have been operated by an Internet Service Provider (ISP).

Third, Patent Owner presents a series of arguments directed to claim 6 that mischaracterize the prior art and ignore the theory articulated in the Petition. For the reasons set forth below and in the Petition, the Board should find the challenged claims unpatentable.

II. PATENT OWNER’S “ASSOCIATION” ARGUMENT FAILS.

Patent Owner first argues that the Petition did not establish that the proposed combination “**determin[es] an association between device identifiers of two or more Internet-accessing electronic devices.**” The gist of Patent Owner’s argument is that the proposed combination determines an association between users or devices, not device identifiers. Patent Owner’s arguments should be rejected.

A. Baig Places Devices Into Vicinity-Based Communities.

Patent Owner’s argument starts from the premise that “Baig does not place *devices* into vicinity based communities; rather, Baig places *users* into vicinity-based communities.” (Response, 9 (citing EX2001, ¶¶42-43) (bold italics in original).) This argument is nonsense. Vicinity-based communities in Baig are virtual communities created by a remote server, accessible by users over the Internet only through their mobile devices. Baig obviously places users’ devices – not actual users – into those communities, a fact made clear throughout Baig. For example, Baig explains that the system creates “vicinity-based communities over the Internet... for wireless mobile devices of end-users that have accessed the VSCP via

wireless access point at a wireless hotspot.” (Baig, ¶0038 (emphasis added).) Baig further explains that “[t]he server **224** of the VSCP **202** includes programming which determines that WiFi mobile devices accessing a single hotspot are connected to the same WiFi access point, and therefore, must be in close vicinity to one-another. Accordingly, **all devices 102 originating from the same WiFi access point are clustered in the same vicinity-based group.**” (Baig, ¶0063 (emphasis added).)

Patent Owner seizes on statements in Baig that more casually refer to “users” being placed into vicinity-based communities, but these are obviously a shorthand for the devices the users utilized to access the server over the Internet. (EX1022, ¶¶5-6.) For example, Paragraph 0056 of Baig cited by Patent Owner states that “[a]t step **306**, the server **224** identifies all the *users* who have logged in from a common hot spot as having the same access point IP address.” (Response at 9 (quoting Baig, ¶0056) (bold italics added by Patent Owner).) The word “users” here plainly refers to their mobile devices because users do not have IP addresses (or cookies) – their devices do. (EX1022, ¶¶6-7; Baig, *e.g.*, ¶0044.)

B. Baig Determines an Association Between Device Identifiers.

Patent Owner next argues that “an association between *devices*” does not establish “an association between corresponding device *identifiers*[.]” (Response, 10 (bold italics in original).) But as the Petition explained, the device identifiers are associated with each other because they are used to determine that mobile devices

are currently logged-in and connected through the same wireless access point via the same access point IP address. (Petition, 18-20; EX1002, ¶¶83-84, 95; EX1022, ¶8.) Baig uses this association, as the Petition explained, to place these mobile devices into the same vicinity-based community. (Petition, 15-16, 19-20; EX1002, ¶¶83-84; EX1022, ¶8.) Accordingly, to the extent the content server in Baig determines an association between devices, this association is based on the underlying association between their device identifiers.

This is consistent with the '878 patent, which describes an embodiment in which the Central Ad Server (CAS) identifies all devices that are using the same IP address at the same date and time. ('878, 18:57-19:5.) The written description states that, once these devices are identified, “an association or link is created among the devices....” (*Id.* (emphasis added).) Patent Owner’s attempt to draw a distinction between device identifiers and the devices to which they belong is without merit.

Patent Owner relies on a non-precedential decision in *Yahoo! Inc v. Intent IQ, Inc.*, IPR2017-01299 (October 31, 2007) (**EX1024**), that involved a different patent, different claims, and different prior art. The *Yahoo!* decision has no bearing here, and moreover, illustrates the flaws with Patent Owner’s argument.

In the portions of *Yahoo!* cited by Patent Owner, the petitioner argued that the device identifiers in the prior art corresponded to the make, type, or model of the computer, cell phone, or television. (Response, 11; EX1024, 19.) Patent Owner

seizes on a statement in *Yahoo!* that “[a]lthough **Petitioner demonstrates that Julia teaches an electronic association between devices...** [the claim] requires an electronic association between the first device *identifier* and the second device *identifier*.” (Response, 11 (quoting EX1024, 18-19) (bold, italics, and alteration added by Patent Owner).) However, Patent Owner’s analysis ignores the Board’s actual analysis. See *Fromson v. Western Litho Plate & Supply Co.*, 853 F.2d 1568, 1578 (Fed. Cir. 1988) (“Cases should not be cited for mere words. What counts is what the court did in a cited case.”), *overruled on other grounds Knorr-Bremse v. Dana Corp.*, 383 F.3d 1337 (Fed. Cir. 2004).

The Board in *Yahoo!* acknowledged the petitioner’s argument that the devices were associated with each other because they were interconnected (for example, through a home network). (EX1024, 17-18.) But the petitioner failed to establish any relationship between the interconnection of the devices and their asserted device identifiers (*i.e.*, make, type, or model of the device). (*Id.* at 18-19.) In simpler terms, the petitioner appears to have argued that the device identifiers were associated simply because the underlying devices were associated.

The Baig-Laidlaw combination presents the reverse theory – the mobile devices are associated only because of the association between their device identifiers. Unlike the Baig-Laidlaw combination, there was no suggestion in *Yahoo!* that the makes, types, or models of user devices were used to determine that

those devices were part of a group of devices. In contrast, the Baig-Laidlaw combination depends on the device identifiers to determine that the underlying mobile devices are logged-in and part of the same vicinity-based community, as explained above and in the Petition. (Petition, *e.g.*, 18-20, 27-30.)

C. The Claimed Association Extends to Cookies Under the Proposed Baig-Laidlaw Combination.

Patent Owner does not dispute that cookies were well-known and that it would have been obvious to combine Baig with Laidlaw, and to adapt the system of Baig to use cookies in the manner described in the Petition. Patent Owner instead argues that “using cookies to place devices into a vicinity-based community does not equate to ‘determining an association between’ the cookies.” (Response, 12.) Patent Owner’s argument is largely an extension of its overall argument that the proposed combination only determines an association between devices and not device identifiers, which fails for the reasons provided above.

Patent Owner’s argument relies almost exclusively on an analogy formulated by its technical expert in which students apply to a college using social security numbers and are sorted into dorm rooms. (Response, 12-13 (citing EX2001, ¶¶50-51).) Patent Owner argues that “[a] determination that two students are assigned to the same dorm room may equate to a determination those two students are associated together,” but “it is *not* a determination that their social security numbers have been associated together,” because the dorm room assignment system does not use the

social security numbers. (*Id.* (bold italics in original).) One problem with this analogy is that Patent Owner never identifies what the “social security numbers” correspond to in the Baig-Laidlaw combination. Patent Owner’s expert was asked this several times at his deposition but would not answer. (EX1023, 44:6-47:14.)

Nevertheless, if it is assumed that the “social security numbers” in Patent Owner’s analogy represent the cookies under the Baig-Laidlaw combination, the analogy fails for several reasons. A student may not need to present their social security number each time to gain entry into their dorm room, but under the Baig-Laidlaw combination, a mobile device must present the cookie to the content server each time it attempts to access the server. This is a fundamental characteristic of cookies. (Petition, 20-21; EX1002, ¶¶89-90.) Laidlaw explains that a cookie is a piece of information assigned to a client computer, “and which the client system sends back to the web server with each subsequent request.” (Petition, 21 (quoting Laidlaw, ¶0006) (emphasis added).) The Petition further explained that, under the Baig-Laidlaw combination, the system would have used the cookie to identify the mobile device and determine whether the mobile device is logged-in. (Petition, 28-29; EX1002, ¶¶105-107; EX1022, ¶15.) Transmission of the cookie with each request is essential to overcome the “stateless” nature of the Web, which would otherwise have prevented the system from remembering prior requests by the mobile

device and thus prevented the system from being able to identify the mobile device and recognize that it is logged-in. (EX1002, ¶¶90, 105.)

Patent Owner's analogy also overlooks the fact that cookies are critical to placing mobile devices into vicinity-based communities under the Baig-Laidlaw combination. Baig repeatedly states that identifying users who are in a vicinity-based community depends on the ability to identify devices connected through the same access point and who are currently logged-in to the content server website. (Baig, *e.g.*, ¶¶0056 (“At step **306**, the server **224** identifies all the users who have logged in from a common hot spot as having the same access point IP address.”), 0059 (“Thus, users accessing a hotspot and who have logged into the website of the VCSP **202** can receive and participate in the services offered by the VCSP **202**, as well as communicate with each other (e.g., chat room).”) (emphasis added to all); *see also id.*, ¶¶0069, 0076-0078.) As explained in the Petition, therefore, “the content server under the proposed combination” determines the claimed association “because it uses the cookie assigned to each device as being logged into the server, in order to place it into a vicinity-based community.” (Petition, 19; *see also* EX1002, ¶84; EX1022, ¶13.) Membership in a vicinity-based community in Baig therefore depends **both** on the common IP address among mobile devices, **and** on those devices being logged-into the server. The cookies of devices in a vicinity-based community, therefore, are associated with each other by virtue of belonging to

mobile devices in proximity to each other that are logged into the content server from a common IP address, and thus, placed into the same vicinity-based community or group. (Petition, 13-14, 18-20.)

Patent Owner next argues that “the Petition provides no evidence of the users being identified by anything other than their respective usernames for purposes of placing those users into a vicinity-based community.” (Response, 13.) But this argument focuses entirely on Baig and ignores the proposed combination with Laidlaw. *See, e.g., Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1050 (Fed. Cir. 2019) (“A finding of obviousness... cannot be overcome ‘by attacking references individually where the rejection is based upon the teachings of a combination of references.’”) (citation omitted). This argument overlooks the fact that, under the proposed Baig-Laidlaw combination, the system would have used the cookie to identify a mobile device accessing the server and to determine whether the device is currently logged-in – prerequisites to placement in a vicinity-based community. (Petition, 19-20, 28-29; EX1002, ¶¶105-107.) Moreover, with respect to the username in Baig, the Petition further explained that it would have been obvious for the server in the Baig-Laidlaw combination to have used the cookie “to ‘remember’ the user name and password of a user – a classic and textbook case for cookies that was well-known to skilled artisans.” (Petition, 28 (emphasis added); *see also* EX1002, ¶106.) Thus, to the extent the system in Baig relies on the username to

identify users, it would have obtained that username by using the cookie assigned to mobile device that is transmitted to the server with each request.

III. PATENT OWNER’S “PREDETERMINED PERIOD OF TIME” ARGUMENT SHOULD ALSO BE REJECTED.

Patent Owner next recycles its failed pre-institution argument that the proposed combination does not determine that the mobile devices in Baig have “separately accessed the Internet... during a predetermined period of time via a common IP address,” as recited in claim 1(b). Patent Owner concedes in its Response that the DHCP lease time qualifies as a “predetermined period of time” for purposes of claim 1(b). (Response, 20 n.2 (“Patent Owner does not contest, as the ’878 Patent makes clear, that a DHCP lease period can be a ‘predetermined period of time.’”).) Patent Owner nevertheless argues that the content server in Baig would not have had information about the DHCP lease period.

Patent Owner’s argument fails for two reasons. First, the argument is based on the false premise that claim 1(b) in all cases requires that the computer system have actual knowledge of the claimed “predetermined period of time.” (Response, 16.) But in the proposed combination and in the ’878 cited by Patent Owner, the claimed determination can take place without such knowledge. Second, Patent Owner’s argument is based on the factual assertion that the content server in Baig is “a typical server hosting a website” and not an Internet Service Provider (ISP) that would have had knowledge of DHCP lease times. (Response, 17; EX2001, ¶¶60-

63.) This argument ignores multiple disclosures in Baig that make clear that content server is in fact operated by an ISP. Accordingly, even if the claim were interpreted to require the computer system to have knowledge of DHCP lease times, this would still have been obvious under the proposed combination.

A. Claim 1 Does Not Require the Computer System to Have Actual Knowledge of the Claimed “Predetermined Period of Time.”

Claim 1(b) does not in all cases require the computer system performing the determining step to have actual knowledge of the claimed predetermined period of time. The claim language requires that a determination be made that a particular condition exists, but that determination can be made without the computer system having knowledge of the claimed predetermined period of time. (EX1022, ¶19.) In the context of the proposed combination, determining that access by the two or more electronic devices occurred “**during a predetermined period of time**” is subsumed by the computers system’s determination that the access occurred “**via a common IP address.**” This is because the predetermined period of time under the proposed combination is the lease time for the dynamic IP address assigned using DHCP, which would have had an expiration date and time. (Petition, 31-32, 37-38; EX1002, ¶¶112-113, 116.) Once the IP address expires, the two or more mobile devices in Baig could no longer communicate with the server through the access point via that IP address. (Petition, 37-38 (“Once the lease expires the IP address can be ‘recycled’ and given to another machine.”)) (quoting Sitaraman, 3:49-51)); *see also* ’878, 4:22-

26 (“The assignment of the IP address usually expires after a predetermined period of time, at which point the DHCP client and server renegotiate a new IP address from the DHCP’s server’s defined pool of IP addresses.”); EX1022, ¶19.)

Accordingly, to the extent the two or more mobile devices in Baig are capable of accessing the server in Baig through the access point using the common dynamic IP address assigned using DHCP (“**via a common IP address**”), that access occurred during the DHCP lease time (“**a predetermined period of time**”) because the mobile devices would not otherwise have been able to reach the server via that IP address. (EX1022, ¶19.) In other words, when the system determines that two or more mobile devices have accessed the Internet “**via a common IP address**,” that also determines that the access occurred during a DHCP lease time. Moreover, it does not matter whether the system knows the precise period of the DHCP lease time (and the claim imposes no such requirement) – because the common IP address was dynamically assigned using DHCP under the proposed combination, the access through that IP address by the two or more mobile devices is sufficient to have determined that the access occurred during “**a predetermined period of time.**” The use of DHCP-assigned IP addresses is part of the design of the system itself under the proposed combination, applicable to the access point and all mobile devices through which it is connected. (Petition, 32-34; EX1002, ¶114; EX1022, ¶20.)

This is consistent with the written description of the '878 patent and the very embodiment cited by Patent Owner. (Response, 5 (citing '878, 16:12-48).) The Institution Decision correctly noted, in analyzing this same embodiment, that “Patent Owner’s cited portion of the '878 specification... support Petitioner’s assertions.” (Institution Decision, 19.) Indeed, in the embodiment at column 16, lines 12-48 cited by Patent Owner, the Central Ad Server (CAS) **40** does not have knowledge of lease times for the assigned IP addresses. Patent Owner cites no embodiment in which the determination in claim 1(b) is performed with knowledge, or taking into consideration, a predetermined period of time.

The embodiment cited by Patent Owner instead explains that the CAS **40** periodically receives information about IP addresses and the dates and times when they were used. ('878, 16:22-27, 16:30-37.) But that information merely includes particular times the IP address was used in the past. A particular point in time (or multiple points in time) when the IP address happened to have been used in the past – which is what CAS **40** receives – is not a “period of time” because it tells CAS **40** nothing about any period after any particular point, such as how long the IP address will remain valid. (EX1022, ¶22.) This is further confirmed by the statement in the '878 patent quoted by Patent Owner, describing delivery of an advertisement “whenever it is found that the STB was connected to a modem that was assigned an IP address at a time and date when the online site was accessed from that IP address.”

(’878, 16:43-45 (emphasis added) (quoted in Response, 5).) Patent Owner provides no explanation as to how “a time and date when the online site was accessed” constitutes a “**period of time.**” Nor was a particular date and time of prior access “**predetermined,**” as it was based on when the address happened to have been used. (EX1022, ¶22.) Patent Owner also does not explain how this embodiment, even if it disclosed a period of time, shows that CAS **40** uses that period of time in making the claimed determination. This embodiment cited by Patent Owner discloses, at most, determining access by devices via a common IP address – without regard to whether that access occurred during a predetermined period of time.

The proposed combination does not present a case in which the “predetermined period of time” was mapped to a time period having no relationship with access via the common IP address. This is not a case, for example, in which the predetermined period of time was mapped to Lent, Passover, or Ramadan, with no relationship to a device’s ability to connect to a server. Under the proposed combination, two mobile devices communicating through an access point via a common DHCP-assigned IP address cannot reach the computer system in Baig unless they do so during the lease period, as explained. (EX1022, ¶¶24-26.)

B. The Proposed Combination Renders Claim 1 Obvious Even Under Patent Owner’s Interpretation of Claim 1(b).

Even assuming claim 1(b) requires the computer system performing the determining step to have knowledge of the claimed predetermined period of time,

the claim would still be satisfied. As explained in the Petition, a dynamic IP address is generally assigned by a DHCP server. (Petition, 31-32; EX1002, ¶¶112-113.) Nothing in the Petition requires that the DHCP server be separate from or unaffiliated with the computer system in Baig. As the Board correctly observed in the Institution Decision, it would have been obvious that the proposed combination would have “introduce[d] the need for the system to be aware of the lease time in which the dynamic addresses would be valid.” (Institution Decision, 21.)

As the Petition explained, an Internet Service Provider (ISP) uses a DHCP server to dynamically assign IP addresses to clients upon request. (Petition, 31-32; EX1002, ¶¶112-113.) Both experts agree on this point. (EX1002, ¶¶112-113; EX1022, ¶¶60-63.) This is also consistent with the '878 patent's description of prior art DHCP techniques. ('878, 4:36-39 (“A computer can also be used as a DHCP server. Internet Service Providers (ISPs) generally use DHCP to assign individual IP addresses to subscribers.”).)

Patent Owner's argument that the computer system in Baig would not have knowledge of DHCP lease times depends entirely on the factual assertion that the computer system in Baig is not an ISP. (Response, 16-17; EX2021, ¶¶60-63.) As Patent Owner's expert now asserts in his declaration:

A POSITA would understand that DHCP lease periods for an access point would have been determined by an internet service provider (“ISP”), and Baig's content server is not an ISP and

would have no reason to use data from ISPs in running its content server (and would have also had no ability to obtain information from ISPs regarding access point lease duration).

(EX2021, ¶60; *see also* Response, 17 (paraphrasing this argument).) Patent Owner and its expert provide no citation to or analysis of Baig in coming to this conclusion.

Baig refutes this assertion by confirming that the computer system in fact does belong to an ISP. Baig repeatedly states that the vicinity-based community service provided by the system is part of a “public network service provider,” or “service provider.” (Baig, *e.g.* Abstract (“A method and apparatus for providing vicinity-based community services at a wireless access location by a public network service provider.”), ¶¶0006 (“... allowing end-users accessing the public network service provider from the wireless access point to connect to other users in their vicinity.”), 0007 (“Each end-user can provide the street address or venue name associated with the physical location of the hotspot after logging into the website hosted by the public network service provider.”), 0016 (“FIG. 4 illustrates a graphical user interface of a home page for logging into a service provider for providing services in accordance with the principles of the present invention.”); *see also id.*, claim 1 (“A method for providing vicinity-based community services at a wireless access location by a public network service provider...”), claim 14 (*same*).) The term “public network” in Baig refers to the Internet. (Baig, *e.g.*, ¶0003 (“... mobile phones and the like, can connect to a public network (*e.g.*, the Internet)”), 0045

(“Whenever a mobile device **102** that is connected to a hotspot **110** requests information from the public network (e.g., the Internet) **120**...”); *see also id.*, ¶¶0043-0044.) This is consistent with the understanding of persons of ordinary skill in the art who commonly referred to the Internet as a “public” network. (EX1022, ¶29; *see also* Baig, Fig. 1 (“The access point acts as a bridge between the internal/private network and the public network / internet”) (emphasis added).) Baig also uses the term “online service provider,” yet another synonym for ISP, to refer to the provider of the VCSP website. (Baig, ¶0054 (“Once the users log into the website of the online service provider **202**, the users can engage in various activities with other users in their vicinity.”) (emphasis added); *see also* EX1023, 32:15-34:3.)

It would therefore have been obvious that the “public network service provider” that operates the system in Baig would have been an Internet Service Provider (ISP). (EX1022, ¶29.) This is also consistent with the plain and ordinary meaning of “service provider” in the field of the Internet and computer networking, which was understood as a shorthand to refer to an ISP. (*See Microsoft Computer Dictionary* (5th ed. 2002) (EX1025), p.475 (“**service provider** *n.* See ISP.”), p.291 (“**ISP** *n.* Acronym for **Internet service provider**. A business that supplies Internet connectivity services to individuals, businesses, and other organizations... Also called: access provider, service provider.”) (bold and italics in original; underlining added), p.281 (definition of “Internet”); EX1022, ¶29.)

Despite the fact that “public network service provider” and “service provider” appear multiple times throughout Baig, including in both of its independent claims, Patent Owner and its expert do not acknowledge or address a single one of those disclosures. As part of an ISP and contrary to Patent Owner’s argument, it would have been obvious for the system in Baig to have been aware of the DHCP lease time in which the dynamic IP address would have been valid, to the extent this is a claim requirement. For example, it would have been obvious for the Baig system, as part of the ISP manages dynamic IP addresses, to have included DHCP server functionality or had knowledge of DHCP lease times. As Patent Owner’s expert explained at his deposition, “[t]o the extent the [ISP] is providing the DHCP service... they would be responsible for setting the lease times and deciding whether to honor those lease times.” (EX1023, 32:5-14; *see also* Sitaraman, 4:14-15 (“A DHCP server may maintain the lease information of IP addresses allocated to users.”), 3:49-51 (“Once the lease expires the IP address can be ‘recycled’ and given to another machine.”); EX1022, ¶30.)

Nor is there any merit to Patent Owner’s contention that “extensive modifications” would have been required to enable Baig’s content server to be aware of DHCP lease times. (Response, 25-26.) This argument again ignores Baig’s repeated disclosures as discussed above. Patent Owner’s contentions are further undermined by the deposition testimony of its expert, who testified (in response to

redirect questions by Patent Owner) that, at the time of the invention, there were “well into the thousands” of ISPs in the United States, and even within a specific geographic region, “you could be looking at dozens.” (EX1023, 48:11-49:8.) As anyone who had ever accessed the web portals provided by an ISP would have known, it was commonplace (and remains commonplace today) for ISPs to provide additional services beyond connectivity to the Internet, such as messaging services, user forms, and other services. (EX1022, ¶32; *see also* Joe Habraken, *Absolute Beginner’s Guide to Networking* (4th ed. 2004) (EX1026), p.439 (“**Internet service provider (ISP)** A provider of Internet-based services. An ISP provides an Internet connection to users or companies in addition to other services, such as Internet mail, Web browsing, FTP, and news-groups.”) (bold in original).) A skilled artisan would thus have regarded the vicinity-based community in Baig as consistent with the types of services offered by ISPs at the time of the invention. (EX1022, ¶32.)

IV. PATENT OWNER’S ARGUMENTS ABOUT CLAIM 6 SHOULD BE REJECTED.

Patent Owner also provides separate arguments directed to claims 6-7, 11-12, 17-18, and 20-21, but those arguments focus entirely on dependent claim 6. (Response, 26-35; EX2001, ¶¶78-95.) These arguments are without merit.

A. The Proposed Combination Provides a Consistent Mapping of the Claimed “Automatic Action.”

Patent Owner’s first argument attempts to identify an inconsistency between Petitioner’s mapping of the “**an automatic action**” of independent claim 1, but there is no inconsistency. As explained in the Petition, the prior art combination discloses the claimed “**automatic action**” of claim 1 when it sends the web page of Baig (Figure 6), which includes box **606**, to the second mobile device. (Petition, 41-42; EX1002, ¶¶130-132.) Claim 6 depends from claim 1 and further specifies that “**the automatic action comprises selecting an advertisement.**” Petitioner demonstrated that it would have been obvious, based on the Baig-Gerace combination, to select and cause an advertisement to be presented to users of the vicinity-based communities of Baig. (Petition, 63-67; EX1002, ¶¶182-192.)

Patent Owner contends that the proposed combination relies on a different “**automatic action**” for claims 1 and 6, but this argument is wrong. Nothing in the Petition required that the selected advertisement for claim 6 be delivered separately and independently from the webpage of Figure 6 of Baig that provides user list **606**. To the contrary, the Petition and opening expert declaration made clear that the selected advertisement for claim 6 could have been delivered as part of the same webpage that presents user list **606**. (EX1002, ¶183 (“[T]he advertisement could have been selected and delivered automatically as part of the creation and transmission of the webpage (Fig. 6) sent to the second device, after the second

device logs into the content server.”); Petition, 64 (citing Baig, Fig. 6 & ¶0074).) Accordingly, under the proposed combination, delivering the webpage of Figure 6 that includes user list **606** (the “**automatic action**”) would have further included the selected advertisement. (*Id.*)

B. The Proposed Combination Selects Advertisements, Not Just Advertisers.

Patent Owner next argues that the proposed combination does not select an advertisement from a plurality of advertisements. The gist of Patent Owner’s argument appears to be that the proposed combination selects an advertiser but not a particular advertisement. (Response, 28-34.)

This argument is refuted by both Baig and Gerace. With respect to Baig, Patent Owner’s argument is premised on the assumption that after the system selects an advertiser, it delegates actual selection and display of the advertisement to the advertiser. Baig contradicts this by stating that “[a]t step **2208** [of Figure 22], the VCSP provides advertisements from advertisers (e.g., local businesses or other entities).” (Baig, ¶0099 (emphasis added).) Baig thus confirms that the VSCP in Baig – and not the individual advertisers – is responsible for delivering the advertisements to users. It would have been obvious that for the VCSP to deliver an advertisement, it would have selected that advertisement. (EX1022, ¶37.) This is consistent with Gerace, which explains that “[t]he system selects which

advertisements to show to a user based on the bid amount showing the advertisements with the highest bids first.” (Gerace, ¶0021 (emphasis added).)

Patent Owner points to a statement from Baig about its bidding system in which a winning advertiser will receive “exclusive rights to advertise on the VSCP website” for a particular time or target audience. (Response, 31-32.) But this merely states that the winning advertiser will have its advertisements shown over the advertisements of others. (Baig, *e.g.*, ¶0012 (“The bidding entity associated with the highest bid is selected, and advertisements associated with the selected entity are provided in real time to the location.”).) It says nothing about the mechanics of how the advertisement is selected. (EX1022, ¶39.)

Patent Owner’s argument also makes no sense from an operational standpoint because Baig discloses a targeted advertising system in which advertisement selection is based on a user profile. (Baig, *e.g.*, ¶0061.) The user profile information used to perform targeted advertisement is collected, and securely stored, by the VCSP. (Baig, ¶0093 (“As users register online on the VCSP website, profile information about our users, such as age, gender, occupation, interests and the like are requested during the registration process and securely stored by the VCSP **202.**”).) It therefore would have been obvious that selecting the advertisement would have been performed by the VSCP because the VSCP holds the profile information on which the selection of the targeted advertisement is based. (EX1022, ¶40.)

In fact, for the targeted advertising system in Baig to function in the manner Patent Owner suggests, the VCSP would need to share profile information of individual users with the winning advertiser to enable it to select an appropriate advertisement based on the user profile information. (EX1022, ¶41.) Baig discloses no mechanism for doing so, which is unsurprising as this could create potential privacy issues. (*Id.*) In fact, the only profile information that Baig shares with advertisers is “aggregated” or bulk information about all users, not the type of individual profile information that would have been needed to select a targeted advertisement for a particular user. (Baig, ¶¶0097-0098, 116-117, Fig. 16-17.)

Patent Owner’s final argument is that Baig does not disclose selecting an advertisement based on at least a portion of user profile information because, according to Patent Owner, “Baig explicitly teaches selecting the winner of the auction based solely on ‘the highest bid.’” (Response, 34.) This argument overlooks that selection of an advertisement is based on both the profile information and the highest bid. In fact, the bids themselves include desired profile information of users to whom the advertisement is targeted. (Baig, *e.g.*, ¶¶0103 (“In one embodiment, multiple advertisers can bid against each other to have their advertisements displayed... based on some other end-user profile.”) (emphasis added), 104 (“The winner of the bidding contest receives exclusive rights to advertise... to female end-users who are 18-25 years old at a particular geographical location.”).) Patent

Owner's arguments about claim 6 thus fail, and its arguments about claims 7, 11-12, 17-18, 20-21, and 23 are based on claim 6. (Response, 35.)

V. CONCLUSION

For the reasons stated above, and in the Petition, the Board should find the challenged claims unpatentable based on the instituted grounds.

Dated: August 28, 2024

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), I certify that this reply complies with the type-volume limits of 37 C.F.R. § 42.24(c)(1) because it contains 5,592 words, based on the word-processing system used to prepare this reply, excluding the parts of this reply that are exempted by 37 C.F.R. § 42.24(a).

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CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. Section 42.6, that a complete copy of the attached **PETITIONER'S REPLY IN SUPPORT OF ITS PETITION FOR *INTER PARTES* REVIEW** and related documents, are being served via electronic mail on the 28th day of August 2024, upon the Patent Owner's attorneys of record in this proceeding as follows:

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