

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

REPLY DECLARATION OF CHRISTOPHER M. SCHMANDT

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. POSITA DEFINITION	3
II. RESPONSE TO MR. DE LA IGLESIA’S ARGUMENTS RE WHETHER THE PRIOR ART DETERMINES AN ASSOCIATION BETWEEN USERS VERSUS DEVICE IDENTIFIERS	3
III. RESPONSE TO MR. DE LA IGLESIA’S ARGUMENTS RE “DETERMINING THAT THE... DEVICES HAVE SEPARATELY ACCESSED THE INTERNET... DURING A PREDETERMINED PERIOD OF TIME”	13
IV. RESPONSE TO MR. DE LA IGLESIA’S ARGUMENTS RE CLAIMS 6-7, 11-12, 17-18, 20-21, AND 23	25
V. CONCLUSION	30

Reply Declaration of Christopher M. Schmandt

I, Christopher M. Schmandt, declare as follows:

1. I have been asked to review and respond to certain points raised in a “Declaration of Erik de la Iglesia in Support of Patent Owner’s Response to the Petition” dated May 29, 2024, filed in IPR2022-01281 (EX2001, “**de la Iglesia Declaration**”). This Declaration will focus on portions of the de la Iglesia Declaration that affirmatively present new facts or new rationale to which a response is warranted. To the extent other portions of the de la Iglesia Declaration state general disagreements with conclusions that I reached (on which the Petition relied), without actually providing contrary evidence or analysis, I adhere to the analysis in my opening declaration (EX1002, “**Opening Declaration**”).

I. POSITA DEFINITION

2. There appear to be no disagreements between the parties with respect to the qualifications of a person of ordinary skill in the art, as Mr. de la Iglesia adopted the formulation in my Opening Declaration. (EX2001, ¶26.)

II. RESPONSE TO MR. DE LA IGLESIA’S ARGUMENTS RE WHETHER THE PRIOR ART DETERMINES AN ASSOCIATION BETWEEN USERS VERSUS DEVICE IDENTIFIERS

3. Mr. de la Iglesia first argues that my Opening Declaration did not adequately establish that the computer system in the proposed combination “**determin[es] an association between device identifiers of two or more Internet-**

accessing electronic devices.” Mr. de la Iglesia argues that the prior art combination instead determines an association between users, not device identifiers.

4. My Opening Declaration articulated two theories for how this claim limitation was satisfied. (EX1002, ¶84.) With respect to the first theory, Mr. de la Iglesia asserts that “it is not clear how device identifiers merely ‘referring’ to particular devices would mean that there is a *determination* that those identifiers are associated.” (EX2001, ¶41 (*italics in original*)). But this argument misstates the theory in my Opening Declaration and ignores the disclosures in Baig that cited to support it. My Opening Declaration explained that, in Baig, “[i]n order to determine whether the two more mobile devices **102** are connected to a common LAN, the content server in Baig checks to see if they are connected through an access point **106** having a common IP address.” (EX1002, ¶77.) I cited repeatedly to Baig which explains that: “At step **306**, the server **224** identifies all the users who have logged in from a common hotspot as having the same access point IP address.” (EX1002, ¶¶77, 84 (quoting Baig, ¶0056).) As further explained in Baig, “[t]he VSCP identifies a group of users at a wireless hotspot based upon their common public IP address and interconnects them, thereby creating a vicinity-based user group.” (Baig, ¶0038 (cited in EX1002, ¶77).) I thus did not rely on device identifiers as merely “referring to” particular devices – I relied on the fact that the content server in Baig identifies mobile devices by determining that IP addresses match, to identify

the devices that belong to the vicinity-based community or group. Mr. de la Iglesia does not explain how determining that IP addresses match – which indicates that the underlying devices are in physical proximity to each other and are part of the same vicinity-based community or group – does not disclose determining that an “**association**” between them exists.

5. Mr. de la Iglesia also claims that “Baig does not place *devices* into vicinity-based communities; rather, Baig places *users* into vicinity based communities, as shown by Mr. Schmandt’s citations to Baig (as well as my more detailed review of Baig).” (EX2001, ¶42 (emphasis in original).) I disagree. The vicinity-based community in Baig is a virtual community created by a server and only accessible by users through their devices. It would have been apparent that Baig places devices – not users – into a vicinity-based community or group.

6. This is also made clear throughout Baig. For example, Baig explains that his 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).)

7. To the extent Baig may at times casually refer to “users” being placed into vicinity-based groups, this is a mere shorthand for their mobile devices that are used to access the content server. For example, Mr. de la Iglesia refers to Paragraph 0056 of Baig, which explains 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.” (EX2001, ¶42 (quoting Baig, ¶0056) (emphasis added).) But users obviously do not have IP addresses – their devices do. (Baig, *e.g.*, ¶0044 (“An IP address is necessary because all data communications takes 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.”) (emphasis added).) The same is true for cookies.

8. Mr. de la Iglesia further argues that even if Baig discloses determining an association between devices, “showing that two *devices* are associated does not establish a determination that corresponding device *identifiers* are associated.” (EX2001, ¶44 (emphasis in original).) But Mr. de la Iglesia does not explain the significance of the supposed distinction between devices and their device identifiers. The content server in Baig determines an association between devices, under the proposed combination, *based on* their device identifiers and the use of a common IP address. (EX1002, ¶¶83-84.) As explained in my Opening Declaration, the device

identifiers are clearly associated with each other because they belong to mobile devices that are currently logged-into the content server, and that are connected to the content server through the same wireless access point. (EX1002, ¶¶83-84, 95.)

9. This is consistent with the specification of the '878 patent, which makes clear that the claimed “**association**” between device identifiers is based on the existence of a common IP address. ('878, 14:6-8 (“The existence of the common IP address associates the online access IP address and the set-top box IP address.”).) Claim 1 itself makes this point clear by reciting, in relevant part, that “**determining the association in part (a) is done... to determine that the two or more Internet-accessing electronic devices have separately accessed the Internet... via a common IP address.**” In fact, the written description expressly describes the claimed “**association**” as being an association that exists “among the devices”:

Once a STB is confirmed to have been using a certain IP address at a certain date and time... the CAS database can be searched to find all the computers, mobile devices, and other STBs that used the same IP address at the same date and time, and those will be assumed to be devices that are part of the same household and using the same LAN. Then, **an association or link is created among the devices....**

('878, 18:57-19:5 (emphasis added).)

10. Mr. de la Iglesia next states that his opinions are further supported by a previous IPR decision from almost seven years ago, *Yahoo! Inc v. Intent IQ, Inc.*,

IPR2017-01299 (October 31, 2017) (**EX1024**), involving a different patent (U.S. Patent No. 8,677,398) having different claims, and involving different prior art. (EX2001, ¶¶44-46.) Having reviewed that decision, I do not see how it has relevance to the proposed Baig-Laidlaw combination. In the portions of the decision cited by Mr. de la Iglesia, the petitioner argued that the device identifiers in the prior art reference at issue (Julia), for purposes of claim 13 of the patent, corresponded to the make, type, or model of the computer, cell phone, or television. (Decision, at 19.) Mr. de la Iglesia seizes on the statement in the Board’s decision that although “Julia teaches an electronic association between devices that interconnected to a home network or local area network, claim 13, however, requires an electronic association between the first device *identifier* and the second device *identifier*.” (*Id.* (italics in original).) But unlike the Baig-Laidlaw combination, there is no suggestion in the *Yahoo!* decision that the Julia reference used the make, type, or model of two or more user devices in order to determine that the devices were part of a group.² In contrast, the Baig-Laidlaw combination depends on device identifiers to determine that the underlying devices are part of the same vicinity-based community.

² It is questionable, in fact, if the make, type or model of a device in Julia could even provide a basis to place devices into the type of group in Baig. Unlike an IP address assigned to a device which is unique, the make, type or model of a device may not be, so multiple devices could have the same make, type or model.

Reply Declaration of Christopher M. Schmandt

11. With respect to the second theory articulated in my Opening Declaration, Mr. de la Iglesia first recycles his argument from above that Baig places users rather than devices into vicinity-based communities. (EX2001, ¶48.) I disagree with this argument for the reasons fully articulated above.

12. Mr. de La Iglesia next argues that “[u]sing cookies to determine whether devices are associated is distinct from determining whether cookies are associated; there is no indication that Baig’s system cares about an association of cookies, much less determines an association between them.” (EX2001, ¶49.) But as fully explained above, the proposed combination determines that *devices* are associated by relying on their *device identifiers*, including the cookie used to determine a mobile device as currently-logged and to identify the vicinity-based community to which it is a part.

13. Additionally, Mr. de La Iglesia’s observation that Baig does not “care[] about an association between cookies, much less determines an association between them,” is simply an attack on Baig individually. (EX2001, ¶49.) I am informed by counsel that, under the patent laws, an obviousness theory based on a combination of references cannot be defeated by simply attacking the references individually when, as here, the theory is based on the combined disclosures of the prior art. In this case, Baig was combined with Laidlaw for the use of cookies to keep track of mobile devices that are currently logged-into the content server. (EX1002, ¶¶84, 87, 106.)

Reply Declaration of Christopher M. Schmandt

Under the proposed Baig-Laidlaw combination, therefore, it is simply not true that the system would not “care[] about an association of cookies,” as Mr. de la Iglesia argues. (EX2001, ¶49.) Baig repeatedly makes clear that the process of 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).”), 0069 (“The home page also includes a link **414** to see who else is logged in. By selecting link **414**, a list of users logged on to the website from the present vicinity-based hotspot is provided, as illustrated, for example, in the web pages of FIGS. 6 and 7.”), 0076 (“The web page **600** also displays a list **606** of other users at the present hotspot **110**. In one embodiment, the list includes the user names associated with users that have logged into the VCSP website.”), 0088 (“For example, mobile devices A, B, C, D and E have logged onto the vicinity-based service hosted on a server. The mobile devices A, B, C, D, & E are identified by the VCSP vicinity-based service to be in proximity to one another.”); *see also id.*, ¶¶0076-0078.) As explained in my Opening Declaration, 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.” (EX1002, ¶84.) Membership in a vicinity-based community in Baig therefore depends **both** on the common IP address among the devices, **and** on the devices having been logged-into the server. The cookies of devices in a vicinity-based community, therefore, are thus obviously associated because the cookies belong to mobile devices that are in close proximity to each other, that are logged into the content server from a common IP address, and thus, are placed into the same vicinity-based community or group by the content server. The claimed “**association**” requires nothing more.

14. Mr. de la Iglesia next offers an analogy in which students apply to a college using social security numbers, and each student is assigned a different student ID and sorted into dorm rooms. (EX2001, ¶¶50-51.) He then claims that “[a] determination that two students are assigned to the same dorm room could 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, even though their social security numbers were used previously in the process that led to the determination that the two students are associated.” (*Id.*)

15. This analogy has little relevance because Mr. de la Iglesia does not identify what the “social security number” in his analogy corresponds to in the Baig-

Reply Declaration of Christopher M. Schmandt

Laidlaw combination. He was asked this repeatedly at his deposition but would not answer. (EX1023 (de la Iglesia Depo.), 44:6-47:14.) Despite his refusal to answer, Mr. de la Iglesia's Declaration suggests an analogy between (1) the student's social security number and the mobile device's cookie, and between (2) the student ID and the username of the logged-in user in the Baig-Laidlaw combination. The analogy nevertheless falls apart because while a student does **not** need to present their social security number each time to gain entry into their dorm room, in 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 fundamental requirement of cookies, as explained in my Opening Declaration. (EX1002, ¶¶89-90.) Transmission of the cookie with each request is essential because, as explained in my Opening Declaration, the server would otherwise have no knowledge of prior requests and thus would not be able to identify the user device or know that the user device had been used to log-in. (*Id.*, ¶¶90, 105.) As explained, the cookie is essential to the server's ability to identify the mobile device and know that the device is logged into the content server. (*Id.*, ¶¶87, 91-92, 105-106.)

16. Mr. de la Iglesia next argues that, under the proposed Baig-Laidlaw combination and based on his analogy, "after the users are logged into Baig's VCSP, [I] provide[] no evidence of the users being identified by anything other than their respective usernames." (EX2001, ¶51.) I disagree because, as explained, the cookie

would have been sent to the content server of Baig with each request, and under the proposed combination, is used by the content server to identify the user and determine whether it is logged-in. And as explained in my Opening Declaration, in fact, the content server in the Baig-Laidlaw combination actually uses 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.” (EX1002, ¶106 (emphasis added).) Mr. de la Iglesia does not dispute this.

**III. RESPONSE TO MR. DE LA IGLESIA’S ARGUMENTS RE
“DETERMINING THAT THE... DEVICES HAVE
SEPARATELY ACCESSED THE INTERNET... DURING A
PREDETERMINED PERIOD OF TIME”**

17. Mr. de la Iglesia contends 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.**” The gist of his argument is that the content server in Baig would not have determined that the mobile devices accessed the Internet during the DHCP lease period because, according to him, the server would not have any information about the DHCP lease period applicable to the access point. (EX2001, ¶¶56-60.)

18. But there are two separate problems with Mr. de la Iglesia’s argument. The first problem is that Mr. de la Iglesia’s argument appears to assume that the language of claim 1(b) requires the claimed “**computer system**” in all cases to have actual knowledge of the claimed “**predetermined period of time**” in order to

determine that the claimed access occurred during that period of time. But the claim does not impose such a requirement. The language of claim 1(b) states that the determining step is done “**to determine that the two or more Internet-accessing electronic devices have separately accessed the Internet through a router of the LAN during a predetermined period of time via a common IP address.**” This clause is the only occurrence of the phrase “**predetermined period of time**” in claim 1, so the claimed predetermined period of time is not referenced or used anywhere else in the claim.

19. In my opinion, the claim language does not in all cases require that the computer system performing the determining step have actual knowledge of the claimed predetermined period of time. The claim language requires that a determination be made that a particular condition exists – that “the two or more Internet-accessing electronic devices have separately accessed the Internet through a router of the LAN during a predetermined period of time via a common IP address.” Determining that such a condition exists does not, in every case, require that the computer system have knowledge of the claimed predetermined period of time. For example, under the proposed combination, determining that the claimed access by the two or more Internet-accessing electronic devices occurred “**during a predetermined period of time**” is subsumed by the 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 a dynamic IP address assigned using DHCP. As explained in my Opening Declaration, the IP address shared by the two or more mobile devices would have been dynamically assigned using DHCP, which means it would have had a lease period with an expiration. (EX1002, ¶¶112-113, 116.) Accordingly, once the IP address assigned to the access point expires, devices can no longer communicate with the content server through the access point via that IP address (unless the lease is subsequently renewed). (EX1002, ¶113 (“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.”).) Accordingly, to the extent the two or more mobile devices in Baig are capable of accessing the content server over the Internet through the access point using via the 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 communicate with the server through the access point using that IP address.

20. As a result, when the system in Baig determines that two or more mobile devices have accessed the Internet **“via a common IP address,”** that act also

determines that the access occurred during a DHCP lease time because the common IP address was a DHCP-assigned address. It does not matter whether or not the system knows the precise period of the DHCP lease time (and the claim imposes no such requirement) – because the IP addresses are dynamically assigned using DHCP in the proposed combination, the access through those IP addresses is sufficient for the content server to have determined that 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 Baig-Laidlaw combination, applicable to the access point and all of the mobile devices through which it is connected. (EX1002, ¶114.) To use an analogy, if one were to observe a person watching Netflix on their smartphone, that is sufficient for the observer to determine that the person is accessing Netflix during “a predetermined period of time,” *i.e.*, the predetermined period of time associated with the current Netflix subscription used by that phone. The observer would not need to know when the subscription started, or how long it would continue to remain valid, to know that the access occurred during “a predetermined period of time,” because access to Netflix is subject to a term-based subscription.

21. This is consistent with the written description of the '878 patent and the particular embodiment cited by Mr. de la Iglesia in this declaration. (EX2001, ¶41 (citing '878, 16:12-48).) In the embodiment at column 16, lines 12-48 of the '878

patent cited by Mr. de la Iglesia, the Central Ad Server (CAS) **40** does *not* have knowledge of the lease times for the assigned IP addresses. The CAS **40**, at best, periodically receives information about IP addresses and the dates and times when they were used. ('878, 16:22-27, 16:30-37.) This information is used to deliver 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.” (*Id.*, 16:43-45 (emphasis added).) This simply refers to the particular time the IP address was used, which is not a “**period of time**” because it does *not* include an ending point. A particular point in time (or multiple points in time) when the IP address happened to have been used in the past – which is the most CAS **40** receives – is not a “**period of time**” because simply knowing the date and time an IP was previously used tells CAS **40** nothing the period of time *after* that point, such as how long the IP address will remain valid.

22. I thus disagree with Mr. de la Iglesia when he asserts that this embodiment in column 16 discloses a predetermined period of time in the form of “the period of time that the STB determines that the IP address was assigned to STB, which is determined by CAS due to the STB’s reporting of that information[.]” (EX2001, ¶31 (emphasis added).) The STB does not report this period of time to CAS **40** – it only reports particular points in time in the past when the IP address was previously used. ('878, 16:22-27 (“STB **36** can be configured to periodically...

report to CAS **40** all of the common IP addresses assigned to modem **32** and the corresponding dates and times they were used for some preceding span of time (e.g., 1, 7, 14, 30, or 90 days, or some other suitable interval).”) (emphasis added).) Nor is any particular date and time of prior use “**predetermined**,” even if could qualify as a period of time, because it was based on when the IP address happened to have been used to access the Internet. At the point in time when the “**determining**” function of claim 1(b) occurs in response to access by mobile devices (which would occur after the previous dates and times reported to CAS **40**), none of the information previously reported to CAS **40** by the STB provides any information about a period of time that could be used in the determining step.

23. In summary, the written description does not support and actually refutes Mr. de la Iglesia’s assumption that claim 1(b) requires that the determination in claim 1(b) be performed with actual knowledge of the claimed predetermined period of time. He identifies no embodiment in the ’878 patent in which the CAS receives information that could qualify as a “predetermined period of time,” let alone uses it to perform the claimed determining step.

24. My opinion is supported by a variation of the analogy outlined in Mr. de la Iglesia’s declaration:

By way of analogy, two people entering a store may happen to have the same birthday, but that does not mean that the store has made a *determination* that they have the same birthday. The store manager, for

Reply Declaration of Christopher M. Schmandt

example, likely has no idea whether individuals entering the store have the same birthday. Likewise, there is no evidence that Baig's system (as Mr. Schmandt proposes it would be modified) would have any idea as to whether two devices accessing Baig's content server would have done so within the duration of a DHCP lease period.

(EX2001, ¶58 (emphasis in original).) Although this analogy is inappropriate, a slight modification shows why the prior art fully discloses the claim limitation.

25. To the extent the “store” in the analogy is meant to refer to the content server in Baig, the analogy is inappropriate because the two people can of course enter the store regardless of whether or not they share the same birthday. The same is not true under the proposed combination; two mobile devices using a common DHCP-assigned IP address **cannot** connect to the content server in Baig unless they do so during the DHCP lease period, because the IP address is not valid outside that period.

26. In a modification to the analogy proposed by Mr. de la Iglesia to make it more applicable to the proposed combination, imagine a store that sits within a region of the city that does not allow persons to enter on any day other than their birthday. Accordingly, when two customers are found in the store, they **will** share the same birthday because they otherwise could not even have entered. There is no need for the store manager to separately “determine” whether they share a common birthday (such as by checking their identification) because determining their

physical presence in the store is enough to determine they have entered on their birthday. The same is true in the proposed combination – if the mobile devices can access the content server over the Internet, using a DHCP-assigned IP address, that access must be occurring during the DHCP lease period applicable to that address.

27. Next, even assuming the claim requires that the computer system performing the determining step have knowledge of the claimed predetermined period of time, the claim would *still* be satisfied. As explained in my Opening Declaration, dynamic IP addresses are assigned by DHCP servers. (EX1002, ¶¶112-113.) Nothing in my analysis requires that the DHCP server be separate from or unaffiliated with the servers in Baig.

28. Mr. de la Iglesia's assumption to the contrary is based on the argument that an IP address under DHCP would have been assigned by an Internet Service Provider (ISP). (EX2001, ¶¶60-63.) I agree that DHCP servers were used by Internet ISPs to assign IP addresses, which is noted in Sitaraman as explained in my Opening Declaration. (EX1002, ¶112.) This is also confirmed by 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.").) But I disagree with Mr. de la Iglesia's next assertion that "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).” (EX2001, ¶60.)

29. Mr. de la Iglesia does not provide any citation to Baig nor does he conduct any analysis of Baig in coming to this conclusion. Baig itself refutes this argument by confirming that the content server in fact *does* belong to an ISP. Baig repeatedly states that the vicinity-based community service provided by the content server 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. (Baig, Fig. 1 ("The access point acts as a bridge between the internal/private network and the public network / internet"); *see also, e.g., Microsoft Computer Dictionary* (5th ed. 2002) (**EX1025**), p.411 (defining point-to-point tunneling which refers to "an open, public network such as the Internet"), p.470 (defining secure wide area network as "[a] set of computers that communicate over a public network, such as the Internet....").) Baig also uses the term "online service provider," which is another synonym for an ISP. (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.").)

30. It would therefore have been obvious to a person of ordinary skill in the art that the "public network service provider" in Baig, who operates the content server and provides the disclosed vicinity-based community service, would have been understood as referring to an Internet Service Provider (ISP). 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); *see also id.* at p.281 (definition of Internet).)

31. Mr. de la Iglesia does not analyze any of these disclosures from Baig, or provide any explanation as to why the content server in Baig could not be part of an ISP – despite the fact that the terms “public network service provider” and “service provider” appear throughout Baig. Accordingly, there is no basis for Mr. de la Iglesia’s assertion that “Baig’s content server is not an ISP and would have no reason to use data from ISPs in running its content server” (EX2001, ¶60), because Baig itself confirms that the disclosed system is, in fact, operated by an ISP. It therefore would have been obvious that the system in Baig would have been aware of the DHCP lease time during which the dynamic IP address would have been valid, to the extent this is a requirement of the claims. For example, it would have been obvious for the system to have provided the functionality of the DHCP server, making it responsible for assigning and managing the IP addresses including managing the lease periods, requiring that it have knowledge of the DHCP lease times. (See 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.”); *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.”).) In sum, Mr. de la Iglesia’s assertion that the content server would be separate from, and unaffiliated with, an ISP is refuted by the record.

32. That the computer system in Baig would have been an ISP is also supported by Mr. de la Iglesia’s deposition testimony, in which he testified that, at the time of the alleged 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 (de la Iglesia Depo.), 48:11-49:8.) As anyone who had ever accessed the web portals provided by Comcast, Cox, or other ISPs would have known, it was commonplace (and remains commonplace today) for ISPs to provide services beyond connectivity to the Internet, such as messaging services, user forms, and other services, including services over the web. (See 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. An ISP also typically offers space on its Web server for personal or corporate Web sites.”) (bold in original).) A person of ordinary skill in the art would thus have regarded the vicinity-based community in

Baig consistent with the types of services offered by ISPs at the time of the alleged invention.

33. Mr. de la Iglesia makes some additional statements that require only brief comment. For example, he cites a data sheet for a ZyXEL wireless hotspot (EX2004). (EX2001, ¶¶61-62.) I do not see how this data sheet has relevance to the analysis, as it has nothing to do with Baig or the '878 patent. Mr. de la Iglesia also provides a response to statements in the Institution Decision, but these statements again fail to acknowledge that Baig discloses that the content server belongs to an ISP. (*Id.*, ¶¶70-76.) Mr. de la Iglesia's arguments focus on the statement in the Institution Decision that there would have been a need "for the system to be aware of the lease time in which the dynamic addresses would be valid." (*Id.* ¶70 (quoting Institution Decision, at 21).) However, even if Mr. de la Iglesia is now arguing that is a requirement of the claim, for the reasons provided above, awareness is obvious where (as in the Baig-based combination that I explained) a content server is operated by an ISP.

IV. RESPONSE TO MR. DE LA IGLESIA'S ARGUMENTS RE CLAIMS 6-7, 11-12, 17-18, 20-21, AND 23

34. Mr. de la Iglesia also provides separate arguments directed to claims 6-7, 11-12, 17-18, and 20-21, but his arguments focus on dependent claims 6 and 7. (EX2001, ¶¶78-95.) Mr. de la Iglesia's first argument attempts to identify an alleged inconsistency between my mapping of the "**an automatic action**" of independent

claim 1, and my mapping of the “**the automatic action**” for claims 6 and 7 that depend from claim 1. But there is no inconsistency.

35. As explained in my Opening Declaration, 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. (EX1002, ¶¶130-132.) Claim 6 depends from claim 1 and further specifies that “**the automatic action comprises selecting an advertisement,**” and claim 7 recites that “**the automatic action comprises causing the selected advertisement to be directed to the second device.**” For these limitations, I demonstrated why it would have been obvious, based on the combination of Baig and Gerace, to select and cause an advertisement to be presented as claimed. (EX1002, ¶¶182-192.)

36. Mr. de la Iglesia argues that my mapping of claim 6 fails because, according to him, I “must show that sending Baig’s user list **606** comprises selecting an advertisement,” but according to him, I “do[] not provide any such showing (or even allegation).” (de la Iglesia, ¶83.) But nothing in my Opening Declaration required that the advertisement directed to the second device be separate and independent from the webpage of Figure 6 of Baig. In fact, Mr. de la Iglesia appears to have entirely overlooked the explanation in my Opening Declaration that, under the proposed combination of Baig and Gerace, it would have been obvious for the advertisement to “have been selected and delivered to the second device

automatically, as part of the webpage (Figure 6) sent to the second device, upon the second device user logging on to the content server.” (EX1002, ¶183 (emphasis added).) Under the proposed combination, therefore, the action of delivering the webpage of Figure 6 that includes box **606** to the second device (the “**automatic action**” for claim 1) would have further included selecting and causing an advertisement to be presented as recited in claims 6 and 7. Mr. de la Iglesia makes no attempt to address this.

37. Mr. de la Iglesia next argues that the proposed combination does not show how Baig selects and causes an advertisement from a plurality of advertisements to be presented. He appears to argue that the proposed combination selects an advertiser but not a particular advertisement. (EX2001, ¶¶87-90.)

38. This argument is refuted by both Baig and Gerace. With respect to Baig, Mr. de la Iglesia’s argument appears to be premised on the assumption that after the system selects an advertiser, the system delegates to the advertiser the actual selection and display of the advertisement. 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 – are responsible for delivering the advertisements to users. It would have been obvious that in order for the VCSP to deliver an advertisement to users, it would have selected that

advertisement in the first instance. This is also 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.) As explained in my Opening Declaration, the claimed plurality of possible advertisements include “those from other advertisers entities who participated in the bidding contest.” (EX1002, ¶183.)

39. Mr. de la Iglesia does not point to anything in Baig that suggests that the system merely selects an advertiser and then delegates selection and presentation of the advertisement to the advertiser. He merely points to a statement from Baig about the bidding system in which a winning advertiser will receive “exclusive rights to advertise on the VSCP website” for a particular time of day or for a particular target audience. (EX2001, ¶88 (citing Baig, ¶182).) 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 actual advertisement is selected, let alone suggests that the advertiser does the selecting.

40. Mr. de la Iglesia’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 (“[V]icinity-

based advertising provides the ability to advertise to an audience at a particular WiFi hotspot based upon the profile (e.g., age or gender) of the user (among other profile information), as well as advertise to other vicinity-based hotspots in the mesh network of the VCSP 202.”.) Baig discloses that the user profile information that is 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.

41. In fact, for the targeted advertising system in Baig to function in the manner Mr. de la Iglesia argues (*i.e.*, where the advertiser itself performs the selection), the VCSP would need to share profile information of individual users with a winning advertiser so the advertiser could select the most appropriate advertisement based on the user profile. This would be particularly critical if the advertiser was participating in multiple bids targeting users with varying demographics, as the advertiser would need to know the particular demographics for the individual user to show the correct advertisement. Baig discloses no mechanism for providing such individual profile information to advertisers, which is

unsurprising as this could create privacy problems. In fact, the only profile information that Baig discloses as being shared with advertisers is “aggregated” or bulk information about all users, not the individual profile information needed to select a targeted advertisement. (Baig, ¶¶0097-0098, 116-117, Fig. 16-17.)

42. Mr. de la Iglesia’s final argument is that because Baig discloses an auction-based advertising system, a person of ordinary skill in the art would not be motivated to use a portion of user profile information to select an advertisement. (EX2001, ¶¶91-94.) He asserts that “[a]lthough *advertisers* may select which advertisement to include in their bid response using profile information, there is no indication that *Baig’s* system as modified would choose which advertisement to select based in part on any profile information.” (*Id.*, ¶94 (emphasis in original).) But this argument is premised on the incorrect assumption that the system of Baig only selects a winning advertiser and delegates advertisement selection to the advertiser. This argument is incorrect for the reasons previously mentioned.

43. Mr. de la Iglesia also argues that claims 7, 11-12, 17-18, 20-21, and 23 are valid over the prior art, but his arguments merely refer back to arguments he made for claims 6 and 7, which I addressed above. (*Id.*, ¶95.)

V. CONCLUSION

44. In signing this Declaration, I recognize that the Declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the

Reply Declaration of Christopher M. Schmandt

United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in this proceeding. If required, I will appear for cross-examination at the appropriate time.

45. I hereby declare that all statements made herein of my own knowledge are true and that all statements are made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001.

Dated: August 28, 2024

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Chris Schmandt', written over a horizontal line.

Christopher M. Schmandt
Winchester, MA