

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

META PLATFORMS, INC.,  
Petitioner,

v.

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

---

Case IPR2023-01281  
Patent 10,715,878

---

**PATENT OWNER'S PRELIMINARY RESPONSE**

## TABLE OF CONTENTS

|       |                                                                                                                                                                                                                             |    |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| I.    | INTRODUCTION .....                                                                                                                                                                                                          | 1  |
| II.   | OVERVIEW OF THE '878 PATENT .....                                                                                                                                                                                           | 1  |
| III.  | LEVEL OF ORDINARY SKILL IN THE ART .....                                                                                                                                                                                    | 3  |
| IV.   | CLAIM CONSTRUCTION .....                                                                                                                                                                                                    | 4  |
| V.    | OVERVIEW OF THE ASSERTED PRIOR ART .....                                                                                                                                                                                    | 4  |
|       | A. Baig (Ex. 1003 & 1004) .....                                                                                                                                                                                             | 4  |
|       | B. Laidlaw (Exhibit 1006) .....                                                                                                                                                                                             | 5  |
| VI.   | THE PETITION FAILS TO SHOW A REASONABLE LIKELIHOOD<br>OF UNPATENTABILITY FOR CLAIM 1(b) OF THE '878 PATENT .....                                                                                                            | 6  |
|       | A. Claim 1[b] requires that the computer system “ <i>determine</i> ” that the<br>two devices have accessed the Internet through a router via a<br>common IP address “ <i>during a predetermined period of time.</i> ” ..... | 7  |
|       | B. The Petition’s theory for claim 1[b] is deficient and fails to<br>address claim requirements. ....                                                                                                                       | 10 |
|       | C. The Petition fails to show that the system in its proposed<br>combination makes a determination about whether or not the<br>accesses occurred “ <i>during a predetermined period of time.</i> ” .....                    | 14 |
| VII.  | THE PETITION’S DEFICIENCY FOR CLAIM 1[b] APPLIES TO ALL<br>GROUNDS AND ALL CHALLENGED CLAIMS .....                                                                                                                          | 16 |
| VIII. | CONCLUSION .....                                                                                                                                                                                                            | 17 |

## **I. INTRODUCTION**

The Board should deny institution of *inter partes* review (“IPR”) of U.S. Patent No. 10,715,878 (“’878 Patent”). Petitioner challenges various claims of the ’878 Patent under four grounds of unpatentability (Pet. at 4). The Petition, however, fails to establish unpatentability for any claim.

The Petition fails because each challenged claim requires that the computer system “determine” that the two devices have accessed the Internet through a router via a common IP address “during a predetermined period of time.” (Claim 1[b]). The Petition’s theory for this requirement is deficient and fails to address the claim requirements. It fails to show that the system in its proposed combination makes a determination about whether or not the accesses occurred “during a predetermined period of time.”

Accordingly, Petitioner has not met its burden to show a reasonable likelihood of invalidity for any challenged claim. Institution should be denied.

## **II. OVERVIEW OF THE ’878 PATENT**

The challenged claims of the ’878 Patent (claims 1-4 and 6-23) are directed to novel systems and methods that take an automatic action with respect to one device utilizing user profile information associated with a different device, wherein the two devices have identifiers that are associated based by “determin[ing] that the [two devices] have separately accessed the Internet through a router of the LAN

during a predetermined period of time via a common IP address.” The determination step is further discussed in Section VI.A below. The computer system that determines the “association” is specified as being “outside the LAN” but “connected to the LAN through the Internet.”

Claim 1 is representative of all the independent claims (claims 1, 13, 22) challenged in the Petition. Claim 1 recites:

1. A method for identifying an association among multiple electronic devices of a group of devices connected through a common local area network (LAN) and using the association for cross-device action, the method comprising:

(a) with a computer system, determining an association between device identifiers of two or more Internet-accessing electronic devices based on electronically stored association-detection information about a plurality of Internet-accessing electronic devices, wherein the stored association-detection information for each of the plurality of Internet-accessing electronic devices includes:

(i) a device identifier;

(ii) at least one dynamically assigned IP address assigned to a modem that connects a router of the LAN to the Internet; and

(iii) at least one timestamp specifying a time when the Internet-accessing electronic device accessed the Internet via the router of the LAN;

(b) wherein determining the association in part (a) is done by using the stored association-detection information 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;

(c) wherein the computer system determining the association in part (a) is outside the LAN and is connected to the LAN through the Internet; and

(d) with the computer system, using the association determined in part (a) to utilize user profile information associated with the device identifier of a first of the associated Internet-accessing electronic devices, and comprising behavioral or demographic data collected via the first of the associated Internet-accessing electronic devices, to take an automatic action with respect to a second of the associated Internet-accessing electronic devices using the device identifier of the second of the associated Internet-accessing electronic devices.

'878 Patent (Ex. 1001) at claim 1.

### **III. LEVEL OF ORDINARY SKILL IN THE ART**

The Petition proposes that a person of ordinary skill in the art ("POSITA") in the field of the '878 Patent "would have possessed a bachelor's degree in electrical engineering or computer science, and two years of work experience in the field of network-based computer systems, such as systems for sending and receiving information over local networks and wide area networks (such as the Internet or World Wide Web)." Pet. at 5. For purposes of this preliminary response, Patent Owner does not challenge this definition.

#### **IV. CLAIM CONSTRUCTION**

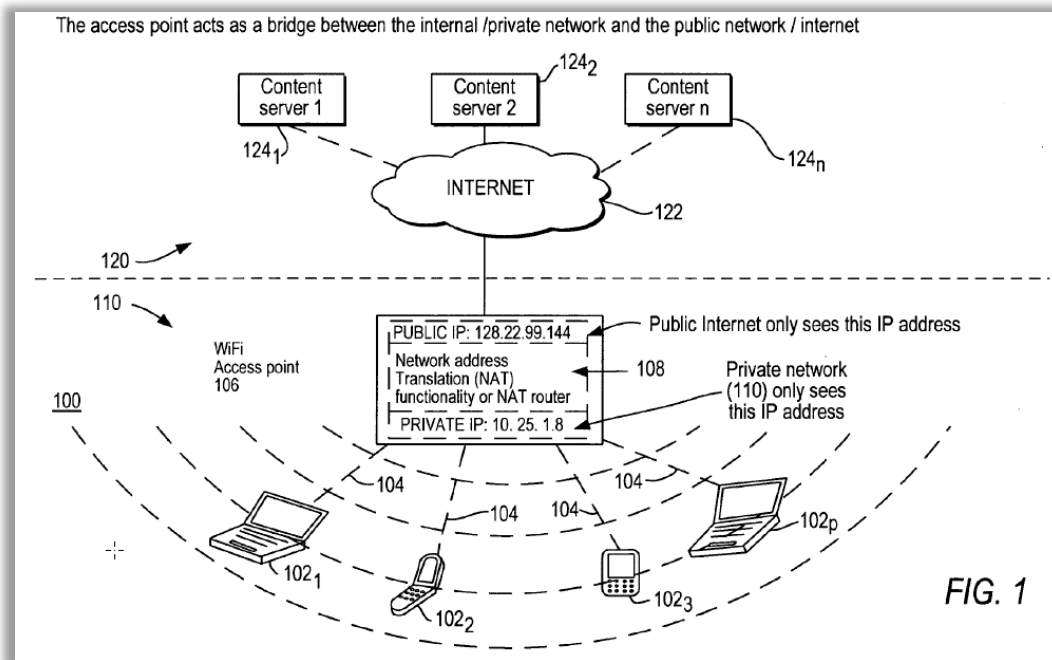
The Board does not construe any claim terms unnecessary to resolve the parties' dispute. *Shenzhen Liown Electronics Co. v. Disney Enterprises, Inc.*, IPR2015-01656, Paper 7 at 10 (Feb. 8, 2016) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). The Petition does not propose any terms for construction. *See* Pet. at 6-7. At this stage and for the purposes of this preliminary response, Patent Owner does not believe that any terms require express construction to resolve the parties' dispute. Petitioner has failed to establish a reasonable likelihood of invalidity under the plain and ordinary meaning of the claim terms and therefore institution should be denied.

#### **V. OVERVIEW OF THE ASSERTED PRIOR ART**

##### **A. Baig (Ex. 1003 & 1004)**

Baig "relates generally to vicinity-based communications services, and more specifically to an apparatus and method for providing mobile devices which are in communication with local area network wireless access points." Baig (Ex. 1003) at [0002]. Figure 1 of Baig shows communications network 100, with public wireless hotspot 110 coupled to a public network 120 through access point 106. *See* Ex. 1003 ¶¶ 13, 42. Public network 120 includes content servers that store and host information from websites. WiFi hotspot 110 enables at least one mobile device 102

to communicate over local private network 104 and communicate with content servers over the internet 122.



As discussed below, Baig does not teach or suggest the limitations of claim 1 of the '878 patent, including at least claim 1[b] that requires that the computer system “determine” that the two devices have accessed the Internet through a router via a common IP address “during a predetermined period of time.” Nor does the combination of Baig with another reference disclose or suggest this limitation.

## B. Laidlaw (Exhibit 1006)

Laidlaw pertains to the field of “managing computer systems, and more particularly, to a method and system for modular authentication and session management.” Laidlaw at [0001]. Petitioner asserts that “each mobile device under

the proposed combination would have had a ‘device identifier’ in the form of a cookie, which is electronically stored by the content server and used to identify the mobile device as currently logged-in.” Pet. at 18-19. Petitioner points to Laidlaw at [0006] and [0016] and relies on it to meet the claimed “device identifier.” Petitioner also asserts that a POSITA would also be motivated to combine Baig with a session table derived from the device identifiers of Laidlaw.

But as discussed below, the purported combination of Baig with Laidlaw does not disclose or suggests the limitations of claim 1, including at least claim 1[b]. Neither Baig nor Laidlaw or any combination discloses or suggests determining that the two devices have accessed the Internet through a router via a common IP address “during a predetermined period of time.”

## **VI. THE PETITION FAILS TO SHOW A REASONABLE LIKELIHOOD OF UNPATENTABILITY FOR CLAIM 1(b) OF THE '878 PATENT**

Although Patent Owner believes that the Petition fails to show unpatentability for many reasons, this preliminary response focuses on claim 1[b] of the '878 patent.<sup>1</sup> This is because the Petition’s showing for claim 1[b] is fatally defective and

---

<sup>1</sup> Therefore, Patent Owner will not address Petitioner’s other arguments because they are unnecessary to deny institution. But one brief correction is warranted. Petitioner states that the “claims and prior art here are similar to [IPR2022-00773].” Pet. at 2.

applies to each challenged claim and ground. Accordingly, if the Board agrees with Patent Owner as to claim 1[b], institution should be denied.

**A. Claim 1[b] requires that the computer system “*determine*” that the two devices have accessed the Internet through a router via a common IP address “*during a predetermined period of time.*”**

Claim 1[b] of the '878 patent recites: “wherein determining the association in part (a) is done by using the stored association-detection information 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.” Thus, claim 1[b] requires that the computer system recited in claim 1[a] determine whether the two devices accessed the Internet via a common IP address “during a predetermined period of time.” This requires that the computer system *know* the “predetermined period of time” and then make a determination about whether or not the condition is satisfied. Merely determining that the two

---

But that IPR has no bearing to the issues here, at least because it addressed the claims of another patent (U.S. Patent No. 8,677,398). The '398 claims do not contain the language “stored association-detection information” or “predetermined period of time,” which are recited in claim 1[b] and at issue below. Further, IPR2022-00773 did not address the following prior art raised here: Laidlaw, Sitaraman, Xu, or Gerace. Thus, the institution of that IPR is not probative here. Not to mention that, there was no preliminary response filed in that IPR and the arguments in patent owner’s response were never adjudicated in light of settlement.

devices have accessed the Internet via a common IP address is insufficient. The system must also determine the temporal aspect by (a) knowing the predetermined period of time and (b) assessing whether or not the accesses occurred within that predetermined period of time period. In other words, the “determining” must be *about* the temporal aspect, and the answer to the determining question (yes or no) is contingent on whether the temporal requirement is met (yes or no).

Aspects of claim 1[b] are illustrated in the exemplary embodiment described at column 16, lines 12–45 of the '878 patent specification. In that embodiment:

instead of reporting the common IP address of STB 36 to CAS 40 relatively frequently, STB 36 can be configured to store its common IP addresses and corresponding times and dates that each of the addresses is assigned to modem 32 (and hence also to the LAN to which the STB 36 is connected). The common IP address can be periodically sampled and the sampling stored (e.g., every 1, 5, or 10 minutes, or some other suitable interval), or the specific times and dates of IP address reassignments can be stored with the corresponding IP addresses. STB 36 can be configured to periodically (e.g., every 4, 6, 12, or 24 hours, or some other suitable time interval) 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).

'878 patent (Ex. 1001) at 16:12–27.

Further, this this embodiment:

CAS 40 also can be configured to receive IP addresses and corresponding access times and dates for all visitors to an online site 50 that wishes to deliver television advertisements based on online user behavior. Online site 50 periodically reports to CAS 40 (as in FIG. 10) all IP addresses from which the online site was accessed during some preceding period, along with the corresponding times and dates. The frequency and time periods of the online site's reporting can be similar to those of the STB reporting, or they can differ substantially, as needed or desired. The two lists (one from the online site, one from the STB) of IP addresses are compared, and delivery of a television advertisement is requested if any matches are found, i.e., 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.* at 16:30–45.

Thus, in this embodiment, the “two lists” of dates and times of online accesses between two devices are compared to determine “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.” This corresponds to claim 1[b]'s requirement of determining that the two devices accessed the Internet through a common LAN

during a predetermined period of time (such as a time falling within “the corresponding dates and times” that the “common IP address[]” was “assigned to modem 32” as reported by the STB). Further, the specification teaches that the predetermined period of time is meaningful and intended to assist with delivering targeted advertisements based on online user behavior over that period of time. This “cross-matching ensures accurate delivery of the television advertisement and requires substantially less communication between the STB and the CAS.” *Id.* at 16:46–48.

**B. The Petition’s theory for claim 1[b] is deficient and fails to address claim requirements.**

Petitioner addresses claim 1[b] on pages 35–38 of the Petition. For claim 1[b], the Petition refers back to the determining step of 1[a], which it contended was met by identifying two mobile devices that are logged on and connected using the same access point/hotspot. *See* Pet. at 19 (“Under the proposed combination, therefore, identifying two mobile devices 102 that are logged on and connected using the same access point/hotspot discloses ‘**determining an association between**’” their respective device identifiers[.]”) (emphasis in original).

But the Petition fails to explain or show how the determination constitutes a determination of the required information recited in claim 1[b]. The Petition merely asserts, on pages 35–36, the determination that the two or more devices “have

separately accessed the Internet through a router of the LAN . . . via a common IP address” is satisfied by Baig. Pet. at 35. But in advancing this argument, the Petition *omits* the claim 1[b]’s claim language “during a predetermined period of time.” Thus, the purported determination Petitioner relies on has nothing to do with whether the two devices accessed the Internet via a common IP address “during a predetermined period of time.”

As to the “predetermined period of time” requirement, Petitioner addresses it in isolation, divorced from any “determination” performed by its proposed combination. This is shown on pages 37-38 of the Petition, where Petition asserts:

Finally, each mobile device has also separately accessed the Internet “*during a predetermined period of time via a common IP address.*” This is because, as explained for claim 1(a) above, the IP address of the access point 106 would have been a dynamically assigned IP address with a DHCP “lease” time during which the address remains valid. (Sitaraman, 3:42-51.) “Once the lease expires, the IP address can be ‘recycled’ and given to another machine.” (Sitaraman, 3:49-51.)

Pet. at 37–38 (emphasis in original).

At most, this is an assertion that the accesses of the two devices via a common IP address might have occurred during some “predetermined period of time.” But it is *not* an assertion that the computer system in Petitioner’s combination ever makes

such a determination. There is no allegation, as the claim requires, that the computer system “*determine[s]* 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.”

The Petition either ignores or misreads the plain language of claim 1[b]. By separating the claim requirements, the Petition is attempting to improperly rewrite the claim language and change *what* is being determined. This is shown in the following chart comparing claim 1[b] with the Petitioner’s interpretation:

| Language of Claim 1[b]                                                                                                                                                                                                | Petition’s Interpretation of Claim 1[b]                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “ <i>determine</i> that the two or more Internet-accessing electronic devices have separately accessed the Internet through a router of the LAN <i>during a predetermined period of time</i> via a common IP address” | “ <i>determine</i> that the two or more Internet-accessing electronic devices have separately accessed the Internet through a router of the LAN <del><i>during a predetermined period of time</i></del> via a common IP address<br><br>[ <i>and wherein the accesses of the two or more devices occurred during a predetermined period of time</i> ]” |

Accordingly, the Petitioner never shows (or even alleges) that the computer system in its proposed combination *determines* that the two or more devices have

accessed the Internet “during a predetermined period of time.” This deficiency is apparent from pages 35 to 38 of the Petition. And it is not cured by Petitioner’s expert declaration. For claim 1[b], Petitioner’s expert merely repeats verbatim the same argument for the “during a predetermined period of time” limitation. *Compare*, Pet. at 37-38, *with* Schmandt Declaration (Ex. 1002) at ¶ 125 (“Finally, each mobile device has also separately accessed the Internet ‘during a predetermined period of time via a common IP address, as claimed. This is because, as explained for claim 1(a) above, the IP address of the access point 106, based on well-known and industry-standard DHCP techniques, would have been a dynamically-assigned IP address with a “lease” time during which the address remains valid. (Sitaraman, 3:42-51.) ‘Once the lease expires, the IP address can b ‘recycled’ and given to another machine.’ (Sitaraman, 3:49-51.).”).

Nor is this deficiency cured in any of the Petition’s argument for evidence for claim 1[a]. For claim 1[a], the Petitioner contended that “determining an association” was met by the computer system identifying two mobile devices that are logged on and connected using the same access point/hotspot. *See* Pet. at 19–20. Petitioner did not (and could not) allege that the purported determination was based on a determination of whether accesses by the two devices occurred during “a predetermined period of time” as required by claim 1[b].

**C. The Petition fails to show that the system in its proposed combination makes a determination about whether or not the accesses occurred “during a predetermined period of time.”**

As discussed above, the Petition fails to properly analyze claim 1[b] and thus presents no evidence that the proposed combination “determines” any of the required pieces of information, especially that the devices accessed the Internet “during a predetermined period of time.” As to the arguments and evidence the Petition does present, they are insufficient and fail for many reasons.

*First*, the Petition’s allegation that Baig’s “mobile devices 102 would . . . have accessed the Internet via access point 106 during ‘a predetermined period of time via a common IP address’” is unsupported and outside of any disclosure in Baig. It is also a hindsight-driven attempt to reconstruct the claims. Regardless, it is fatally flawed because the Petition never alleges that (or explains how) Baig would *determine* whether or not the condition is met. Under Petitioner’s theory, any purported determination in Baig would at most be about whether each device had previously connected via common IP address. There is no concept of a “predetermined period of time” and no consideration that the accesses of both devices must be *within* a specified period of time. Baig is not asking the same question and thus not performing the same determining as the claim.

Thus, even if one could after-the-fact contrive some “period of time” that covers accesses by the two devices, that would not matter. That is because the

condition would be met by accident, and *not* as a result of any determination or intentional action performed by the Baig system. That system does not know and is not using the “predetermined period of time” as part of any determination step.

*Second*, the Petition wrongly asserts that the “mapping of DHCP lease times to the claimed ‘predetermined period of time’ is entirely consistent with the ’878 patent.” This is incorrect and misleading. The quoted portion appears in the background and merely states that the “assignment of [an] IP address *usually* expires after a predetermined period of time[.]” ’878 patent (Ex. 1001) at 4:22–44. This is part of the background of how DHCP works and is not remotely about the claimed invention or in the context of the determining step under claim 1[b]. Further, it states that assignment of an IP address usually expires after some time but is not always the case. There is no suggestion in the ’878 patent of DHCP lease times as satisfying the determining step of claim 1[b].

Indeed, when the ’878 patent does discuss about how the invention works, it makes clear that the predetermined period of time is something known by the *system* in making the determination. *See* ’878 patent (Ex. 1001) at 14:9-15:12 (discussing how the system can revise potential time intervals to increase accuracy of associations); *see also* 16:12–48. There is no evidence from the ’878 patent that DHCP lease times that the system may not know or care about is used to meet the “determining” step of claim 1[b].

*Third*, there is no explanation, argument, or evidence that the purported Baig combination would use DHCP lease times in this way. There is no evidence that Baig knows or care about what the DHCP lease times are or would use that as part of the purported determination. Indeed, the system would not be able to determine whether devices were connected during the identified “predetermined period of time,” because DHCP leases are often unpredictable and extended from the assignment period. The '878 Patent also acknowledges that while IP addresses may be assigned for a fixed time, the assignment of an IP address may *not* be terminated at the end of the time and may be extended or renewed. That is why '878 patent never describes DHCP lease times as the claimed “predetermined period of time” in the embodiment in column 16. Using DHCP lease times in that way would run counter to that embodiment’s goal of cross-matching that “ensures accurate delivery of the television advertisement and requires substantially less communication between the STB and the CAS.” '878 patent (Ex. 1001) at 16:46–48.

At bottom, there is no support or rational undermining for Petitioner’s DHCP lease times theory.

## **VII. THE PETITION’S DEFICIENCY FOR CLAIM 1[b] APPLIES TO ALL GROUNDS AND ALL CHALLENGED CLAIMS**

The Petition’s deficiency for claim 1[b] discussed above applies to all independent claims challenged in the Petition (claims 1, 13, and 22). As Petitioner

notes, claims 13 and 22 are substantially similar except written as a computer system claim or an article claim. *See* Pet. at 52–53. The same deficiency for claim 1[b] also applies for the dependent claims (claims 2, 8–10, 14, and 19) challenged under Ground 1. As to Grounds 2–4, they each depend on Ground 1 and challenge other dependent claims (claims 3–4, 6–7, 10–12, 15–18, 20–21, and 23) based on the combination of additional references. *See* Pet. at 4.

## VIII. CONCLUSION

Accordingly, the Petition has failed to establish a reasonable likelihood of unpatentability for any ground or challenged claim. Institution should be denied.

Date: November 24, 2023

Respectfully submitted,

/ Reza Mirzaie /  
Reza Mirzaie, Reg. No. 69,138  
Russ, August & Kabat  
12424 Wilshire Blvd., 12th Floor  
Los Angeles, CA 90025

*Counsel for Patent Owner*

**CERTIFICATION REGARDING WORD COUNT**

Pursuant to 37 C.F.R. §42.24(d), Patent Owner certifies that there are 3,757 words in this paper excluding the portions exempted under 37 C.F.R. §42.24(a)(1).

Date: November 24, 2023

/ Reza Mirzaie /  
Reza Mirzaie, Reg. No. 69,138  
Russ, August & Kabat  
12424 Wilshire Blvd., 12th Floor  
Los Angeles, CA 90025

*Counsel for Patent Owner*

**CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e)(1))**

I certify that the above document was served on counsel for Petitioner by filing this document through the Patent Trial and Appeal Case Tracking System, as well as delivering a copy by e-mail upon the following counsel of record:

| <i>Lead Counsel for Petitioner</i>                                                                                                                                                                                                                    | <i>Backup Counsel for Petitioner</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Heidi L. Keefe (Reg. No. 40,673)<br><a href="mailto:hkeefe@cooley.com">hkeefe@cooley.com</a><br><br>COOLEY LLP<br>ATTN: Patent Group<br>1299 Pennsylvania Ave. NW,<br>Suite 700<br>Washington, DC 20004<br>Tel: (650) 843-5001<br>Fax: (650) 849-7400 | Phillip E. Morton (Reg. No. 57,835)<br><a href="mailto:pmorton@cooley.com">pmorton@cooley.com</a><br>Andrew C. Mace (Reg. No. 63,342)<br><a href="mailto:amace@cooley.com">amace@cooley.com</a><br>Mark R. Weinstein (Admission pro hac<br>vice to be requested)<br><a href="mailto:mweinstein@cooley.com">mweinstein@cooley.com</a><br><br>COOLEY LLP<br>ATTN: Patent Group<br>1299 Pennsylvania Ave. NW,<br>Suite 700<br>Washington D.C. 20004<br>Tel: (202) 728-7055<br>Fax: (202) 842-7899 |

Date: November 24, 2023

Respectfully submitted,

/ Reza Mirzaie /

Reza Mirzaie, Reg. No. 69,138  
Russ, August & Kabat  
12424 Wilshire Blvd., 12th Floor  
Los Angeles, CA 90025

*Counsel for Patent Owner*