

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC, CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS,
VERIZON CORPORATE SERVICES GROUP INC.,
T-MOBILE USA, INC., SPRINT LLC F/K/A SPRINT CORP.,
and AT&T SERVICES, INC.,
Petitioner,

v.

HEADWATER RESEARCH LLC,
Patent Owner.

IPR2024-00945
Patent 9,215,613 B2

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

No.	Description
Ex. 2001	Declaration of Erik de la Iglesia in support of Patent Owner's Preliminary Response
Ex. 2002	<i>Curriculum Vitae</i> of Erik de la Iglesia
Ex. 2003	<i>Headwater Research LLC v. AT&T Services, Inc. et al.</i> , No. 2:23-cv-00397 (lead case), Docket Control Order, Dkt. No. 41 (E.D. Tex. Dec. 27, 2023)
Ex. 2004	<i>Headwater Research LLC v. T-Mobile USA, Inc. et al.</i> , No. 2:23-cv-00377, Consolidation Order, Dkt. No. 25 (E.D. Tex. Nov. 2, 2023)
Ex. 2005	<i>Headwater Research LLC v. T-Mobile USA, Inc. et al.</i> , No. 2:23-cv-00379 (lead case), No. 2:23-cv-00377 (member case), Docket Control Order, Dkt. No. 42 (E.D. Tex. Dec. 27, 2023)
Ex. 2006	Federal Court Management Statistics, Eastern District of Texas, 2018-2023
Ex. 2007	<i>Headwater Research LLC v. Cellco Partnership d/b/a Verizon Wireless et al.</i> , No. 2:23-cv-00352, Complaint for Patent Infringement, Dkt. No. 1 (E.D. Tex. July 28, 2023)
Ex. 2008	<i>Headwater Research LLC v. AT&T Services, Inc. et al.</i> , No. 2:23-cv-00397, Complaint for Patent Infringement, Dkt. No. 1 (E.D. Tex. Sept. 1, 2023)
Ex. 2009	<i>Headwater Research LLC v. T-Mobile USA, Inc. et al.</i> , No. 2:23-cv-00377, Complaint for Patent Infringement, Dkt. No. 1 (E.D. Tex. Aug. 23, 2023)
Ex. 2010	<i>Headwater Research LLC v. Cellco Partnership d/b/a Verizon Wireless et al.</i> , No. 2:23-cv-00352, Cellco Partnership d/b/a Verizon Wireless Proof of Service, Dkt. No. 7 (E.D. Tex. Aug. 3, 2023)
Ex. 2011	<i>Headwater Research LLC v. Cellco Partnership d/b/a Verizon Wireless et al.</i> , No. 2:23-cv-00352, Verizon Corporate Services Group Inc. Proof of Service, Dkt. No. 8 (E.D. Tex. Aug. 7, 2023)

No.	Description
Ex. 2012	<i>Headwater Research LLC v. AT&T Services, Inc. et al.</i> , No. 2:23-cv-00397, AT&T Services, Inc. Proof of Service, Dkt. No. 18 (E.D. Tex. Sept. 14, 2023)
Ex. 2013	<i>Headwater Research LLC v. T-Mobile USA, Inc. et al.</i> , No. 2:23-cv-00377, Sprint Corp. Proof of Service, Dkt. No. 21 (E.D. Tex. Sept. 7, 2023)
Ex. 2014	<i>Headwater Research LLC v. Cellco Partnership d/b/a Verizon Wireless et al.</i> , No. 2:23-cv-00352, Plaintiff Headwater Research LLC’s Amended Disclosure of Asserted Claims and Infringement Contentions (excerpted) (E.D. Tex. served Jan. 12, 2024)
Ex. 2015	<i>Headwater Research LLC v. T-Mobile USA, Inc. et al.</i> , No. 2:23-cv-00377, T-Mobile USA, Inc. Proof of Service, Dkt. No. 17 (E.D. Tex. Sept. 1, 2023)
Ex. 2016	<i>Headwater Research LLC v. AT&T Services, Inc. et al.</i> , No. 2:23-cv-00397 (lead case), Plaintiff Headwater Research LLC’s Disclosure of Asserted Claims and Infringement Contentions (E.D. Tex. served Nov. 20, 2023)
Ex. 2017	<i>Headwater Research LLC v. T-Mobile USA, Inc. et al.</i> , No. 2:23-cv-00379 (lead case), No. 2:23-cv-00377 (member case), Plaintiff Headwater Research LLC’s Disclosure of Asserted Claims and Infringement Contentions (excerpted) (E.D. Tex. served Mar. 19, 2024)
Ex. 2018	<i>Headwater Research LLC v. Cellco Partnership d/b/a Verizon Wireless et al.</i> , No. 2:23-cv-00352, Defendants’ Corrected P.R. 3-3 Invalidity Contentions (E.D. Tex. served Jan. 8, 2024)
Ex. 2019	<i>Headwater Research LLC v. AT&T Services, Inc. et al.</i> , No. 2:23-cv-00397 (lead case), Defendants’ Preliminary Invalidity Contentions (E.D. Tex. served Feb. 2, 2024)
Ex. 2020	<i>Headwater Research LLC v. T-Mobile USA, Inc. et al.</i> , No. 2:23-cv-00379 (lead case), No. 2:23-cv-00377 (member case), Defendants’ P.R. 3-3 Invalidity Contentions (E.D. Tex. served Jan. 16, 2024)
Ex. 2021	International Publication No. WO 2006/012610 to Rao et al. (“Rao-WO”)
Ex. 2022	Redline of the text of Rao (Ex. 1004) and Rao-WO (Ex. 2021)
Ex. 2023	U.S. Patent No. 8,825,109 to Montemurro et al. (“Montemurro Patent”)

No.	Description
Ex. 2024	Redline of the text of Montemurro (Ex. 1005) and the Montemurro Patent (Ex. 2023)
Ex. 2025	Your Cell Phone Company's Dirty Little Secret (Feb. 10, 2010) (<i>available at</i> https://money.cnn.com/2010/02/10/technology/cell_phone_bill/index.htm)

I. INTRODUCTION

The Board should deny institution of *inter partes* review (“IPR”) of U.S. Patent No. 9,215,613 (“the ’613 patent”) for two independent reasons.

First, the Petition should be denied on the merits. All challenged claims require a system configured to selectively allow or deny Internet service activities based on at least two different classifications: (1) a classification of “a wireless network to which the device *currently* connects in order to communicate data,” and (2) a classification of whether a particular application is interacting in the foreground. *See* Claim 1, 106:5-25.¹ However, the Petition fails to show that any individual reference discloses this requirement, and also fails to propose any obvious modification to the prior art that would have been configured to satisfy that requirement. Accordingly, the Petition fails to show that any challenged claims should be found unpatentable.

Second, the Board should exercise its discretion to deny the Petition in light of parallel district court litigation involving the same patent, the same parties, the same claims, and overlapping art as relied upon by the Petition. The district court cases involving five of the six Petitioners are at an advanced stage, and the parties and the district court have already invested significant time and resources in those cases. Indeed, by the time the Board reaches an institution decision in this

¹ All emphases herein are added unless otherwise specified.

proceeding, claim construction will be complete in all three parallel cases; depending on the case, fact discovery either be complete or very near completion. And the district court trials also are set to take place *about seven months before* the deadline for any final written decision in this proceeding. The Petition also fails to offer any stipulation, let alone a *Sotera* stipulation, here. All six *Fintiv* factors favor a discretionary denial.

For either or both of these independent reasons, institution should be denied.

II. OVERVIEW OF THE '613 PATENT

At a high level, the '613 patent is generally directed to using a differential traffic control policy to selectively allow or deny activities by or on behalf of an application based, *inter alia*, two different classifications: a classification of a wireless network, and a classification of whether the application is interacting with the user in the device user interface foreground. Ex. 2001, ¶¶28-32.

More specifically, the only independent claim (Claim 1) recites:

[1.0]² 1. A wireless end-user device, comprising:

[1.1] a wireless wide area network (WWAN) modem to communicate data for Internet service activities between the device and at least one WWAN, when configured for and connected to the WWAN;

² Throughout this response, Patent Owner uses the limitation numbering proposed by the Petition's claim listing. *See* Pet. viii-xii.

[1.2] a wireless local area network (WLAN) modem to communicate data for Internet service activities between the device and at least one WLAN, when configured for and connected to the WLAN;

[1.3] a non-transient memory to store

[1.3.1] a differential traffic control policy list distinguishing between a first one or more applications resident on the device and a second one or more applications and/or services resident on the device, and

[1.3.2] a differential traffic control policy applicable to at least some Internet service activities by or on behalf of the first one or more applications;

[1.4] an interface to allow a user to augment the differential traffic control policy for the first one or more applications but not for the second one or more applications and/or services; and

[1.5] one or more processors configured to

[1.5.1] *classify a wireless network* to which the device currently connects in order to communicate data for Internet service activities as at least one of a plurality of network types that the device can connect with,

[1.5.2] classify whether a particular application capable of both

[1.5.2.1] interacting with the user in a user interface foreground of the device, and

[1.5.2.2] at least some Internet service activities when not interacting with the user in the device user interface foreground,

[1.5.2.3] is interacting with the user in the device user interface foreground, and

[1.6] *selectively allow or deny one or more Internet service activities* by or on behalf of the particular application *based on* whether or not the particular application is one of the first one or more applications, the differential traffic control policy, including any applicable user augmentation of the differential traffic control policy, and *the classifications performed* by the one or more processors.

Ex. 1001, Claim 1.

As explained by the '613 patent, this solution allows the system to prevent particular applications from accessing a modem (and thus prevent them from consuming any network resources) while running in the background:

Advantageously, the differential network access control engine can restrict network access of a particular service usage activity when a condition is satisfied, such as when the service usage activity is a background activity.

...

In an illustrative example, the device 2700 blocks chatter for an application running in the background that is attempting to report device or user behavior. The application traffic prioritization engine 2710 determines that the chatter has **zero priority, such that the network service consuming application 2702 is prevented from consuming any resources**. The user can be sent a notification by the application traffic override engine 2718 that **their control policy prohibits the application from consuming network resources**, but that the user can opt to deviate from the control policy if they are willing to pay for the consumed resources. If the user is willing to pay for the

resources, traffic can be sent at a certain rate from the application traffic cache 2716 through the network interface 2720, or perhaps sent without using the application traffic cache 2716.

Ex. 1001, 102:12-37.

Accordingly, the invention of the '613 patent allows the system to not merely decrease the priority of service activities corresponding to an application running in the background, but to selectively deny those service activities in their entirety, based on the specific wireless network that is currently connected to and based on the application's background status. Ex. 2001, ¶¶30-31.

Preventing services from background activities from consuming *any* network resources is especially important in the context of WWAN connections, because as the '613 patent recognizes, “network resources” over WWAN connections typically incur a cost that the user may be charged for. *See generally* Ex. 2025 at 1 (February 10, 2010 article describing “two data plans” offered near the priority date of the '613 patent: “\$10 for up to 25 megabytes or \$20 for up to 75 megabytes”). As such, the '613 patent allows a network traffic control policy to prevent service activities from applications that are running in a background state from consuming *any* of these valuable network resources unless, for example, “the user is willing to pay for the resources.” Ex. 1001, 102:23-37; Ex. 2001, ¶32.

III. LEVEL OF ORDINARY SKILL IN THE ART

The Petition proposes that a POSITA in the field of the '613 patent “would have had at least a bachelor’s degree in computer science, computer engineering, or a similar field, and approximately two years of industry or academic experience in a field related to computer software development and/or computer networking. Work experience can substitute for education, and additional education can substitute for work experience.” Pet. 3 (internal citations omitted). For purposes of this Preliminary Response, Patent Owner does not challenge that definition.

IV. CLAIM CONSTRUCTION

The Petition states that “[n]o terms require construction to resolve this Petition.” Pet. 3. For purposes of this Preliminary Response, Patent Owner agrees that no formal claim construction is necessary.

V. THE PETITION FAILS TO SHOW A REASONABLE LIKELIHOOD OF UNPATENTABILITY FOR ANY CHALLENGED CLAIM.

Claim 1 (from which all challenged claims depend) recites, in part, “one or more processors configured to... *classify a wireless network to which the device **currently** connects in order to communicate data...., classify whether a particular application... is interacting with the user in the device user interface foreground, and **selectively allow or deny one or more Internet service activities** by or on behalf of the particular application **based on... the classifications** [plural] **performed**.*

In other words, all challenged claims require one or more processors configured to make a selective allowance or denial decision for at least one Internet

service activity corresponding to an application based on *both* of two classifications:

(1) a classification of a wireless network to which the device *currently* connects, *and*
(2) a classification of whether the application is interacting with the user in the device interface foreground. These requirements are recited in claim limitations [1.5] (including subparts) and [1.6]. Because the first “classification” is a classification of a network “to which the device *currently* connects,” the selective denial or allowance of an Internet service activity must occur during an active network connection (and must also be based on a foreground classification). Ex. 2001, ¶¶34-35.

The Petition’s limitation [1.6] analysis contends that the “selectively allow or deny” requirement being “based on whether the associated application is operating in the background or the foreground” is taught by the prior art “as explained, *supra*, [1.5.2].” Pet. 31-32. Other than its reference to the Petition’s analysis of limitation [1.5.2], the Petition provides no other analysis as to how the prior art discloses this particular requirement of limitation [1.6]. *See id.*

And the Petition’s incorporated-by-reference analysis of limitation [1.5.2], the Petition relies on teachings of both Rao and Freund. *See* Pet. 26-28 (not affirmatively relying on any teachings of Montemurro). As explained below, however, these references do not disclose or render obvious “selectively... deny[ing] one or more Internet service activities... based on the classifications” of “a wireless network to which the device currently connects” and “whether a particular application... is

interacting with the user in the device user interface foreground,” as all claims require. To the extent they do teach selective allowance / denial on the basis of a foreground classification (which Patent Owner does not concede), it is not in a manner that would have been able to (or would have been obvious to) be combined with other references to arrive at the broader claim language. Ex. 2001, ¶36.

A. Rao does not disclose selective denial based on a “foreground” classification and based on a classification of “a wireless network to which the device currently connects.”

The only discussion of Rao explicitly relied on by the Petition for limitation [1.6]’s recitation of “selectively allow or deny one or more Internet service activities” is Rao’s teaching that certain packets can be discarded during a network disruption, Rao’s teaching that it can “drop” or “accept” packets, and Rao’s teaching that certain packets may be deprioritized while others are “immediately allow[ed].” *See* Pet. 28-29.

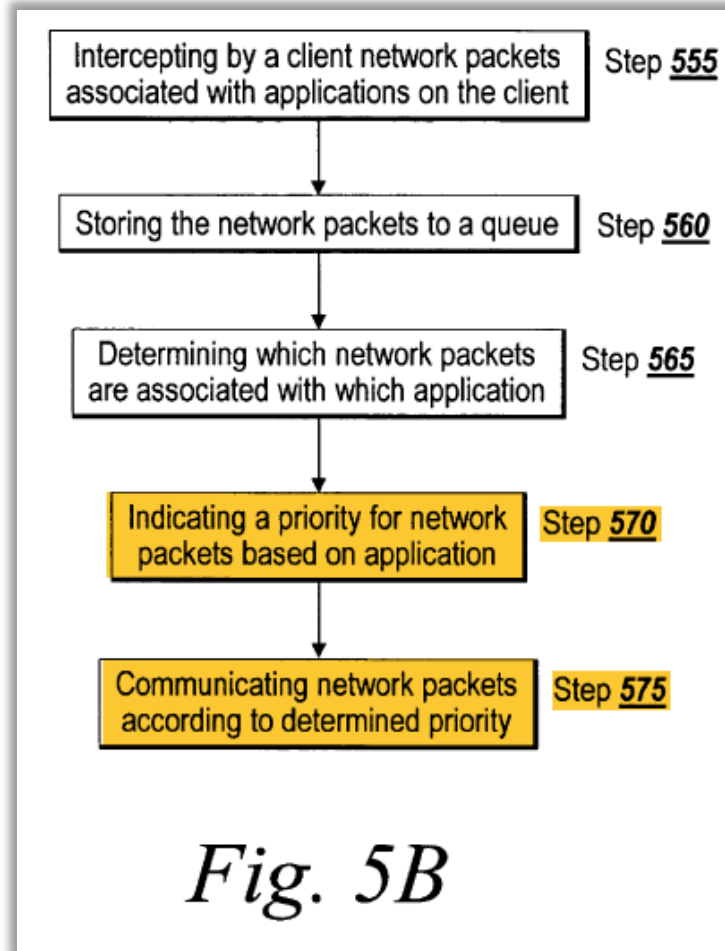
These teachings fall into two categories: Rao’s teachings that certain packets should be prioritized over other packets, and Rao’s teachings that certain packets may be “dropped” or “discarded.” As discussed below, none of Rao’s teachings in either category disclose (or render obvious in the proposed combination) the claimed “selective[] allow[ance] or den[ial]” of service activities based on both of the claimed classifications. *See* Ex. 2001, ¶¶37-66.

1. Rao’s “deprioritization” of packets cannot constitute selective allowance or denial as the claims require.

The Petition relies on Rao’s prioritization scheme as constituting a selective denial of Internet service activities. *See* Pet. 29. Specifically, the Petition asserts that Rao teaches “teaches deprioritizing some packets while immediately allowing others,” and the Petition alleges that “this de-prioritization is at least a temporary *denial*.” Pet. 29.

Notably, however, Rao teaches that by deprioritizing a packet (which may depend at least in part on “whether an application is running in the foreground or the background”—Ex. 1004, ¶182), that packet is placed into a queue of a certain priority, and that packet will be transmitted. Ex. 2001, ¶¶39-42.

For instance, as shown in Rao’s FIG. 5B (reproduced below), after packets are assigned a priority “based on application” in step 570, those network packets are then communicated over the network in step 575:



Rao, FIG. 5B (annotated). Rao’s claims also make clear that even when a packet may have lower priority than other packets, that lower-priority packet is nevertheless eventually communicated via the modem. *See* Ex. 1004 at Claim 4 (only preventing a lower-priority packet from being communicated “*ahead of*” higher priority packets); *id.* Claim 5 (discussing “holding” a deprioritized network packet, and then “releasing” that hold “upon communication” of certain higher priority packets); Ex. 2001, ¶41.

In other words, Rao teaches that the goal of assigning a packet a particular priority (even a low priority) is to ultimately *transmit* the packet. Accordingly, assigning a packet a low priority does not constitute a selective *denial* of that packet as the Petition suggests. *See* Pet. 29; Ex. 2001, ¶42.

Appearing to acknowledge that Rao’s queuing of packets for eventual transmission (i.e., delaying those packets) does not “deny” those packets under the ordinary understanding of that word, the Petition alleges that that queuing low-priority packets “is at least a *temporary* denial because packets are prevented from accessing network resources while higher-priority packets are being transmitted.” Pet. 29. The Petition’s implicit argument is that if packets are prevented from accessing network resources for any period of time (i.e., temporarily delayed), that temporary delay constitutes a selective decision to “deny” those packets as the claim recites. This argument fails, because it is not only contrary to a POSITA’s understanding, but also directly inconsistent with Petitioner’s own allegations with regard to other aspects of Rao. Ex. 2001, ¶¶43-44.

As an initial matter, the idea that *delay* in packet transmission constitutes *denial* of the packet is contrary to the plain meaning of “deny[ing]” an activity or a packet. A POSITA would understand that mere “delay” in actually transmitting a packet does not *deny* that packet, because under that logic, *all* packets would be denied because there is delay in any real-world system. *See, e.g.*, Ex. 1004, FIG. 5B

(showing sequential steps of first, storing “network packets to a queue” in step 560, then determining “a priority for network packets based on application” in step 570, and only then actually “[c]ommunicating [those] network packets according to determined priority” in step 575); Ex. 2001 ¶44 (explaining that “all real-world systems incur some delay between packet formation and packet transmission”).

And even if the Petition’s implicit interpretation of “deny” is somehow limited to placing a packet in a queue while other packets are first transmitted, the overwhelming majority of transmitted packets within a system would be “denied” under the Petition’s theory, because most packets in a queue-based system will need to wait for previous-queued packets to be transmitted. This is contrary to the understanding of a POSITA, wherein packets that are eventually transmitted would be considered to be “allowed” rather than “denied” due to temporary delay. It is also contrary to the teachings of the ’613 patent, which draws a distinction between “delaying” and “denying.” Ex. 1001, 62:23-25 (discussing a “mechanism for allowing, denying, delaying, and/or otherwise controlling network access”); *see also, e.g., id.*, 68:20-29 (discussing options including “block network access” and “delay network access”); 86:44-41 (control settings including “allow/block, delay, throttle” etc.); 91:6-8 (“[A]n intercepted request can be copied (e.g., to memory) and queued (e.g., delayed or throttled) or dropped (e.g., blocked).”); Ex. 2001, ¶45.

The fact that queuing or delaying a packet does not constitute *denial* of that packet is confirmed even *by the Petition itself*. Specifically, the Petition earlier contends that a “POSA would have understood that... packets queued and transmitted are ‘*allowed*.’” Pet. 28-29; *id.* at 29 (equating *queuing* of a packet with *allowing* that packet by contending: “Rao ‘selectively’ *denies* and *allows* [packets] because the policies ‘determine which network packets to *queue* and/or *discard*.’”). This is directly contrary to the Petition’s theory for Rao’s prioritization scheme, in which packets that are queued for transmission are supposedly *denied*, and the Petition does not even attempt to defend its position that queued packets are both allowed *and* denied.

Contrary to the Petition’s inconsistent conclusion that the *same* packets in Rao’s system would be both allowed and denied, a POSITA would understand that so long as a packet is transmitted, that packet has been “allowed” by the system and has not been “denied.” There may be delay before a packet is ultimately transmitted, but that delay does not constitute a denial. Ex. 2001, ¶¶46-47.

Accordingly, Rao’s prioritization decisions (in which packets are ultimately transmitted) cannot constitute a decision regarding selective allowance/denial as claimed. Ex. 2001, ¶48.

2. Rao’s “discard” or “drop” decisions for packets cannot meet the claim language, even in combination with other references.

Rao further has various discussions of dropping or discarding network packets, in addition to its embodiments regarding prioritization (e.g., discussed in Section V.A.1 above). As discussed below, none of these teachings of Rao support the Petition’s invalidity theory. *See* Ex. 2001, ¶¶49-66.

a. Rao’s discarding of certain packets during network disruption does not meet the claim requirements, because there is no “network to which the device currently connects.”

Other than Rao’s discussion of packet prioritization discussed above in Section V.A, the only discussion of Rao explicitly relied on by the Petition for limitations [1.5] and [1.6] is Rao’s teaching that certain packets can be discarded *during a network disruption*. *See* Ex. 1004 (“Rao”) ¶[0207]; Pet. 28 (“Rao, for example, teaches that based on its policy, the system may ‘discard network packets (internet service activities), particularly during a network disruption, while queuing other packets to be transmitted.’”).

The Petition is clear that under its theory, selective queuing of a packet constitutes *allowing* the packet, whereas selective *discarding* of the packet constitutes *denying* the packet. Pet. 29 (equating *queuing* of a packet with *allowing* that packet by contending: “Rao ‘selectively’ *denies* and *allows* [packets] because the policies ‘determine which network packets to *queue* and/or *discard*.’”).

Relevant to the Petition’s theory, the claims require that the processors be configured to “selectively allow or deny one or more Internet service activities...

based on... the classifications” including a “*classification of] a wireless network to which the device **currently** connects in order to communicate data.*” In other words, the decision to selectively deny or allow a packet in the challenged claims must be based, at least in part, on some classification of a **currently connected** network. See Ex. 2001, ¶¶50-52.

For its part, Rao is clear that *during a network disruption*, the device is **not connected** to the relevant network; for instance, Rao explicitly contrasts the “network [being] available” with the occurrence of a “network disruption.” Ex. 1004, ¶81 (“[T]he network communications are queued during the network disruption and transmitted **once the network is available.**”). A POSITA would have understood queuing packets “during [a] network disruption” and transmitting those packets “once the network is available” to mean that “network disruption” is an indication that the network is **not** available—i.e., there is no current network connection as the challenged claims require. Ex. 2001, ¶53; *see also* Ex. 1001, 59:38-44 (stating that a “connection is established” only when “one of the networks is available”).

Accordingly, it would be **impossible** for Rao’s selective discarding of packets during a network disruption to be “based on the classifications” including a classification of “a wireless network to which the device *currently* connects”—even in combination with a reference such as Montemurro that allegedly takes into

account network type in performing selective allowance/denial decisions—because during a network disruption there *is no* wireless network to which the device currently connects that could even potentially be taken into account in the selective allowance/denial decision. Ex. 2001, ¶54. The Petition’s reliance on alleged allowance/denial during network disruption (i.e., when there is no connection over which data can be sent) is contrary to the invention of the ’613 patent, which makes its selective allowance/denial decisions during an *active* wireless network connection (i.e., when data can actually be transmitted across the wireless network). Ex. 1001, claim 1 (reciting processor(s) configured to “classify a wireless *network to which the device currently connects in order to communicate data* for Internet service activities,” and “selectively allow or deny one or more Internet service activities... based on... the classification[.]”); Ex. 2001, ¶55. Accordingly, *even as modified in combination with other references*, Rao’s decision to discard packets during a network disruption (i.e., when there is no available network and thus no “wireless network to which the device currently connects in order to communicate data”) *could not* be the result of one or more processors “selectively allow[ing] or deny[ing]... activities... based on... the classifications” which include a classification of “a wireless network to which the device *currently* connects in order to communicate data,” as claim 1 requires. In order for Rao’s discarding of network packets during network disruption to meet this requirement, it would need to be

modified to, at least, discard network packets in that same manner during time periods *other than* during network disruption (Ex. 2001, ¶56), which is not disclosed by Rao or a modification proposed by the Petition.

b. Rao’s “drop[ping]” of certain “unwanted” packets also does not satisfy the claim requirements because it is not based on any foreground classification.

Although the Petition does not explicitly mention Rao’s dropping “unwanted” packets, it does provide a brief citation to that teaching of Rao. See Pet. 28 (citing Ex. 1004, ¶¶102-05, and explaining that this portion of Rao describes a “decision to ‘drop’ or ‘accept’ packets”).

The *only* cited paragraph of Rao that discusses a decision to “drop or accept... network packets” is Rao at ¶102, which is reproduced in its entirety below:

The filter 322 may use a filter table for filtering packets. The filtering table is used to determine what action to take against packets, such as packets intercepted by the packet capture mechanism 365. *The filter 322 can inspect the contents of the packets, such as routing information, to determine the action to take based on the filtering table.* In some embodiments, the *filter 322 may drop or accept the network packets depending on their content.* In other embodiments, the filter 322 may route the network packets to the agent 326 based on the packets content and/or the filtering table. *The filter table may also be used to ensure that unwanted packets are discarded.* The filter 322 may be used to *deny access to particular protocols or to*

*prevent unauthorized access from remote computers by **discarding packets to specified destination addresses.***

Ex. 1004, ¶102.

A POSITA would understand the above teaching to relate to discarding “unwanted” packets based on three distinct categories of information—the “content” of the packet, the packet’s “protocols,” and the packet’s “destination address[.]” *Id.* None of these are based in any part on whether an application is running in the foreground (as limitation [1.6] would require). Ex. 2001, ¶¶58-62.

First, Rao teaches that packets may be discarded “depending on their content” (e.g., “routing information”). *Id.* But there is no teaching in Rao or allegation by the Petition that the “content” of a packet would indicate whether the packet was issued by an application running in the background. Indeed, an application may transmit a packet having a given content (e.g., routing information) while running in the foreground; but the application would transmit a packet having *identical* content (e.g., routing information) while running in the background. Because the foreground or background status of an application in Rao does not affect the content of packets issued by that application, a decision of whether or not to drop packets in this scenario could not constitute selectively allowing or denying Internet service activity based at least in part on a foreground classification as required by limitation [1.6]. Ex. 2001, ¶60.

Rao also teaches that packets may be deemed “unwanted” and thus be discarded if they are using “particular protocols” and packets directed to “specified destination addresses.” Ex. 1004, ¶102. But again, neither what protocol is used for communication nor the destination address of a given packet depends on (or is even alleged to depend on) whether the application that issued the packet was running in the background or foreground. For instance, applications can use the same protocols and destination addresses when running in either the foreground or the background. Accordingly, a decision of whether to drop or accept packets based on a specified protocol or destination address cannot constitute the allowance or denial based in part on a foreground classification as the claims require. Ex. 2001, ¶61.

More generally, there is no allegation or disclosure that packets would *ever* be considered “unwanted packets” within the context of the embodiment of Rao’s ¶102 based on a determination that the issuing application was not classified as “foreground.” Ex. 2001, ¶62. While Rao *does* teach that packets generated by background applications may be given lower priority than packets generated by foreground applications (*see, e.g.*, Ex. 1004, ¶¶[0046], [0189]), this is in the context of assigning foreground packets a higher queuing priority than background packets. Rao never suggests *dropping* or *discarding* packets of an application based on a determination that the application is running in the background outside the context of “network disruption” (where no current network connection exists).

Indeed, Rao is explicit that “one ordinarily skilled in the art will recognize and appreciate that the remote access client of the present invention *will communicate the network packets from the queues* in a manner according to or consistent with the determined priorities” (Ex. 1004, ¶194), and Rao never suggests that its system is configured to *drop* or *discard* low-priority packets (i.e., packets that have been assigned to a low-priority queue) when there is no network disruption. Ex. 2001, ¶63.

c. Rao’s discarding of packets due to “network factors” is not relied upon by the Petition, and also does not satisfy the claim requirements.

Although the Petition does not rely on it, there is one more instance where Rao teaches discarding packets, specifically due to “network[] factors, such as congestion, even though the network packets may have a higher priority than other network packets in a queue.” Rao ¶[0195]. The Petition, presumably, does not rely on this teaching of Rao because it would be inconsistent with the Petition’s invalidity theory. Ex. 2001, ¶64.

Specifically, the Petition makes clear that under its Rao-based invalidity theory, a POSITA would have believed it advantageous to “prevent background activity from being processed ahead of foreground activity” (Pet. 21); in other words, the Petition contends that a POSITA would have assigned *background* activities a *lower* priority than foreground activities. *See also* Pet. 50 (alleging a POSITA would

have found it obvious for a VOIP app to have its priority downgraded from “high priority” to “lowest priority” when its status changes from a foreground application to a background application).

However, Rao teaches that in the case of network congestion, “*higher priority*” packets may be discarded over lower-priority packets. Ex. 1004, ¶195 (“[T]he remote access client 120 may throttle back or not communicate network packets related to other network[] factors, such as congestion, even though the network packets may have a higher priority than other network packets in a queue 540a-540n.”). A POSITA would thus understand that the decision to “not communicate network packets” under these circumstances is made *independently* of Rao’s prioritization policy. Ex. 2001, ¶¶65-66. The Petition, of course, does not suggest that a decision to “not communicate” packets in this manner would rely on Rao’s prioritization policy or otherwise depend in any way on a foreground or background classification, because the Petition does not even address this teaching of Rao.

Accordingly, Rao’s discussion of “network congestion” cannot support the Petition’s obviousness theory.

B. Freund does not cure Rao’s deficiencies, because the background/foreground teachings of Rao and Freund have inconsistent approaches to favoring foreground or background activity.

As shown above in Section V.A, Rao does not disclose a device selectively allowing / denying activity based in any part on whether an application is classified as in the foreground in any manner that could be modified to meet the remainder of the claim requirements (e.g., that the selective allowance / denial occurs based on part on a classification of a wireless network type to which the device *currently* connects).

The Petition relies on Freund to cure this deficiency. *See* Pet. 27 (relying on Freund’s “teach[ing] that it is advantageous to classify whether a particular application (and its associated internet use) is interacting with the user in the device interface foreground” in order to “facilitate[] rules limiting an employee’s ‘counterproductive Web browsing.’” Pet. 27 (quoting Ex. 1007, 10:16-43). However, as explained below, the Petition fails to explain *why* a POSITA seeking to implement a Rao-based system would look to Freund’s teachings of foreground/background classifications designed to limit an employee’s “counterproductive Web browsing.” As explained below, a POSITA would not have been motivated to do so, because directly contrary to Rao which suggests *prioritizing* foreground activity over background activity, the relevant teachings of Freund *restrict* foreground activity relative to background activity. Ex. 2001 ¶¶67-79.

1. The teachings of Rao and Freund regarding background and foreground classifications are contradictory.

As the Petition acknowledges, Rao teaches that in prioritization decisions, foreground activity should be *prioritized* over background activity. *See* Pet. 21 (discussing Rao’s explanation of benefits of “prevent[ing] background activity from being processed ahead of foreground activity”). For instance, in the Petition’s claim 16 analysis, the Petition contends that “application of the policy” would give an application a high priority when that application is classified as interacting in the foreground, but that the same application would “receive lowest priority” when it is no longer classified as in the foreground. Pet. 50.

In contrast, Freund teaches the opposite—that foreground activity should be *disfavored* relative to background activity. Ex. 2001, ¶¶70-71 The sole mention of “foreground” in Freund (and the only discussion the Petition relies on in Freund regarding foreground and background activity) teaches:

3. Monitoring and regulating time spent on the Internet

Perhaps the aspect of Internet access most important to productivity of an organization is the ability to monitor and regulate the amount of time employees spend on the Internet. Although the Internet is an increasingly important business tool, it also poses a temptation to employees for use to pursue their own private interests while seemingly working.

The Internet access monitoring system of the present invention addresses this problem by allowing an organization to monitor and control the time its employees spend on the Internet. The actual monitoring can be done in a variety of ways, including monitoring the time spend by an employee to actively interact with the Internet, monitoring the total time applications access the Internet, and/or mon[i]toring the total time particular users/workstations access the Internet. The option of employing different approaches is an important one, as no one approach will likely answer all monitoring needs of an organization.

*Consider, for example, the monitoring of time spent by an employee for "actively" interacting with the Internet. . . . Here, certain Internet applications, such as news collecting programs (e.g., PCN), access the Internet in the background while the user attends to other unrelated tasks in the foreground. The Internet access time of a user for a given day, therefore, is not necessarily equivalent to the time the user actively spends browsing Web sites. Conventional technologies cannot distinguish between this "active" versus "passive" access and therefore cannot present an accurate picture of the actual time the user has spent on on-line activities. Accordingly, it is desirable to monitor the time an employee spends "actively" interacting with the Internet, so that management goals of control[l]ing counterproductive Web browsing can be realized. In the currently-preferred embodiment, the system may be configured such that **access to the Internet which occurs in the background is not counted against the per-day time limit imposed on users.***

Ex. 1007, 9:64-10:43.

In other words, Freund teaches that a central authority within an organization will specify certain restrictions on active user Internet access. The goal of this restriction is not to *improve* user experience (as in Rao); rather, the goal is to improve “productivity of an organization” by *preventing* users from “pursu[ing] their own private interests” in the workplace. Ex. 2001, ¶72.

Moreover, Freund teaches that its system (contrary to Rao) is more *restrictive* of foreground activity relative to background activity, because “background” Internet usage “is *not* counted against the per-day time limit imposed on users,” such that only “active” (e.g., “foreground”) activity is restricted. Ex. 1007, 10:17-40. The Petition does not explain why a POSITA would have been motivated to combine these two references’ treatment of foreground/background classifications, given their opposing treatment of foreground and background activity. Ex. 2001, ¶73.

2. The Petition’s alleged motivations would not have caused a POSITA to combine the teachings of Rao with Freund in the proposed contradictory manner.

The Petition alleges several reasons why a POSITA would supposedly have been motivated to combine Rao and Freund. Even if these motivations could be motivations to combine Rao and Freund in *some* manner, that is not sufficient; the Petition must show that they would have motivated a POSITA to combine Rao with Freund in the *specific* manner proposed by the Petition. And none of the Petition’s

motivations would have justified combining Rao's and Freund's *contradictory* teachings regarding treatment of foreground activity. *See* Ex. 2001, ¶¶74-79.

First, the Petition alleges that “given *Freund's and Rao's similarities*, a POSA would have been motivated to implement Freund's teachings in Rao.” Pet. 14. However, the specific teachings relied upon regarding treatment of foreground and background activity are not similar at all—as explained by Patent Owner's expert, a POSITA would have seen those teachings as fundamentally *contradictory* in terms of how Rao and Freund favor and disfavor foreground activity, respectively. Ex. 2001, ¶75.

Second, the Petition alleges that “a POSA would have been motivated to incorporate Freund's teachings *to improve the combined system's user friendliness* (e.g., in view of Freund's detailed ‘rules wizard’ for policy configuration and its policy options)....” Pet. 14. Presumably, the Petition is referring to Freund's “user friendliness” for policy configuration here, because Freund's specific treatment of background/foreground activity is to *reduce* user friendliness by imposing restrictions on how users at work can use the system. While this purported motivation may speak to a motivation to use some sort of “rules wizard,” it does not provide a motivation to implement Freund's restrictions on foreground Internet access within Rao (which as noted above, would *decrease* user friendliness in order to provide a central authority with more control over user behavior). Ex. 2001, ¶76.

Third, the Petition alleges that “a POSA would have been motivated to incorporate Freund’s teachings (e.g., in view of Freund’s detailed ‘rules wizard’...) ... to implement the background/foreground prioritization suggested by Rao.” Pet. 14. But using Freund’s teachings “*to implement the [[foreground]³ prioritization suggested by Rao*” would not involve (or otherwise motivate) favoring *background* activity by imposing time limits on *foreground* activity as taught by Freund. Ex. 2001, ¶76.

Fourth, the Petition alleges that “the proposed combination would have had particular benefits in corporate settings where an employer may wish to monitor (and impose limits on) employees’ device use.” Pet. 14. However, this desire to “impose limits on” a user’s device usage is, again, inconsistent with the Petition’s own motivation expressed above of “*improv[ing]* the combined system’s user friendliness.” Pet. 14. Furthermore, a desire to impose limits on employee’ device usage speaks only to the benefits of implementing *Freund’s* approach in a corporate setting. It says nothing of why a POSITA would combine *Rao with Freund* in a corporate setting, or why a POSITA would have maintained Rao’s disclosures that actually *prioritize* foreground Internet activity (which Freund suggests should be *restricted* because it is “counterproductive”) in such a combination. Ex. 2001, ¶79.

³ Rao does not teach (and the Petition does not allege that Rao teaches) prioritizing background traffic over foreground traffic.

In short, the Petition provides no motivation to combine Rao’s teachings (wherein *foreground* activity should be prioritized over background activity) with Freund’s teachings that *background* activity should be prioritized by exempting that activity from usage restrictions designed to “limit[] an employee’s ‘counterproductive Web browsing.’” Pet. 27 (quoting Ex. 1007, 10:16-43). As Patent Owner’s expert explains, “if a POSITA were looking for ways to supplement Rao’s treatment of foreground activity, they would not have looked to teachings that explicitly disfavor background activities, contrary to Rao’s teachings.” Ex. 2001, ¶79.

VI. DISCRETIONARY DENIAL OF INSTITUTION IS WARRANTED.

35 U.S.C. § 314(a) gives the Board discretion to deny institution of IPR due to the advanced state of parallel district court litigation regarding the same issues. *See NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 19-21 (PTAB Sept. 12, 2018) (precedential) (“*NHK*”). The Board has set forth six factors for determining whether discretionary denial in light of such parallel litigation is appropriate, and in analyzing them, “takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5-6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”); *see also Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 7-17 (PTAB May 13, 2020) (informative) (“*Fintiv II*”); Interim Procedure for

Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (dated June 21, 2022) (“Interim Discretionary Denial Memo”).

Each of these six *Fintiv* factors weigh in favor of the Board exercising its discretion to deny institution here. For Factor 1, no stay of the parallel district court litigation has been granted or requested, and a stay is unlikely given the advanced stage of the case. For Factor 2, the district court trials will occur about seven months before the deadline for a final written decision in this proceeding. For Factor 3, largely due to Petitioners’ delay in filing the Petition, there will be much investment by the parties and the district court—by the time the Board issues its institution decision, claim construction will be complete in all three parallel cases; fact discovery will also be complete in two cases and less than a month from completion in the other. For Factor 4, there is substantial overlap in both the claims and art at issue in this proceeding and in the district court, and Petitioners offer no stipulation to quell the concerns of inefficiency and inconsistent rulings. For Factor 5, five of the six Petitioners are defendants in the parallel litigation. And for Factor 6, not only did Petitioners unduly delay in filing the Petition, but the Petition also fails to present a compelling challenge on the merits, and recycles prior art that was before the Examiner. Each of these factors is addressed in more detail below.

A. *Fintiv* Factor 1: The district court has not granted a stay, nor is there any evidence that a stay will be granted.

In the three parallel district court proceedings (the Verizon Case, the AT&T

Case, and the T-Mobile Case) involving the same challenged claims of the '613 patent, the district court has not granted a stay pending IPR in any of them. Further, none of Petitioners has requested such a stay, there is no indication they will request a stay, and there is no evidence that a stay will be granted.

Moreover, the facts here indicate that it is unlikely that the district court would grant a stay pending IPR even if this IPR were instituted, given the late stage of litigation. The parties in all three parallel cases have already exchanged infringement contentions, invalidity contentions, and claim construction disclosures; fact discovery is also well underway. Ex. 1021 at 5-6; Ex. 2003 at 4-5; Ex. 2004; Ex. 2005 at 4-5. And by the time the Board's institution decision is due in this proceeding (December 18, 2024), claim construction will be complete all of the cases, fact discovery either be closed or will be less than a month from completion, and trial will be approximately five months away. *See* Ex. 1021 at 1, 4-5; Ex. 2003 at 1, 4-5; Ex. 2005 at 1, 4-5. And trial is currently set for May 19, 2025 in the Verizon and T-Mobile Cases and June 2, 2025 in the AT&T Case—each between six and seven months before the earliest deadline for a final written decision in this IPR. Ex. 1021 at 1; Ex. 2003 at 1; Ex. 2005 at 1; *see infra* § VI.B.

Thus, even if Petitioners were to file a motion for a stay pending this proceeding, it is highly unlikely Judge Gilstrap would grant a stay at this late juncture in the case. *See, e.g., TQ Delta, LLC v. CommScope Holding Co.*, No. 2:21-cv-

00310-JRG, 2022 WL 2872993, at *4 (E.D. Tex. July 21, 2022) (Gilstrap, J.) (denying motion to stay pending IPR where, when defendant’s motion was filed, the claim construction hearing and the close of fact discovery were approaching and noting that “the parties had already invested considerable time and expense in preparing this case”); *Force Mos Tech., Co. v. Asustek Comput., Inc.*, No. 2:22-cv-00460-JRG, 2024 WL 1586266, at *3 (E.D. Tex. Apr. 11, 2024) (denying motion to stay where discovery was well underway and where, as here, the IPR petition was filed over five months after infringement contentions were served and nearly a year after the case was filed).

Where the district court litigation has not been stayed, and any stay is speculative and unlikely, allowing this IPR to proceed in parallel would be wasteful and inefficient. Factor 1 weighs against institution.

B. *Fintiv* Factor 2: The district court trials will occur approximately seven months before the deadline for a final written decision in this proceeding.

“If the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under *NHK*.” *Fintiv I* at 9.

Here, the deadline for a final written decision in this IPR is December 18, 2025, which may be extended to June 18, 2026, for good cause or in the case of joinder. 37 C.F.R. § 42.100(c). Meanwhile, the district court litigations are set for

trial on May 19, 2025 and June 2, 2025. *See* Ex. 1021 at 1; Ex. 2003 at 1; Ex. 2005 at 1. The timeframe set by the district court is consistent with the Federal Court Management Statistics for the Eastern District of Texas. *See* Interim Discretionary Denial Memo at 3 & n.4 (encouraging use of these statistics in evaluating this factor). Those statistics indicate that, over the past six years, a civil case in the district was brought to trial 19.7 months after filing. Ex. 2006 (indicating median times to trial for civil cases for the twelve-month period ending in June for 2019-2024 as 17.5, 17.7, 20.4, 24.5, 16.7, and 21.6). Here, the trials are set approximately 21-22 months after the cases were filed. *Compare* Ex. 1021 at 1; Ex. 2003 at 1; Ex. 2005 at 1 (trials set for May 19, 2025 and June 2, 2025) *with* Ex. 2007; Ex. 2008; Ex. 2009 (parallel cases filed July 28, 2023, August 21, 2023, and September 1, 2023).

Thus, the district court trials are each set to occur ***about six to seven months*** before the deadline for a final written decision, and possibly more than a year before the deadline if extended. This weighs heavily against institution. *See, e.g., Samsung Elecs. Co. v. Mojo Mobility Inc.*, IPR2023-01094, Paper 11 at 8-9 (PTAB Feb. 9, 2024) (“*Mojo*”) (denying institution when trial was set ***six months*** before the final written decision would issue); *BOE Tech. Grp. Co. v. Element Capital Commercial Co.*, IPR2023-00808, Paper 9 at 21-22 (PTAB Nov. 15, 2023) (“*BOE*”) (same); *Vector Flow, Inc. v. HID Global Corp.*, IPR2023-00353, Paper 8 at 19-20 (PTAB

July 17, 2023) (“*Vector Flow*”) (same); *Roku, Inc. v. IOEngine, LLC*, IPR2022-01551, Paper 11 and 10-11 (PTAB May 5, 2023) (“*Roku*”) (same).

Indeed, the Board has denied institution on account of even substantially smaller gaps between the final written decision and trial. *See, e.g., 10X Genomics, Inc. v. President & Fellows of Harvard College*, IPR2023-01299, Paper 15 at 16 (PTAB Mar. 7, 2024) (“*10X*”) (denying institution where “trial [is] **approximately five months** before our Final Written Decision”); *Int’l Bus. Machs. Corp. v. Digital Doors, Inc.*, IPR2023-00970, Paper 8 at 10-11 (PTAB Jan. 12, 2024) (denying institution where “trial would occur **about five months** before the statutory deadline”); *Kiosoft Techs., LLC v. Payrange Inc.*, CBM2020-00026, Paper 11 at 11-12 (PTAB Mar. 22, 2021) (denying institution when trial was **five months** before the final written decision); *Nine Energy Serv. Inc. v. NCS Multistage Inc.*, IPR2020-01615, Paper 18 at 8-9 (PTAB Mar. 24, 2011) (“*Nine Energy*”) (finding this factor favored denial of institution when trial was **five months** before the final written decision, even though there were pending motions to consolidate and transfer that could have affected the trial date if granted); *EClinicalWorks, LLC v. Decapolis LLC*, IPR2022-00229, Paper 10 at 9 (PTAB Apr. 13, 2022) (“*EClinicalWorks*”) (finding this factor weighed in favor of discretionary denial and denying institution where “the beginning of the jury trial in the WDTX Cases is roughly **one or two months** before any final decision would have been due had *inter partes* review been

instituted”); *Fintiv II* at 13 (finding this factor weighed in favor of discretionary denial and denying institution where the district court trial was scheduled to occur ***two months*** before the deadline for the Board to reach a final written decision); *NXP USA, Inc. v. Impinj, Inc.*, PGR2022-00005, Paper 17 at 9 (PTAB May 2, 2022) (“*NXP*”) (same), *reh’g denied*, Paper 20 (PTAB Aug. 25, 2022).

Petitioner implies that the Board should ignore these set trial dates because “in EDTX, multiple trials are commonly scheduled for the same date.” Pet. at 65. But the Petition presents no evidence that the trials will not proceed on the set dates, which, as noted above, is consistent with the most current time-to-trial statistics for the Eastern District of Texas. *See* Interim Discretionary Denial Memo at 3 & n.4. “[B]ased on the evidence of record, there is no evidence to suggest that trial will be delayed.” *Nine Energy* at 9; *see also NXP* at 9 (“We generally take courts’ trial schedules at face value absent some strong evidence to the contrary.”) (quoting *Fintiv II* at 13). Moreover, that two of the parallel cases are scheduled for trial on the same day is of no event—it is highly likely that either one of the cases will proceed on the May 19, 2025 set date such that issues concerning the ’613 patent will be adjudicated at that time. It is also possible that the cases could be consolidated for trial and proceed on the same date as currently scheduled.

Because the district court trials are currently set to occur about six to seven months before the earliest deadline for a final written decision in this IPR, the set

dates are consistent with current time-to-trial statistics, and there is no evidence that these dates may change, this factor weighs heavily against institution. *Fintiv II* at 13.

C. *Fintiv* Factor 3: By the time an institution decision is reached, claim construction proceedings will be complete, and fact discovery will either be closed or less than a month away from completion.

Factor 3 relates to the “amount and type of work already completed in the parallel litigation by the court and the parties *at the time of the institution decision.*” *Fintiv I* at 9 (emphasis added). For example, “if, at the time of the institution decision, the district court has issued substantive orders related to the patent at issue in the petition,” this factor favors denial. *Id.* at 9-10. “Likewise, district court claim construction orders may indicate that the court and parties have invested sufficient time in the parallel proceeding to favor denial.” *Id.* at 10.

Here, orders resulting from the November 1, November 19, and December 6, 2024 *Markman* hearings (Ex. 1021 at 4; Ex. 2003 at 3; Ex. 2005 at 3) will likely issue prior to the December 18, 2024 deadline for the institution decision; the *Markman* decisions would clearly qualify as “substantive orders.” But even if the *Markman* orders do not issue prior to the institution decision, by the time the institution decision issues, claim construction including the *Markman* hearings will be complete in all of the cases. Ex. 1021 at 4-5; Ex. 2003 at 3-4; Ex. 2005 at 3-4. Fact discovery will likewise be complete in the Verizon and T-Mobile Cases, and will be less than a month from completion in the AT&T Case. Ex. 1021 at 4; Ex.

2003 at 3; Ex. 2005 at 3.

And in the Verizon and T-Mobile Cases, the deadline for service of opening expert reports is the day after the deadline for the institution decision in this proceeding. Ex. 2003 at 3; Ex. 2005 at 3. Given that timing, the parties will undoubtedly need to expend substantial resources on these reports prior to the Board's institution decision. Moreover, those opening reports include Petitioners opening invalidity report, which is expected to overlap with the invalidity grounds presented in this IPR. *See infra* § VI.D.

All of these investments weigh strongly against institution because they ensure that this IPR cannot be an efficient alternative to district court litigation. This favors discretionary denial, and panels have found this factor to favor denial when the parallel litigation was at a similarly, or even less, advanced stage as here. *See, e.g., BOE* at 23-24 (denying institution in part because claim construction was complete and fact discovery was nearly completed); *Roku* at 12 (same); *10X* at 18 (same); *Mojo* at 9 (same).

Of course, the reason that the district court litigation will be so far along at the time of institution is because Petitioners unduly delayed in filing the Petition, filing over ten months after being served with the first district court complaint. *Compare* Pet. at 70 (dated June 7, 2024) *with* Ex. 2010 (Cellco Partnership d/b/a Verizon Wireless served on August 2, 2023); *see also* Ex. 2011 (Verizon Corporate Services

Group Inc. served on August 3, 2023); Ex. 2012 (AT&T Services, Inc. served on September 7, 2023); Ex. 2013 (Sprint Corp. served on August 30, 2023); Ex. 2015 (T-Mobile USA, Inc. served on August 24, 2023).

The Petition offers no explanation for Petitioners' delay. Rather, the Petition claims that "Petitioners diligently brought this challenge approximately 6 months after receiving [infringement] contentions for all claims." Pet. at 66. But Petitioners offer no explanation for this six-month delay, ignore that they served substantially overlapping invalidity contentions (*see infra* § VI.D) four to five months prior to the Petition, and likewise ignore that they waited until close to the end of the statutory period to file the Petition. *See, e.g., Ericsson Inc. v. Collision Commc'ns, Inc.*, IPR2022-01233, Paper 12 at 15 (PTAB Jan. 19, 2023).

Because there has been substantial investment in the parallel proceedings, and Petitioners delayed in filing the Petition, Factor 3 weighs heavily against institution.

D. *Fintiv* Factor 4: There is substantial overlap between this IPR and the district court proceedings.

This factor looks at "whether all or some of the claims challenged in the petition are also at issue in district court" and whether the "petition includes the same or substantially the same claims, grounds, arguments, and evidence" as the parallel district court case. *Fintiv I* at 12-13. Here, the challenged and asserted claims are identical, and all of the same prior art applied in the Petition is also relied upon at the district court.

First, the Petition challenges all of the claims that are currently asserted in the litigation. *Compare* Pet. at 1 (challenging claims 1-24) *with* Ex. 2014 at 2 (Verizon infringement contentions asserting claims 1-24); Ex. 2016 at 2 (AT&T infringement contentions asserting the same); Ex. 2017 (T-Mobile infringement contentions also asserting the same); *see also Vector Flow* at 22 (denying institution in part because the same claims were challenged at the PTAB and asserted in litigation); *EClinicalWorks* at 12 (same).

The Petition alleges that the twenty-four claims challenged in this proceeding and currently asserted in the district court cases is “likely greater than the number of claims [that will be] tried.” Pet. at 66. However, Petitioners apply the same three prior art references against all twenty-four claims. Thus, “although the challenged claims asserted in this proceeding may not be identical to those the parties elect to pursue at trial in the underlying litigation, the differences do not appear to be meaningful in this case.” *Google LLC v. Agis Software Dev., LLC*, IPR2020-00871, Paper 16 at 14-16 (PTAB Nov. 25, 2020), *reh’g denied*, Paper 27 (PTAB Jan. 26, 2022); *see also Global Tel*Link Corp. v. HLFIP Holding, Inc.*, IPR2021-00444, Paper 14 at 26 (PTAB July 22, 2021) (denying institution of IPR, noting that “[t]he mere fact ... that three dependent claims challenged here are not asserted in the district court litigation without any explanation of why the lack of challenge of these three claims in the district court is significant is not enough to favor institution, in

light of the near complete overlap of issues with respect to [the challenged] claims”),
reh’g denied, Paper 24 (PTAB Jan. 14, 2022).

Second, Petitioners rely on all of the same prior art that they do in this proceeding (Rao, Montemurro, Freund, and Araujo) in the parallel district court litigations. Ex. 2018 at 25-26; Ex. 2019 at 33-34; Ex. 2020 at 31-32. Each of Verizon, AT&T, and T-Mobile rely on Rao as both an alleged anticipatory and single-reference obviousness reference, and AT&T further alleges that both Montemurro and Freund are likewise anticipatory or render the challenged claims obvious. Ex. 2018 at 51; Ex. 2019 at 71-73; Ex. 2020 at 58-59. In addition, each of Verizon, AT&T, and T-Mobile present “Rao in combination with Montemurro” as an alleged exemplary obviousness combination, and AT&T further presents “Rao in combination with Freund” and “Montemurro in combination with Freund” as such exemplary combinations. Ex. 2018 at 51; Ex. 2019 at 71, 73; Ex. 2020 at 58. Moreover, of Verizon and T-Mobile’s nine exemplary combinations, seven of them involve Rao and/or Montemurro, and of AT&T’s forty-eight exemplary combinations, more than half (twenty-seven) of them involve Rao, Montemurro, and/or Freund. Ex. 2018 at 51; Ex. 2019 at 71-73; Ex. 2020 at 58-59. There is thus substantial overlap in the prior art invalidity theories presented to the PTAB and the district court.

Further, Petitioners do not offer any stipulation, let alone a *Sotera* stipulation, that would address efficiency concerns rooted in that substantial overlap. Rather, it appears they intend to raise the same prior art in similar combinations in this proceeding as well as before the district court in all three cases.

In short, the Petition challenges the same claims asserted in the parallel litigation, and Petitioners rely on the same prior art at the district court. This raises substantial “concerns of inefficiency and the possibility of conflicting decisions,” weighing against institution. *See Fintiv I* at 12.

E. *Fintiv* Factor 5: Five of six Petitioners are defendants in the district court litigation.

Five of the six petitioners are defendants in the parallel litigation. *See, e.g., Fintiv II* at 15 (“Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.”).

The Petition alleges: “That Petitioner Google is not a party to the Related Matter favors institution under all factors, and particularly Factor 5.” Pet. at 65. The Petition does not offer any authority in support of this position, or any explanation for why this is the case. First, the Petition ignores that five of the six Petitioners are indeed parties to the co-pending litigation. Second, even if a petitioner is not a defendant in the co-pending litigation, “if the issues are the same as, or substantially similar to, those already or about to be litigated, or other circumstances weigh against redoing the work of another tribunal, the Board may ... exercise the authority to

deny institution.” *Google LLC v. Personalized Media Commc’ns, LLC*, IPR2020-00724, Paper 19 at 8 (PTAB Nov. 5, 2020) (quoting *Fintiv* at 14). Here, because the parties and patentability issues in this proceeding and the district court litigations substantially overlap, even though Google is not a party to the district court litigations, Factor 5 weighs against institution. *Id.* (denying institution and finding Factor 5 to weigh against institution because “Petitioner did not show[] that parties and issues with respect to patentability and validity in this and the district court proceeding are different”).

F. *Fintiv* Factor 6: Other circumstances weigh strongly against institution, including the weakness of the Petition and Petitioner’s delay.

This factor looks at “other circumstances that impact the Board’s exercise of discretion, including the merits.” *Fintiv I* at 9. This factor weighs heavily against institution for three reasons.

First, contrary to Petitioners’ assertion, the merits of this Petition suffer from significant weaknesses and gaps in proof, as discussed above. The Petition fails to show that any of its proposed obviousness combinations disclose or render obvious any of the challenged claims. *See supra* § V. Thus, the Petition fails to present a “compelling unpatentability challenge” (*see* Interim Discretionary Denial Memo at 2-5) and fails to establish a reasonable likelihood of success.

Second, there is evidence that Petitioners unduly delayed in filing the Petition,

doing so less than two months before the statutory deadline, and Petitioners offer no explanation for their delay. *See supra* § VI.C.

Third, two of the Petition’s four references were before the Examiner. As the Petition admits, “a related Rao reference was submitted” during prosecution. Pet. at 66. Indeed, during prosecution, the Applicant disclosed International Patent Application Publication No. WO 2006/012610 (“Rao-WO”) to the Examiner. Ex. 1002 at 351, 414 (“2006012610”). Rao-WO has the same disclosure as Rao with some additional material. Ex. 2021 (Rao-WO); Ex. 2022 (comparison of Rao and Rao-WO). In addition, the Petition fails to recognize that the issued version of Montemurro, U.S. Patent No. 8,825,109 (“Montemurro Patent”), was likewise before the Examiner. Ex. 1002 at 348, 411 (“8825109”); Ex. 2023 (Montemurro Patent); Ex. 2024 (comparison of Montemurro and the Montemurro Patent).

* * *

Each of the six *Fintiv* factors weigh in favor of the Board exercising its discretion to deny institution.

VII. CONCLUSION

Patent Owner respectfully requests that the Board deny institution for either or both of two independent reasons. First, each of the Petition’s grounds fails on the merits. Second, the Board should exercise its discretion under Section 314(a) to deny institution because of the status of the co-pending lawsuits in light of Petitioners’

delay in filing the Petition.

Date: September 18, 2024

Respectfully submitted,

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CERTIFICATION REGARDING WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Patent Owner certifies that there are 9,736 words in the paper excluding the portions exempted under 37 C.F.R. §42.24(a)(1).

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

The undersigned hereby certifies that the above document was served on September 18, 2024, by filing this document through the Patent Trial and Appeal Case Tracking System as well as delivering a copy via electronic mail upon the following attorneys of record for the Petitioner:

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