

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.,
Petitioners,

v.

HEADWATER RESEARCH LLC,
Patent Owner.

IPR2024-00944
Patent 8,589,541

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)

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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	<i>Google LLC et al. v. Headwater Research LLC</i> , IPR2024-00942, Paper 1, IPR Petition (PTAB June 7, 2024)

No.	Description
Ex. 2021	<i>Google LLC et al. v. Headwater Research LLC</i> , IPR2024-00943, Paper 1, IPR Petition (PTAB June 7, 2024)

I. Introduction

The Board should deny institution of *inter partes* review (“IPR”) of U.S. Patent No. 8,589,541 (“the ’541 patent”) for two independent reasons.

First, the Petition should be denied on the merits. Patent Owner will disclaim claims 1, 24-25, 27-40, 61-62, 65-78, 80-82, 84-90, 153-154, and 172-174 of the ’541 patent shortly after the filing of this Preliminary Response, leaving claims 79 and 83 as the only remaining claims challenged by this Petition.¹ Because the Board may not institute an *inter partes* review based on disclaimed claims,² institution of this proceeding is appropriate only if the Petition can demonstrate a reasonable likelihood of prevailing with respect to either of claims 79 or 83.

With respect to claim 79, which recites that application of a policy includes “intercepting a stack application programming interface (API) level... request,” the Petition relies on a “call (i.e., request)” allegedly sent from Rao’s filter to Rao’s agent as constituting the claimed “request.” *See* Pet. 22-23. However, Rao does not *state* that its filter would send a request to Rao’s agent, and the Petition thus relies

¹ Patent Owner does not concede the merits of the Petition’s challenges as to any claims; disclaimer of the referenced claims is merely to simplify proceedings.

² 37 C.F.R. § 42.107(e) (“No *inter partes* review will be instituted based on disclaimed claims.”).

on an inherency theory. *See* Pet. 22 (alleging that Rao “*requires* the filter to send a call (i.e., request) to the agent 326”).³ However, the Petition provides no evidence (other than a similarly conclusory expert assertion) supporting its claim that Rao requires its filter to send a request to its agent. Rao does not, in fact, require such a request from the filter to the agent; as Patent Owner’s expert explains, a POSITA not only *could* have implemented Rao’s teachings without having Rao’s filter send the alleged request to Rao’s agent, but would have “actively *avoided*” having Rao’s filter send such a request due to significant inefficiencies with that approach. Ex. 2001, ¶45; *see also id.* ¶¶36-39. The Petition also does not even allege that “intercepting... a[n] [API] level request” limitation of claim 79 would have been obvious in view of Rao if not inherently disclosed; accordingly, the Petition cannot succeed with respect to claim 79.

The Petition similarly cannot succeed with respect to claim 83, because the Petition’s claim 83 merely incorporates by reference the Petition’s analysis for claim 79 without any further substantive analysis.

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

³ All emphases herein are added unless otherwise specified.

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 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.

II. Level of Ordinary Skill in the Art

The Petition proposes that a POSITA in the field of the '541 patent “would have 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. 2-3 (internal citation omitted). For purposes of this preliminary response, Patent Owner does not challenge that definition. *See* Ex. 2001, ¶28.

III. 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.

IV. The Petition fails to show a reasonable likelihood of prevailing on claims 79 or 83.

As noted above, shortly after filing this Preliminary Response, claims 79 and 83 will be the sole non-disclaimed claims. Thus, the Petition must demonstrate a reasonable likelihood of prevailing as to either of those claims. *See* 37 C.F.R. §42.107(e) (“No *inter partes* review will be instituted based on disclaimed claims.”). The Petition fails to do so. *See* Ex. 2001, ¶¶29-48.

A. The Petition’s claim 79 theory fails because it relies on an inherency theory contrary to the facts and unsupported by evidence.

Claim 79 requires that the application of the policy recited by claim 1 comprises “assist[ing] in intercepting a stack application programming interface (API) or application messaging layer request.” The Petition sets forth only a single theory, which is that as part of policy application, Rao’s filter 322 would issue a “call (i.e., request) to the agent 326 through the API,” which would constitute the claimed request or message. *See* Pet. 22-23 (Petition’s claim 79 analysis, alleging that “the filter’s request to the agent would constitute a ‘stack application programming interface (API) level’ request”).

The Petition does not allege that this would be an *obvious* implementation of Rao. *See* Pet. 22-23 (providing no motivation to modify Rao to satisfy this limitation); *see also* Ex. 1015 at ¶¶252 (alleging that Rao “teaches this limitation”); *id.* ¶¶253-257 (providing no obviousness theory for this limitation).

Notably, the Petition *also* does not allege that Rao *expressly* teaches this limitation. *See generally* Pet. 22-23 (identifying no express statement in Rao that discusses filter 322 sending a call or request to agent 326 in order to receive priorities from agent 326). Instead, the Petition is clear that it relies on a theory of *inherency*, in which Rao “*requires* the filter to send a call (i.e., request) to the agent 326 through the API to transmit the priorities.” Pet. 22; *see also id.* 23 (alleging: “The agent *must* intercept (or assist in intercepting) the filter’s stack API level request so that the agent can return the priorities to the filter.”).

The Petition’s inherency argument relies on at least the following premises:

Premise #1: “Rao’s agent 326 communicates the priorities to the filter via an API.” Pet. 22 (citing Ex. 1004, ¶¶190, 106)

Premise #2: The communication from Premise #1 “*requires* the filter to send a call (i.e., request) to the agent 326 through the API to transmit the priorities.” Pet. 22 (citing no teachings of Rao in support of this assertion).

Premise #3: The “require[d]” request from filter to agent “constitute[s] a ‘stack application programming interface (API) level’ request.” Pet. 23.

On the basis of these premises, the Petition implies that the agent’s reception of the filter’s request constitutes “assist[ing] in intercepting” that request, and concludes that Rao discloses the requirements of claim 79. *See* Pet. 22-23. The Petition’s logic requires *each* of Premises #1-3 to be true.⁴

As explained below, the Petition’s inherency argument fails at least because Premise #2—that in order for agent 326 to communicate priorities to filter 322, Rao “*requires* the filter to send a call (i.e., request) to the agent 326 through the API to transmit the priorities”—is unsupported and factually inaccurate. *See* Ex. 2001 ¶¶29-47. Furthermore, the Petition does not even allege an obviousness theory that would cure Rao’s failure to expressly or inherently disclose the alleged “request” from filter 322 to agent 326.

1. **A POSITA would have understood that Rao’s filter need not send a request to agent 326 in order to retrieve the priorities.**

⁴ For example, if Premise #1 were not true, there would be no even *alleged* need for filter 322 to request priorities from agent 326. And if Premises #2 or #3 were not true, Rao would not disclose sending the alleged “stack application programming interface (API)... request” that the Petition alleges would be intercepted by agent 326.

As discussed above, for the Petition’s claim 79 theory to succeed, the Petition must show that “Rao’s agent 326 communicat[ing] the priorities to the filter via an API” “*requires* the filter to send a call (i.e., request) to the agent 326 through the API to transmit the priorities.” Pet. 22.

A POSITA would have readily understood that Rao’s filter 322 would *not* need to issue a request to Rao’s agent 326 before agent 326 communicated the priorities to the filter 322. *See* Ex. 2001 ¶¶33-40. Instead, as explained by Patent Owner’s expert, a more sensible implementation⁵ would be Rao’s agent automatically communicating priorities to the filter *without* the filter having first requested those priorities. Ex. 2001, ¶¶33-34.

For instance, a POSITA would have understood that one of many ways to implement Rao’s teachings would recognize be for agent 326 to transmit updated priorities to filter 322 (e.g., so that the filter could update routing table 538 with that

⁵ Because the Petition raises an inherency argument rather than an obviousness argument, Patent Owner need not demonstrate that the Petition’s allegedly inherent configuration is less desirable than other potential implementations. Patent Owner merely emphasizes the fact that a POSITA would have recognized the Petition’s alleged implementation as *undesirable* relative to other options to emphasize that a POSITA would certainly not have understood that implementation to be *inherent*.

information so it is easily accessible to the filter) every time a change to the assigned priorities of particular applications' packets occurs. *See* Ex. 2001, ¶35 (citing Ex. 1004, ¶190).

A POSITA would have recognized that configuring agent 326 to *automatically* send priority updates to filter 322 (without filter 322 needing to request those updates) would be preferable to the Petition's alleged "require[d]" configuration, because agent 326 (in contrast to filter 322) would know when the priorities have been changed and thus know when updates to those priorities need to be transmitted to the filter. Ex. 2001 ¶36.

To the extent a POSITA would have even *considered* having filter 322 request updates from agent 326 in the context of Rao's system, a POSITA would have recognized that such an approach would lead to significant drawbacks such as wasted processing cycles and delay in applying the priorities as filter 322 waits for those priorities to be updated. Ex. 2001, ¶¶37-39 (explaining in more detail the drawbacks of having filter 322 request priority updates from agent 326). These drawbacks would not be present in an implementation wherein agent 326 automatically communicates the priorities to filter 322 as those priorities are updated (without the filter requesting those priorities). *Id.*, ¶39.

Accordingly, because there are other (indeed, better) ways to implement Rao's teachings beyond having filter 322 request priorities from agent 326, the

Petition's theory which relies on the premise that Rao's teachings "require[] the filter to send a call... to the agent... to transmit the priorities" (Pet. 22) cannot succeed. *See* Ex. 2001, ¶40.

2. The Petition provides no evidence supporting its assertion that Rao's filter must send a request to agent 326 in order to retrieve the priorities.

As explained above, a POSITA would have recognized that Rao's filter would not need to request priorities from Rao's agent in order for the agent to communicate those priorities to the filter. The Petition provides no evidence to the contrary. *See* 2001, ¶¶41-47.

As an initial matter, the Petition does not cite to any evidence from Rao itself for the assertion that Rao "requires the filter to send a call (i.e., request) to the agent 326 through the API to transmit the priorities." *See* Pet. 22 (providing no citation to Rao for this assertion). Instead, the Petition cites only to the declaration of Petitioner's expert, Dr. Wolfe. *See id.* (citing Ex. 1015, ¶¶252-257).

In Dr. Wolfe's declaration, he opines as follows (closely mirroring the assertion in the Petition):

A POSITA would have recognized that, for determined priorities to be communicated from the agent 326 to the filter 322 so that they can be applied, *see* [Rao] ¶¶189-93, the filter 322 would need to send a call (i.e., request) to the agent 326 through the API requesting that the agent 326 send the priorities.

Ex. 1015, ¶256. The only citation to Rao in support of this assertion is a reference to Rao at ¶¶189-193, which disclosure says nothing about Rao’s filter 322 sending a request to Rao’s agent 326. Ex. 2001, ¶42.

Instead, the cited portion of Rao addresses, e.g., how “agent 326 uses the policies 520 to apply a priority to network packets of applications” (Ex. 1004, ¶189), how Rao’s “agent 326 indicates the priority to the filter 322 for management of network packet queues 540a-540n to apply the indicated priorities... by any suitable means” (*id.*, ¶190), and the steps that filter 322 may take “[b]ased on the indicated priorities for applications.” *Id.*, ¶191; *see also id.* ¶¶192-193. **None** of these paragraphs (or any other teaching in Rao) says anything about filter 322 **requesting** the priorities from agent 326. Ex. 2001, ¶43.

Dr. Wolfe goes on to state a “POSITA would further recognize that, in order to perform the callback functions that return the priorities to the filter 322, the agent 326 would need to at least in intercepting the filter 322’s stack API level request” (Ex. 1015, ¶256), and asserts that applications such as those used in Rao would “ordinarily include[] callback functions.” Ex. 1015, ¶257 (citing Wyld, Ex. 1005 7:36-40). However, Dr. Wolfe does not provide any reason why, even assuming

Rao's applications include "callback functions,"⁶ that these "callback functions" would allow for providing packet priorities, much less that they would necessarily be used to initiate agent 326's communication of priorities to filter 322 as the Petition's theory requires. Ex. 2001, ¶44.

As explained by Patent Owner's expert, a POSITA would not have viewed callback functions as appropriate for (much less required of) providing priority updates to Rao's filter, because a POSITA would have viewed the use of callback functions to request priority updates "would range from inefficient to unworkable depending on the implementation," and would entail Rao's filter "requesting priority updates in many situations when there would be no priorities to update." Ex. 2001, ¶45

Indeed, Dr. Wolfe does not even provide examples of *any* prior art using a callback function to communicate packet priorities. The only evidence that Dr.

⁶ This is not disclosed either expressly or inherently in Rao, as Dr. Wolfe acknowledges when he asserts that the applications discussed in Rao would "*ordinarily* include[] callback functions." Ex. 1015, ¶257; *see also* Ex. 2001, ¶44 n.1 (agreeing with Dr. Wolfe "that there is no need for Rao's applications to include callback functions, and especially no need for them to include callback functions that would be used to communicate packet priorities").

Wolfe cites for callback functions is a function in the “Wyld” reference that is not part of the Petition’s ground, wherein “a software component may request information, such as ‘usage statistics on a given network connection.’” Ex. 1015 ¶257 (quoting Wyld, Ex. 1005 7:36-40). This callback function in Wyld is not used to communicate priority information; rather, it is used to provide “usage statistics.” Ex. 2001, ¶46. The cited portion of Wyld does not suggest that a POSITA would have even *considered* the use of a callback function to initiate the transfer of application packet priorities in Rao, much less that it would have been inherent as the Petition’s theory requires. *See id.*

None of Dr. Wolfe’s other opinions addressing claim 79 provide any reason why filter 322 would supposedly need to issue a request to agent 326. He asserts, for example, that “agent 326 may communicate the priority of network packets to the filter 322... via an application programming interface (API)” (Ex. 1015 ¶255, quoting Ex. 1004 ¶190), but this fails to address why the *filter* would need to send a request to the *agent* before the agent communicates the priorities. Ex. 2001, ¶47. Accordingly, Dr. Wolfe’s allegations in this regard should be accorded “little or no weight.” *See Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper No. 9 at 15 (PTAB Aug. 24, 2022) (precedential) (quoting 37 C.F.R. §42.65(a), and affording “little weight” to expert’s opinion which “does not cite to any additional supporting evidence or provide any technical reasoning to support his statement”). As explained

above, a POSITA would have interpreted this disclosure as suggesting that the agent would send the priorities to the filter *without* previously receiving a request from the filter.

Accordingly, the Petition fails to provide competent evidentiary support for its allegation, foundational to the Petition's theory, that Rao "requires the filter to send a call... to the agent... to transmit the priorities." Pet. 22.

3. The Petition does not present any theory that could cure the deficiency of its inherency theory.

As shown above, the Petition does not point to any evidence that Rao expressly discloses the claimed intercepting of an API request as part of policy enforcement, and the Petition's inherency theory is unsupported (and indeed contrary to how a POSITA would have wanted to implement a system based on Rao's teachings).

Additionally, the Petition does not even allege that intercepting an API request as part of policy enforcement would have been an obvious modification to Rao. *See* Pet. 22-23 (providing no motivation to modify Rao to satisfy this limitation, or anything else that would even arguably satisfy the legal requirements for obviousness including motivation and reasonable expectation of success). Accordingly, the Petition fails to set forth any theory that could plausibly support a finding of unpatentability for claim 79.

B. The Petition’s claim 83 challenge fails because it relies on the same flawed logic of the Petition’s claim 79 theory.

The Petition does not really set forth any explanation as to why claim 83 is invalid. The Petition’s sole “analysis” of claim 83 is reproduced in its entirety below:

N. Claim 83

- 1. “... claim 1, wherein apply the policy comprises at least assist in intercepting ... an application interface message.”**

Supra [1f]-[1g], claim 79; EX-1015 ¶270.

Pet. 25.⁷

To the extent string citation sets forth an any discernable invalidity theory for claim 83 that complies with the Board’s regulations, any such theory would fail because it relies solely on the Petition’s claim 79 analysis for the Petition’s contention that Rao discloses that an “application interface message” would be “intercept[ed]” as part of the application of the policy. *See* Pet. 25 (citing only limitations [1f]-[1g] and claim 79); Pet. 15-18 (Petition’s analysis for limitations

⁷ Counsel for Patent Owner initially speculated that Petitioner may been constrained by the word count limit, but the Petition’s Certificate of Compliance shows that the Petition “contains 12,598 words,” approximately 1,400 words less than the word count limit for petitions. *See* 37 C.F.R. §42.24(a)(1)(i) (specifying a word count limit of “14,000 words”).

[1f]-[1g], discussing only “intercepted packets” and not any intercepted “application interface message”); *see also* Ex. 1015 ¶270 (Petitioner’s expert, alleging: “Rao teaches this limitation for the reasons presented in connection with claim 79.”).

As explained with respect to claim 79, Rao does not teach that application of the policy includes any request from Rao’s filter 322 to Rao’s agent 326, which alleged request Petitioner’s expert seemingly relies upon to satisfy the “application interface message” requirement of claim 83. *See* Ex. 1015, ¶270 (for claim 83, equating “a specific application interface message” to “a stack application programming interface (API) level request” as recited in claim 79). Accordingly, the Petition cannot show invalidity of either claim 79 *or* claim 83. *See* Ex. 2001, ¶48.

V. Discretionary denial of institution is also 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. Intrix-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 '541 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. 1018 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 17, 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. 1018 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. 1018 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 17, 2025, which may be extended to June 17, 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. 1018 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. 1018 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 71. 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 ’541 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. 1018 at 4; Ex. 2003 at 3; Ex. 2005 at 3) will likely issue prior to the December 17, 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. 1018 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. 1018 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 two days 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* § V.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 76 (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." Pet. at 72. But Petitioners offer no explanation for this six-month delay, ignore that they served substantially overlapping invalidity contentions (*see infra* § V.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, as for the challenged claims, the Petition alleges that the “Petition challenges 50 claims, which will likely be greater than the number of claims tried.” Pet. at 72. However, as noted above, Patent Owner intends to disclaim all but two of these claims (claims 79 and 83), both of which are asserted in all three district court cases. *See supra* § I; Ex. 2014 at 2 (Verizon infringement contentions); Ex. 2016 at 2 (AT&T infringement contentions); Ex. 2017 (T-Mobile infringement contentions). In addition, Patent Owner recognizes that the Petition does not challenge all of the asserted claims, but taken in combination with two other petitions filed by Petitioners, Petitioners challenge all of the asserted claims before the Board. *See generally* Pet.; Exs. 2021-2022. In addition, Petitioners apply one or more of the same three prior art references (Rao, Fadell, and Freund) against all challenged claims in all three petitions. Pet. at 1; Ex. 2021 at 1; Ex. 2022 at 1.

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, Fadell, and Freund) in the parallel district court litigations. Ex. 2018 at 20-21; Ex. 2019 at 24; Ex. 2020 at 25-26. 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 Fadell and Freund are likewise anticipatory or render the challenged claims obvious. Ex. 2018 at 32-33; Ex. 2019 at 43-46; Ex. 2020 at 38-39. In addition, each of Verizon, AT&T, and T-Mobile present “Rao in combination with Fadell” as an alleged exemplary obviousness combination, and AT&T further presents “Rao in combination with Freund” and “Fadell in combination with Freund” as such exemplary combinations. Ex. 2018 at 33; Ex. 2019 at 43, 45; Ex. 2020 at 39. Moreover, of Verizon and T-Mobile’s nine exemplary combinations, eight of them involve Rao and/or Fadell, and of AT&T’s fifty-eight exemplary combinations, more than half (thirty) of them involve Rao,

Fadell, and/or Freund. Ex. 2018 at 32-33; Ex. 2019 at 43-46; Ex. 2020 at 38-39.

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 in combination with Petitioners' two other parallel petitions challenge 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 71. 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. As discussed above in

Section IV, the Petition raises an inherency theory with respect to claims 79 and 83, but the Petition fails to explain *why* Petitioner believes the limitations of those claims to be inherent. And as also discussed in Section IV, not only would a POSITA have understood the Petition’s allegedly “required” functionality to be inherent in the prior art, but would have actively avoided implementing the allegedly inherent functionality. 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* § V.C.

Third, as the Petition admits, one of the Petition’s three references was before the Examiner. *See* Pet. at 66. Indeed, during prosecution, the Applicant disclosed Fadell to the Examiner. Ex. 1003 at 438, 612 (“20100017506” to “FADELL”).

* * *

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

VI. Conclusion

For the foregoing reasons, Patent Owner respectfully requests that institution be denied.

Date: September 17, 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 6,894 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 17, 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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