UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

HEADWATER RESEARCH LLC,
Patent Owner.

IPR2024-01407
Patent 9,179,359

PATENT OWNER'S PRELIMINARY RESPONSE

GOOGLE EXHIBIT 1021
GOOGLE v. HEADWATER
IPR2026-00049

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Ex. 2005	*Headwater Research LLC v. Samsung Elecs. Co.*, No. 2:23-cv-641-JRG-RSP, Dkt. No. 22, Order Granting Extension of Time to Respond to Complaint (E.D. Tex. Jan. 15, 2024)
Ex. 2006	*Headwater Research LLC v. Samsung Elecs. Co.*, No. 2:23-cv-641-JRG-RSP, Plaintiff Headwater Research LLC's Amended Disclosure of Asserted Claims and Infringement Contentions (E.D. Tex. Aug. 20, 2024)
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Ex. 2008	U.S. Patent Application Publication No. 2008/0080457 by Cole ("Cole-2")
Ex. 2009	Redline comparison of Cole (Ex. 1006) and Cole-2 (Ex. 2008)
Ex. 2010	Declaration of Erik de la Iglesia in support of Patent Owner's Preliminary Response
Ex. 2011	*Curriculum vitae* of Erik de la Iglesia

I. INTRODUCTION

The Board should deny institution of *inter partes* review ("IPR") of U.S. Patent No. 9,179,359 ("the '359 patent") for two independent reasons.

First, the Petition should be denied on the merits. Patent Owner will disclaim all claims of the '359 patent except for claim 26 (i.e., Patent Owner will disclaim claims 1-25 and 27-29) shortly after the filing of this Preliminary Response, leaving claim 26 as the only remaining claim 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 claim 26.

Claim 26 requires "one or more processors… configured to determine that [an] application is an active application based on a user interaction with [that] application." Ex. 1001, claim 26. The Petition provides only a brief, conclusory paragraph regarding claim 26, which sets forth a theory solely based on the idea that "[a]n application that provides a voice-related connection request… involves a determination that a user is likely to interact with an application." Pet. 47. However, the Petition's theory provides no explanation as to how or why the prior art

[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.").

supposedly discloses or renders obvious that any "active application" determination performed by a processor would be "based on a user interaction" with the application. At most, the Petition's theory alleges that a *person* might be able to infer that an application that issues a voice-related connection request is likely to be interacted with, but provides no rationale as to why this discloses or renders obvious that "one or more *processors*"[3] would use this alleged correlation to assist in calculating an "active application" determination. Instead, as explained by Patent Owner's expert, a POSITA reading Shell (the prior art reference the Petition relies on for claim 26) would have understood Shell to suggest that voice-related connection requests should be prioritized over data connection requests, ***regardless*** of the status of user interaction with the voice application. Ex. 2010, ¶38.

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, and the same art as relied upon by the Petition. The district court cases are at an advanced stage, such that the parties and the district court have already invested significant time and resources in those cases. By the time the Board reaches an institution decision in this proceeding, claim construction briefing will be complete and fact discovery will be nearing completion. And the district court trial is set to take place

[3] All emphases added unless otherwise noted.

nearly six months before the deadline for any final written decision in this proceeding. All six *Fintiv* factors favor a discretionary denial.

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

II. OVERVIEW OF THE '359 PATENT

Claim 26 of the '359 patent is directed at a high level to an end-user device that indicates unavailability of WWAN access to one application while WWAN access is available to a different application, wherein the "different application" has been determined by the system to be an "active application based on a user interaction with the different application. Claims 1 and 26 are reproduced below.

1. A wireless end-user device, comprising:

a wireless wide area network (WWAN) modem to receive and transmit Internet data between the device and at least one WWAN when configured for and connected to the at least one WWAN;

a wireless local area network (WLAN) modem to receive and transmit Internet data between the device and at least one WLAN when configured for and connected to the at least one WLAN; and

one or more processors configured to apply a stored WWAN differential traffic control policy to Internet data service provided using the WWAN modem and the at least one WWAN, and indicate to a particular application, via an application program interface (API), one or more network access conditions based on the applied WWAN differential

traffic control policy, wherein the one or more network access conditions includes a network access condition that indicates the unavailability to the particular application of an Internet data service that is currently available via the WWAN modem to a different application, but that is indicated as unavailable to the particular application.

26. The wireless end-user device of claim 1, *wherein the one or more processors are further configured to determine that the different application is an active application* ***based on a user interaction with the different application***.[4]

Ex. 1001, claims 1, 26.

As shown above, Claim 26 requires that the system be configured to "determine that the different application" (i.e., the application for which the Internet data service ***is*** currently available to) "is an active application based on a user interaction with the different application." Ex. 2010, ¶29.

As explained by Patent Owner's expert Erik de la Iglesia, a POSITA would understand this limitation of claim 26 to be straightforward, and as requiring that the "determin[ation] that the different application is an active application" would be "based on a user interaction with the different application"—in other words, the status of user interaction with the different application would be an input to the

[4] All emphases added unless otherwise noted.

"active application" determination, such that the "active application" determination is ***based on*** a user interaction with the application. Ex. 2010, ¶30.

This understanding is consistent with the '359 patent, which teaches that the system entails "***classification rules"*** for activities / applications which "***can include***, for example, ***examining if one or more of the following has taken place*** within a specified period of time: user has interacted with the device, ***user has interacted with the service usage activity***, [etc.]" Ex. 1001 at 101:27-36 (emphasis added); Ex. 2010 ¶31. In other words, user interaction with the service activity (which can include an application that uses network service) is used as an input to the classification rules, such that the classification of an application is "based on a user interaction with the application" as recited in claim 26. *Id.*

III. LEVEL OF ORDINARY SKILL IN THE ART

The Petition proposes that a POSITA in the field of the '359 patent "would have had (1) at least a bachelor's degree in computer science, computer engineering, electrical engineering, or a related field, and (2) at least two years of industry experience in services and application implementation in communication networks. Additional graduate education could substitute for professional experience, and vice versa." *See* Ex. 1003 ¶15; Pet. at 13 & n.2 (citing Ex. 1003 ¶¶14-15). For purposes of this Preliminary Response, Patent Owner does not challenge that definition.

IV. CLAIM CONSTRUCTION

The Petition states that "[n]o formal claim constructions are necessary." Pet. at 2. For purposes of this Preliminary Response, Patent Owner agrees.

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

As noted above, claim 26 requires that "the one or more processors are further configured to determine that the different application is an active application based on a user interaction with the different application." Ex. 1001, claim 26.

The Petition's analysis of claim 26 refers ***only*** to Shell. *See generally* Pet. 47 (claim 26 discussion, although part of the Shell-Cole ground, referencing only Shell and not Cole). The Petition is not particularly precise about its theory for claim 26, but the Petition plainly does not set forth any theory that it would be obvious to ***modify*** Shell's teachings such that it discloses the dependent limitation of claim 26. *See* Pet. 27. And as explained by Mr. de la Iglesia, a POSITA would ***not*** have found it obvious to modify Shell to arrive at claim 26. Ex. 2010 ¶47.

Instead of arguing obviousness of the claim 26 limitation, the Petition first notes that Shell discloses applications that issue "voice requests," and also that Shell can assign higher priorities to "active" applications. Pet. 47 (quoting Ex. 1005, ¶47's disclosure that "voice requests may be assigned a higher priority than data requests," as well as Shell's disclosure that "a request from an application that is currently active may be assigned a higher priority than a request from an application running in the background").

After identifying these teachings of Shell, the Petition asserts in conclusory fashion:

> An application that provides a voice-related connection request (***different application***) involves a determination that a user is likely to interact with the application (e.g., voice call) (***user interaction with the different application***), and thus, prioritization by the connection manager modules involves ***determin[ing] that the different application is an active application***. SAMSUNG-1003, ¶¶139-40; SAMSUNG-1005, [0008], [0013], [0014].

Pet. 47.

The Petition, however, does not provide any explanation for this assertion (which, even if taken as true, would not satisfy the plain claim language of claim 26, because the Petition does not even attempt to address the "based on" requirement of claim 26). Furthermore, the Petition's sole evidence in support of this assertion is the equally conclusory expert testimony (Ex. 1003, ¶¶139-140), as well as paragraphs 8 and 13-14 of Shell which do not support the Petition's allegation of the invalidity of claim 26. *See* Ex. 2010 ¶¶45-46 (Mr. de la Iglesia explaining why paragraphs 8 and 13-14 of Shell are not relevant to the Petition's invalidity theory).

As explained by Mr. de la Iglesia, the Petition's obviousness theory fails for at least three independent reasons. Ex. 2010, ¶¶32-43.

First, even if the Petition's assertion were true, if a voice application somehow "involves a determination that a user is likely to interact with the application," that is not the same as the system "determin[ing] that the different application is an active application based on a user interaction with [that] application" as claimed. Ex. 2010 ¶¶35-36.

Specifically, the claim recites its "active application" determination being "based on a user interaction with" that application, not based on the inference that a user is ***likely*** to interact with the application.

Second, even if the Petition's theory (counterfactually) related to ***actual*** user interaction (as opposed to just the ***potential*** for user interaction as the Petition asserts), the Petition does not explain why a POSITA would have supposedly understood Shell to disclose "that an application that provides a voice-related connection request… involves a determination that a user is likely to interact with [or has interacted with] the application." Pet. 47; Ex. 2010 ¶¶37-39. For example, even if a ***POSITA*** might be able to probabilistically infer that a "voice-related connection request" makes it extremely likely that a user will interact with (or has interacted with) the application that issues a "voice-related connection request," the Petition provides no explanation for why the system would be configures such that "one or more ***processors***" would be configured to determine whether the application

is ”active” “based on a user interaction with [the] application” as recited by claim 26. Ex. 2010 ¶37.

As explained by Mr. de la Iglesia, a POSITA would implement Shell’s disclosure that voice connection requests be given higher priority than data connection requests in the straightforward manner of simply “prioritiz[ing] voice requests over data requests, ***regardless of user interaction***.” Ex. 2010 ¶38 (emphasis in original). The Petition provides no reason why it would have been obvious for the relative priority of a voice request over a data request would in any way be modified by the claimed “one or more processors” “based on a user interaction” with the requesting application, and certainly no reason why Shell ***discloses*** (either expressly on inherently) such a technique. Ex. 2010, ¶¶38-39, 44, 47.

Third, the Petition’s assertion, even if taken as true, simply does not set forth any theory as to how the requirement ***of claim 26*** is satisfied, which requires that “the one or more processors are further configured to determine that the different application is an active application ***based on a user interaction*** with the different application.” Ex. 1001, claim 26; Ex. 2010 ¶¶40-43. The Petition does cite to a portion of Shell that discloses that “a request from an application that is currently active may be assigned a higher priority than a request from an application running in the background.” Pet. 47 (quoting Ex. 1005, ¶57). But importantly, the claim does not require simply determining whether an application is active; it ***also*** requires

determining whether the application is active ***based on a user interaction*** with that application. The Petition does not explain why the "active application" determination disclosed in Shell would in any way rely on or otherwise be "based on" "a user interaction with [the] application" as claim 26 requires.

For example, as Mr. de la Iglesia explains, in the context of Shell a voice application may be deemed "active" if it is requesting a voice connection (e.g., to receive an incoming call) even if there has been no user interaction with that application. Ex. 2010, ¶41. But there is no evidence (or reasoning) provided by the Petition that a POSITA would find it obvious to make the "determin[ation] that the different application is an active application" be "***based on*** a user interaction" with that application in the context of Shell. Indeed, the Petition's assertion that "a voice-related connection request" in Shell inherently involves the user being more likely to interact with the application (Pet. 47) shows that there is no need or benefit for the one or more processors of the system to ***evaluate*** a user interaction with the application such that the determination of whether an application is "active" would be "based on" a user interaction with that application. If the system simply prioritized voice-related connection requests (even if it did not consider a user interaction with the application, or even the likelihood of potential user interaction with the application), the operation of the system would be consistent with Shell's teachings that voice requests should have higher priority than data requests (*see* Ex.

1005, ¶57), and would also be consistent with the Petition's implicit assertion that applications that are likely to be interacted with by users should be prioritized over other applications. Ex. 2001, ¶41.

As further explained by Mr. de la Iglesia, the fact that prioritization of voice requests over other sorts of requests may hypothetically have the side effect of prioritizing applications that have been interacted with is different from claim 26's requirement of "determin[ing] that the different application is an active application ***based on*** a user interaction with" that application. Ex. 2010, ¶42-43. Prioritizing voice requests in the context of Shell does not disclose or render obvious that a processor would base any "active application" determination that is "based on a user interaction with" the requesting application. Ex. 2010, ¶42.

Mr. de la Iglesia provides a helpful analogy in this regard. In a classroom setting, students might be assigned a priority "based on their age" such that older students would have higher priority. Ex. 2010 ¶43. "As children who are older are, on average, more likely to be taller, this would have the effect of giving higher priority on average to taller children." *Id.* But the prioritization (which is strictly based on age) would not in any plausible sense be "based on ***height***," because the priority assignment system did not use height in any way to perform the prioritization. Likewise, the Petition's assertion that assigning higher priority to voice-related connection requests may ultimately result in prioritizing applications

that users are more likely to interact with could potentially be true under certain circumstances, but that does not mean that claim 26 would be satisfied. Instead, the prioritization in that context is based on whether the connection request is voice-related, such that the prioritization determination (and/or "active application" determination[5]) would not be "based on a user interaction with" the application. Ex. 2010, ¶43.

For each of the above reasons, Shell does not disclose (expressly or inherently) the requirements of claim 26. And because the Petition does not set forth any motivation or other obviousness rationales with respect to the requirements of claim 26, the Petition fails to set forth a plausible theory of invalidity with respect to claim 26. *See* Ex. 2010, ¶¶44, 47.

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

[5] The Petition does not allege that Shell's "active" classification discloses or renders obvious being based on a user interaction with the application. Instead, the Petition's theory is limited to applications that "provide[] a voice-related connection request… involv[ing] a determination that a user is likely to interact with the application." Pet. 47. This is unsurprising, because Shell does not explain ***how*** it performs its "active" classification, and the Petition provides no analysis in that regard.

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," Ex. 1051).

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 trial will occur about six 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 briefing will be complete and fact discovery will be nearing completion. For Factor 4, the substantial overlap in both the patent claim and art at issue in this proceeding and in the district court, and Petitioner's *Sand Revolution* stipulation does not quell the concerns of inefficiency and inconsistent rulings. For Factor 5, Petitioner is a defendant 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 parallel district court proceeding involving the same challenged claim, claim 26 of the ’359 patent, the district court has not granted a stay pending. Further, Petitioner has not requested such a stay, there is no indication it will do so, 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 have already exchanged infringement contentions, invalidity contentions, and claim construction disclosures; fact discovery is also well underway. Ex. 2001 at 6; Ex. 2002. And by the time the Board’s institution decision is due in this proceeding (March 26, 2025), the April 4, 2025 *Markman* hearing will be a week away, fact discovery will be set to close in less than two months, and trial will be approximately six months away. *See* Ex. 2001 at 1, 4-5. Further, trial is currently set for October 6, 2025, nearly six months before the earliest deadline for a final written decision in this IPR. *Id.* at 1; *see infra* § VI.B.

Thus, even if Petitioner 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 the IPR petition was filed several months after infringement contentions were served).

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 trial will occur approximately six 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 March 26, 2026, which may be extended to October 26, 2026, for good cause or in the case of joinder. 37 C.F.R. § 42.100(c). Meanwhile, the district court litigation is set for trial on

October 6, 2025. *See* Ex. 2001 at 1. The timeframe set by the district court is consistent with the Federal Court Management Statistics for the Eastern District of Texas. *See* Ex. 1051 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 19.8 months after filing. Ex. 2003 (indicating median times to trial for civil cases for the twelve-month period ending in September for 2019-2024 as 16.8, 18.0, 22.1, 21.0, 19.0, and 21.9). Here, trial is set approximately 21 months after the cases were filed. *Compare* Ex. 2001 at 1 (trial set for October 6, 2025) *with* Ex. 1004 (parallel case filed December 29, 2023).

Thus, consistent with historical statistics, the district court trial is set to occur ***about six 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 at 10-11 (PTAB May 5, 2023) ("*Roku*") (same).

Indeed, the Board has denied institution on account of even 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"); *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); *AT&T Servs. Inc. v. ASUS Tech. Licensing Inc.*, IPR2024-00997, Paper 15 at 9 (PTAB Dec. 16, 2024) ("*AT&T*") (holding that trial occurring "***four to five months*** prior to the deadline for our final written decision, based on the scheduled trial date and median time-to trial statistics … weighs substantially in favor of discretionary denial"); *Ericsson Inc. v. Active Wireless Techs. LLC*, IPR2024-00886, Paper 8 at 8-9 (PTAB Nov. 12, 2024) ("*Ericsson*") (trial four months before deadline for final written decision weighed in favor of denial of institution); *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).

The Petition implies that the Board should ignore this set trial date because "scheduled trial dates are unreliable and often change." Pet. at 80. But the Petition presents no evidence that the trial *in this case* will not proceed on the set date, which, as noted above, is consistent with the most current time-to-trial statistics for the Eastern District of Texas. *See* Ex. 1051 at 3 & n.4; *see also id.* at 8-9. "[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).

Because the district court trial is currently set to occur about six months before the earliest deadline for a final written decision in this IPR, the set date is consistent with current time-to-trial statistics, and there is no evidence that this date 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 and fact discovery will be nearing 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. Here, by the time the institution decision issues, claim construction briefing will be complete and the *Markman* hearing will be a week away. Ex. 2001 at 4-5. Fact discovery will likewise be less than two months from completion. *Id.* at 4.

These investments by the parties and district court weigh 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 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 nearly eight months after waiving service of the district court complaint. *Compare* Pet. at 82 (dated September 6, 2024) *with* Ex. 2004 at 1 (Petitioner waived service on January 8, 2024); *see also* Ex. 2005. The Petition offers no explanation for Petitioner's delay.

Because there has been substantial investment in the parallel proceeding, 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 proceeding.

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 sole challenged and asserted claim (claim 26) is identical, and the same prior art applied in the Petition is also relied upon at the district court.

First, the Petition challenges claim 26 of the '359 patent, the only claim that Patent Owner will not have disclaimed; that claim is also currently asserted in the litigation. *Compare* Pet. at 1 (challenging claim 26) *with* Ex. 2006 (infringement contentions asserting claim 26); *see also Pharaoh Energy Servs., LLC v. Flex-Chem Holding Co.*, IPR2024-00815, Paper 7 at 13-14 (PTAB Sept. 20, 2024) (denying institution in part because the same claims were challenged at the PTAB and asserted in litigation); *Vector Flow* at 22 (same); *EClinicalWorks* at 12 (same).

Second, Petitioner relies on the same prior art to challenge claim 26 that they do in this proceeding in the parallel district court litigation (Shell and Cole). Petitioner relies on its primary reference Shell as well as Cole as allegedly anticipatory references. Ex. 2007 at 29-30. Petitioner also relies on both Shell and

Cole in exemplary obviousness combinations. *Id.* at 34-36. In fact, fourteen of the fifteen exemplary combinations include Shell, Cole, or both. *Id.* There is thus substantial overlap in the prior art invalidity theories presented to the PTAB and the district court.

Further, Petitioner's *Sand Revolution* stipulation does not address efficiency concerns rooted in that substantial overlap. *See* Ex. 1052 at 1 ("[I]f the PTAB institutes IPR2024-01407, Samsung agrees not to pursue the same grounds … in the district court litigation."). That stipulation is essentially meaningless where, as here, Petitioner intends to raise the same prior art in similar, albeit not identical, combinations in this proceeding as well as before the district court. *See Ericsson* at 12-13; *AT&T* at 12-13.

In short, the Petition challenges the same patent claim that is asserted in the parallel litigation, and Petitioner relies 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: Petitioner is a defendant in the district court litigation.

Petitioner is a defendant 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.").

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 Petitioner's assertion, the merits of this Petition suffer from significant weaknesses and gaps in proof, as discussed above. The Petition fails to show its proposed combination of Shell and Cole renders obvious claim 26. *See supra* § V. Thus, the Petition fails to present a "compelling unpatentability challenge" (*see* Ex. 1051 at 2-5) and fails to establish a reasonable likelihood of success.

Second, there is evidence that the Petitioner unduly delayed in filing the Petition, doing so only four months before the statutory deadline, and the Petitioner offers no explanation for the delay. *See supra* § VI.C.

Third, a family member of Cole ("Cole-2") was before the Examiner. Ex. 1002 at 177, 553 (listing U.S. patent application "2008008080457" by "Cole, Terry L."). A comparison of Cole (Ex. 1006) and Cole-2 (Ex. 2008) reveals very few and only minor differences in the text of the two documents—only the Abstract and three out of 155 paragraphs have any differences at all. *See* Ex. 2009. Cole and Cole-2 also have the same eleven figures. *Compare* Ex. 1006 at Figs. 1-11 *with* Ex. 2008 at

Figs. 1-11. Thus, one of the two references that Petitioner relies on in this proceeding was already submitted during original prosecution.

* * *

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, the Petition's challenge to claim 26 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 lawsuit in light of Petitioner's delay in filing the Petition.

Date: December 26, 2024

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CERTIFICATION REGARDING WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Patent Owner certifies that there are 5,432 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 December 26, 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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