

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

HEADWATER RESEARCH LLC,
Patent Owner.

Case IPR2024-00003
Patent 9,198,117

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

No.	Description
Ex. 2001	Declaration of Michael C. Brogioli, Ph.D. in support of Patent Owner's Preliminary Response
Ex. 2002	<i>Curriculum vitae</i> of Michael C. Brogioli, Ph.D.
Ex. 2003	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Dkt. No. 63 (Docket Control Order) (E.D. Tex. Dec. 1, 2023)
Ex. 2004	Federal Court Management Statistics for the Eastern District of Texas through December 2023, <i>available at</i> https://www.uscourts.gov/statistics-reports/federal-court-management-statistics-december-2023
Ex. 2005	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Dkt. No. 7 (Unopposed Motion for Extension of Time to Move, Answer, or Otherwise Respond to Plaintiff's Complaint and Waiver for Foreign Service Requirement) (E.D. Tex. Mar. 31, 2023)
Ex. 2006	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Plaintiff Headwater Research LLC's Disclosure of Asserted Claims and Infringement Contentions (E.D. Tex., served Sept. 28, 2023)
Ex. 2007	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Defendants' Invalidity and Patent Ineligibility Contentions: Cover Pleading (E.D. Tex., served Nov. 30, 2023)
Ex. 2008	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Defendants' Invalidity and Patent Ineligibility Contentions: Exhibit B-01 (E.D. Tex., served Nov. 30, 2023)
Ex. 2009	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Defendants' Invalidity and Patent Ineligibility Contentions: Exhibit B-09 (E.D. Tex., served Nov. 30, 2023)
Ex. 2010	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Defendants' Invalidity and Patent Ineligibility Contentions: Exhibit B-11 (E.D. Tex., served Nov. 30, 2023)

No.	Description
Ex. 2011	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Defendants’ Invalidity and Patent Ineligibility Contentions: Exhibit B-B (E.D. Tex., served Nov. 30, 2023)
Ex. 2012	<i>Headwater Research LLC v. Samsung Elecs. Co., Ltd. et al.</i> , No. 2:23-cv-00103, Defendants’ Invalidity and Patent Ineligibility Contentions: Exhibit B-10 (E.D. Tex., served Nov. 30, 2023)

I. INTRODUCTION

The Board should deny institution of *inter partes* review (“IPR”) of U.S. Patent No. 9,198,117 (“the ’117 Patent”) for two independent reasons.

First, the Petition should be denied on the merits.

Regarding the Petition’s Ground 1, the Petition fails to show (or even provide any allegation) that the “multiple requests to transmit application data” sent from “network application servers” that the “network message server [is] configured to receive” indicate both “a corresponding one of the mobile end-user devices and one of a plurality of applications” as required by claim limitation [1.3]. Instead, the Petition alleges that messages *sent from* the network message server (rather than *received by* the network message server) provide the recited indication, and the Petition provides no theory as to why it would be obvious or inherent that the messages *received by* the message server would do so (as limitation [1.3] requires). And Patent Owner’s expert, Dr. Brogioli, explains that it would have made “little sense” for the messages received by the network message server from the application server to include the information that the Petition alleges indicates “a corresponding one of the mobile end-user devices and one of a plurality of applications” as claimed. *See* Ex. 2001 ¶43.

Regarding the Petition’s Ground 2, the Petition fails to show that the relied-upon art discloses “forward[ing] application data... via a secure interprocess

communication service” as required by claim limitation [1.7]. The Petition does not even explain how the alleged “secure interprocess communication service” is supposedly a “communication service,” much less how it could be used to “forward application data” as claimed. And as explained by Dr. Brogioli, the prior art does not relate to a “secure... communication service” at all, but at most discloses protecting applications from malicious behavior (e.g., protecting applications from the ill effects of receiving malware over an unsecured communication service) rather than securing any communication service over which data is forwarded. *See* Ex. 2001 ¶ 57 (“[A] POSITA would recognize that protecting an application from the potentially adverse effects of receiving malicious data over an unsecured system bus would not transform that unsecured system bus into a ‘secure interprocess communication service.’”).

These deficiencies apply to all challenged claims. Accordingly, the Petition fails to show unpatentability for any claim, and institution should be denied.

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 the same art as relied upon by the Petition. The district court case involving Petitioner is at an advanced stage, and the parties and the district court have already invested significant time and resources in that case. Indeed, by the time the Board reaches an institution decision in this proceeding, the parties will have

exchanged infringement contentions, invalidity contentions, claim construction disclosures, and claim construction expert reports; fact discovery will also be well underway. And the district court trial also is set to take place *nearly five months before* the deadline for any final written decision in this proceeding. The Petition also fails to offer 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 '117 PATENT

The '117 Patent is generally directed to a network system that allows for efficient direction of communications between a plurality of network application servers and a plurality of applications resident on end-user devices via a network message server and a plurality of device messaging agents and via various secure communications paths. More specifically, the only independent claim (Claim 1) recites (using the Petition's limitation numbering):

[1pre] A network system comprising:

[1.1] a plurality of device messaging agents, each executable on a respective one of a plurality of mobile end-user devices configured to exchange Internet data via a data connection to a wireless network; and

[1.2] a network message server supporting a plurality of secure Internet data connections, each secure Internet data connection between the network message server and a respective one of the mobile end-user devices via a device data connection to a wireless network,

[1.3] the network message server configured to receive, from each of a plurality of network application servers, multiple requests to transmit application data, each such request indicating a corresponding one of the mobile end-user devices and one of a plurality of applications,

[1.4] the network message server to generate corresponding Internet data messages based on the requests, each such message containing at least one application identifier for an indicated application and application data corresponding to one of the requests, and

[1.5] the network message server to transmit each of the generated Internet data messages to the device messaging agent located on the device indicated in the corresponding request, using the corresponding secure Internet data connection for the device indicated in the corresponding request;

[1.6] each device messaging agent, when executing, to receive the Internet data messages from the secure Internet data connection corresponding to the device executing the device messaging agent, and

[1.7] to, for each received message, map the application identifier in the message to a software process corresponding to the application identifier, and forward the application data in the message to the software process via a secure interprocess communication service.

As explained by the '117 Patent, the claimed invention “delivers messages to the device messaging agent on behalf of a plurality of network applications,” such that “[e]ach network application server supplies the network message server with application with application data and an indication of a device and an application on

the device to which the application data should be delivered.” Ex. 1001 at Abstract. The ’117 Patent additionally teaches that within the mobile devices that receive messages from the network message server, “various forms of message encryption and security framework techniques can be applied to encrypt and/or secure the agent communication bus 1630,” thus allowing for a secure communication channel between processes. *See generally id.*, 42:19-43:4.

III. LEVEL OF ORDINARY SKILL IN THE ART

The Petition proposes that a POSITA in the field of the ’117 Patent “would have had (1) at least a bachelor’s degree in computer science, electrical engineering, or a related field, and (2) 3-5 years of experience in services and application implementation in communication networks. Additional graduate education could substitute for professional experience, and *vice versa*.” *See* Pet. at 3 (citing Ex. 1003 ¶¶21-22). For purposes of this preliminary response, Patent Owner does not challenge that definition.

IV. CLAIM CONSTRUCTION

The Petition states that “no formal claim constructions are necessary.” *Id.* 2-3. 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.

Grounds 1A and 2A of the Petition are the only grounds that address invalidity of Claim 1, the sole independent challenged claim of the '117 Patent. As shown below, the Petition fails to show a reasonable likelihood of unpatentability of Claim 1 in either of these Grounds.

A. The Petition's Ground 1 theory fails on the merits.

Limitation [1.3] of Claim 1 (from which all challenged claims depend) recites: “the network message server configured to receive, from each of a plurality of network application servers, multiple requests to transmit application data, each such request indicating a corresponding one of the mobile end-user devices and one of a plurality of applications.” Ex. 1001, Claim 1. The plain language of Claim 1 requires that *requests sent from the application servers to the message server* (i.e., the messages that the network message server is configured to receive) indicate both (1) “a corresponding one of the mobile end-user devices” and (2) “one of a plurality of applications.”

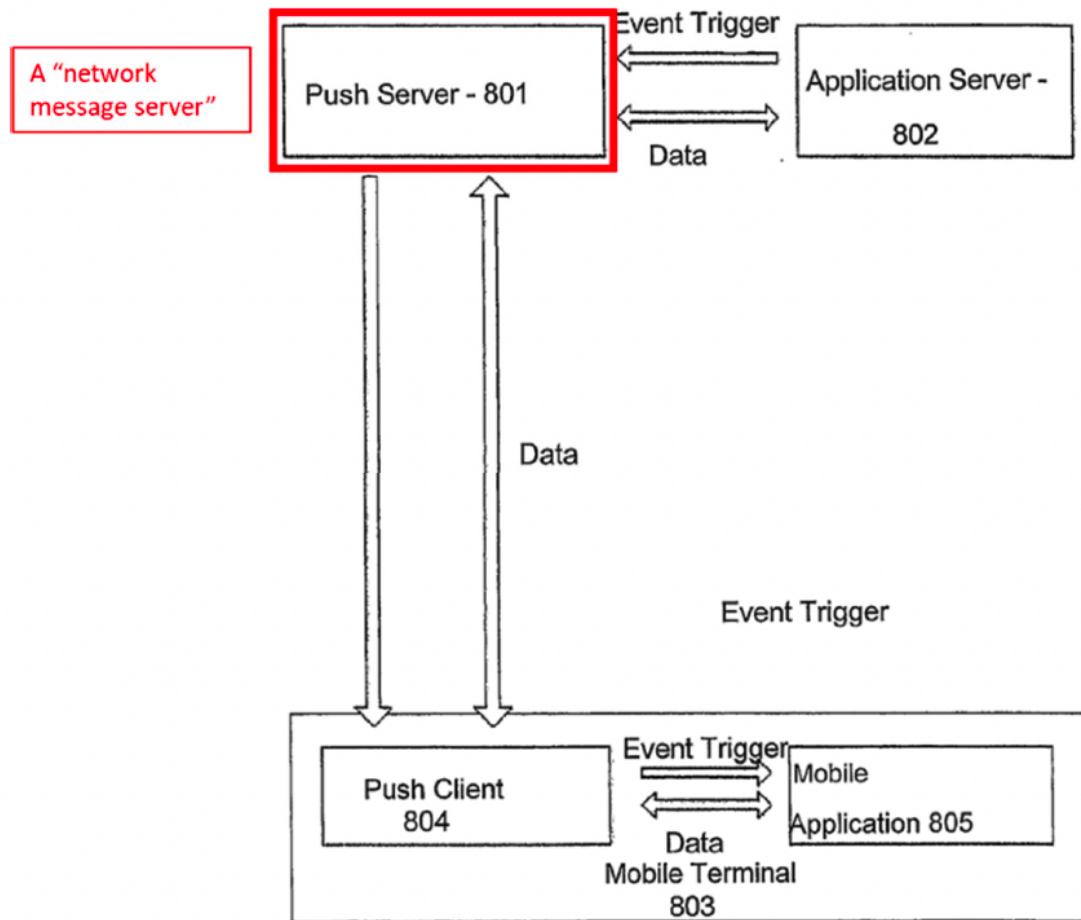
Ground 1A is the only Ground out of Grounds 1A-1C that addresses these requirements of limitation [1.3]. And although Ground 1A involves a combination of Houghton and Kalibjian, the Petition relies solely on Houghton alone as allegedly rendering the requirement that the requests received by the message server indicate both (1) “a corresponding one of the mobile end-user devices” and (2) “one of a

plurality of applications.” *See* Pet. 20-23 (mentioning Kalibjian only with respect to the requirement that there be a plurality of application servers).

As shown below, the Petition fails to show that these requirements of limitation [1.3] are disclosed or rendered obvious in its Ground 1A theory. *See* Ex. 2001 (“Brogioli POPR Declaration”) ¶¶31-44. The Petition does not even allege that each the claimed *requests received by the alleged message server in Houghton* includes information “indicating a corresponding one of the mobile end-user devices and one of a plurality of applications.” Instead, the Petition’s analysis ignores the claim language, and at most alleges that *messages sent by the message server* (rather than *messages received by the message server*, as required by limitation [1.3]) would include such information.

1. Overview of the Petition’s Ground 1A Theory

In alleging that limitation [1.3] is met, the Petition maps the claimed “network message server” to Houghton’s “push server” (*see* Pet. 17 & n.5, making clear that “push servers” includes components 202, 301, 401, 501, 701, 801, and 901). The Petition’s annotation of Houghton’s Figure 8, identifying the “push server” as being the claimed “network message server” is reproduced below.



Pet. 17 (annotating Houghton's FIG. 8).

The Petition further maps a “trigger event as for example from an application server 702” as being the claimed “request[] to transmit application data” received from an application server. *See* Pet. 21 (mapping receiving “a trigger event as for example ...¹ application server 702 to push an application command message to the

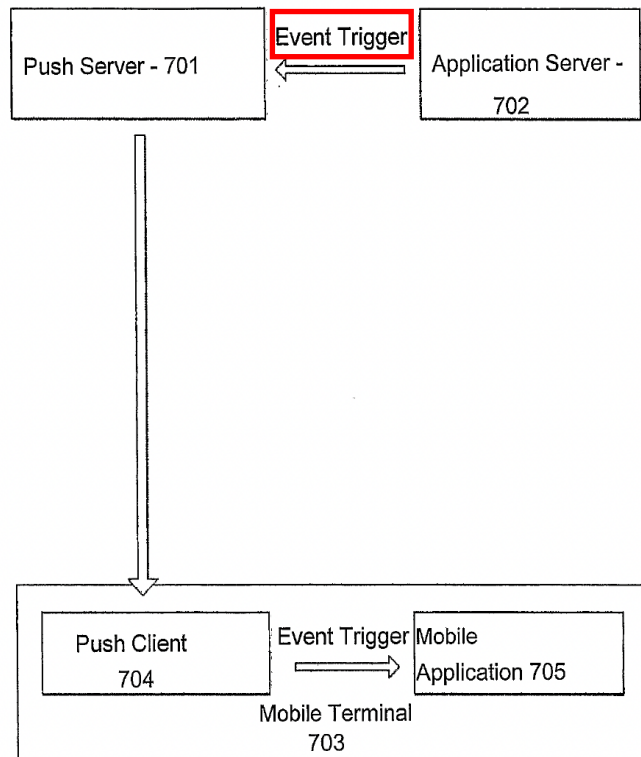
¹ The Petition, without explanation, omits that the trigger event is “*from an* application server 702.” *Compare* Pet. 21 with Ex. 1005 at 21:1-22:4.

push client 704” to the claimed “receive, from each of a plurality of network application servers, multiple requests to transmit application data”) (alterations in original, emphasis omitted).² This trigger event (or “event trigger”) sent from the application server to the push server is shown in Houghton’s FIG. 7, reproduced below.³

² Notably, the Petition *cannot* map the “application command message [pushed by push server] to the push client” as being the request received by the push server (i.e., the alleged “network message server”), because the application command message pushed by the push server to push client is a message *sent from* the push server to the push client, not a message *received from* push server as required by limitation [1.3] under the Petition’s theory that the push server is the “network message server.”

³ Houghton makes clear that an event trigger or trigger event is simply any event that triggers an action. For example, a trigger event at the push server can include “any trigger event, local or remote, defined at the [push] server,” which “may, among others, include an alarm, notification, or measurement result received to the push server 401 from another device or system.” Ex. 1005 at 21:25-29.

Furthermore, Houghton is clear that push client 701 does not actually *send* the trigger event received from the applications server to the mobile device—instead,



the push server sends “an application command message to the push client 704 [which] thereby *initiate[s]* a mobile terminal client trigger event in a mobile application 705,” which “trigger event from push client 704 to mobile application 705 may optionally include commands or data affecting the aspect of visual presentation of mobile application 705.” *Id.* at 21:35-22:6. Thus, Houghton draws a distinction between each of the following aspects of its system: (1) the trigger event from application server 702 to push server 701, (2) the command message from the push server 701 to push client 704, and (3) the mobile terminal client trigger event from push client 704 to mobile application 705. *See* Ex. 2001 ¶40.

Ex. 1005, FIG. 7 (trigger event annotated in red).

Houghton makes clear that these “trigger events”—which are sent by the application server 702 and received by the push server 701—trigger the push server to push a command message to push client 704. Ex. 2001 ¶40; Ex. 1005, 21:35-22:4 (“Figure 7 illustrates an example of a[] ‘COMMAND PUSH’ procedure where *the push server 701 is triggered by a trigger event* as for example from an application server 702 *to push an application command message to the push client 704* and thereby initiate a mobile terminal client trigger event in a mobile application from a plurality of such applications, program modules and user interface features on the terminal 705.”)⁴; *see also* Pet. 23 (acknowledging that “the push server generates ‘command’ and ‘data push messages’ for transmission... to the push client in response to a ‘trigger event’ received from an ‘application server 702’”).

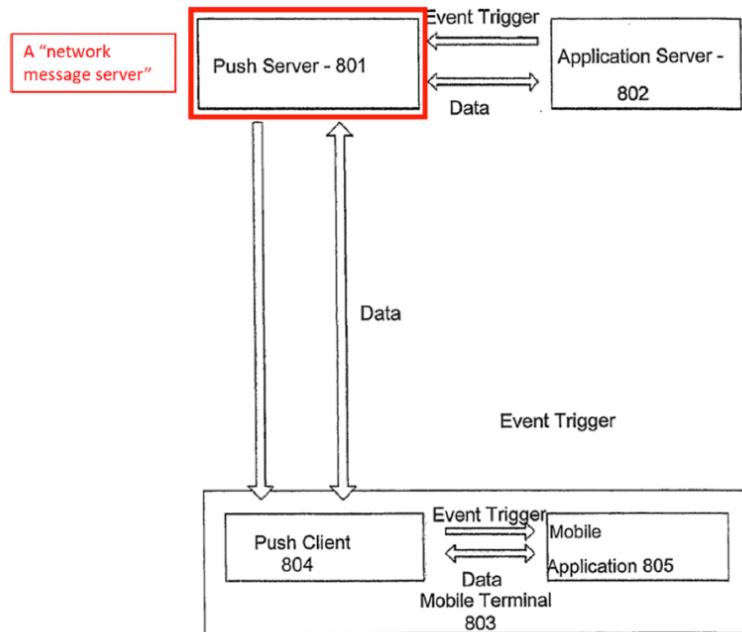
Regarding the requirement that the requests from the application server to the network message server indicate “a corresponding one of the mobile end-user devices and one of a plurality of applications” as required by limitation [1.3], the Petition alleges that this is satisfied because “Houghton discloses that command messages ‘initiate a mobile terminal client trigger event in a mobile application 705 from a plurality of such applications’ and that ‘[e]ach mobile application 205 has a fixed IP port number such as TCP/IP or UDP/IP’ used to route the message to the

⁴ All emphases herein are added unless otherwise specified.

application.” Pet. 21 (alleging that the IP address / port number information indicates “one of a plurality of applications” and “a corresponding one of the mobile end-user devices”).

2. The Petition’s Ground 1 theory fails because it focuses on what the command messages sent by the push server indicate, not on what the trigger events received by the push server indicate.

The Petition’s invalidity theory for limitation [1.3] described above is plainly deficient because it speaks at most, to what the *command messages sent from push server 701* to push client 704 indicates. It says nothing about what the *trigger events* (i.e., the alleged “requests”) that are *received by push server 701* from the application server 701 (i.e., “from each of a plurality of application servers”) indicate, which is what the Petition must show. Critically, the Petition only maps the “push server” to the claimed “network message server,” and never alleges that the “push client” could be the claimed “network message server”:



Pet. at 17 (quoting Ex. 1005 at Fig. 8, annotations added by Petition). This is unsurprising, as what the Petition alleges is the claimed a “network application server” (Houghton’s application server (*see* Pet. at 21)) does not send any messages to the push client at all, let alone claim limitation [1.3]’s “request[s] indicating a corresponding one of the mobile end-user devices and one of a plurality of applications.”

In particular, the Petition does not provide *any* evidence or allegation that the *trigger events received by the push server* (i.e., the alleged “requests” the alleged “message server” is configured to receive) include IP address or port number information (or any other data allegedly indicating both a device and application). Indeed, the only discussion of the contents of trigger events received by the push server merely alleges that these trigger events include information such as “an alarm,

notification, or measurement result,” and never contends that this information would include an IP address and port number (or any other information allegedly indicating both “one of a plurality of applications” and “a corresponding one of the mobile end-user devices”). *See* Pet. 23-25.

Indeed, there is no need for the application server itself to provide both the IP address and port number information to the push server, because as the Petition acknowledges (and as Houghton makes clear), the ***push server*** (not the application server) is involved in the “persistent managed, tested, and configured data connection... between push server 401/801 and push client 405/804.” Ex. 1005 at 23:4-9. The fact that the command message ***sent from*** the push server might be sent to an IP address and port number does not mean that the trigger event ***received by*** the push server includes an IP address and port number. *See* Ex. 2001 ¶42 (“Simply put, the fact that a command message sent from a push server to a specific IP address and port number does not require (or even imply) that the trigger event sent from application server provided an IP address and port number to the push server.”).

Nor does the Petition allege that inclusion of IP address and port number information in the trigger events received by the push server would be inherent. The Petition does not raise inherency as a theory, and thus it is not at issue in this proceeding. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1351 (2018) (“[T]he petitioner's petition . . . should guide the life of the litigation.”). Nevertheless, for the

avoidance of any doubt, inclusion of both an IP address / port number in a trigger event message from an application server to a push server is **not** inherent. *See* Ex. 2001 ¶¶42-44. As an initial matter, the push server (not the application server) is responsible for maintaining the data connection between the push server and push client. *Id.* ¶43; Ex. 1005 at 23:4-9 (making clear that a “persistent managed, tested and configured data connection... between push server 401/801 and push client 405/804” is maintained). Because the push server manages the specifics of the connection, there is no reason that an application server would need to know the specific IP address and port number for the message that will ultimately be sent by the push server. Ex. 2001, ¶43. The fact that the push server, not the application server, manages the network logistics of delivery to a particular device is also consistent with the Munson reference (which the Petition relies on for certain dependent claims). *Id.* ¶44. Specifically, Munson makes clear that application service providers do **not** need to instruct a push server how to deliver push messages to a client device—the “CPS [Content Push Service] will deal with all the details of getting the content to a client device.” Ex. 1007, ¶[0040]. Munson additionally makes clear that application servers can “push content to a group simply by naming the group,” and that they “do not need to specify each member of a group” (much less an IP address and port number for each member of a group) “for each push.” Ex. 1007, ¶[0043].

The Petition also includes no obviousness allegations with respect to the trigger event including IP address / port number information (or any other information allegedly indicating “a corresponding one of the mobile end-user devices and one of a plurality of applications”). Accordingly, in its Ground 1A analysis, the Petition fails to present even a *prima facie* case that Houghton discloses or renders obvious that the push server is configured to receive requests from application servers “indicating a corresponding one of the mobile end-user devices and one of a plurality of applications,” as required by all challenged claims. The Petition does not present any different analysis for this limitation in Ground 1B or 1C, which only challenge certain claims that depend from independent claim 1. Each of Grounds 1A, 1B, and 1C thus fail for the same reason.

B. The Petition’s Ground 2 theory fails on the merits.

The Petition’s Ground 2 relies on a combination of Lee, Ellison, and Anderson as allegedly rendering obvious Claim 1. The Petition, however, fails to set forth a *prima facie* case of invalidity in its Ground 2. *See* Ex. 2001 ¶¶45-66.

By way of background, claim limitation [1.7] requires, in part, that “for each received message,” each device messaging agent is configured to “*forward the application data* in the message to [a] software process *via a secure interprocess communication service*.” Ground 2A is the only Ground out of Grounds 2A-2C that addresses these requirements of limitation [1.7]. And while the Petition relies on a

combination of Lee with Anderson and Ellison for its Ground 2A theory, the Petition relies solely on elements of Ellison as disclosing the “secure interprocess communication service” portion of limitation [1.7]. More specifically, the Petition relies on Ellison’s “isolated area 70,” which is “a memory area that is defined by [a processor] when operating in [an] isolated execution mode” (and which the Petition alternately alleges to be Ellison’s “secure platform”) as being a “secure interprocess communication service.” *See* Pet. 83.

Ultimately, for the Petition’s theory to succeed, the alleged “secure interprocess communication service” must be configured, for each of the plurality of received push messages, to forward application data to an application (i.e., “a software process corresponding to [an] application identifier”). Ex. 2001 ¶47. But Ellison’s “isolated area 70” is unable to forward data to *any* application, because Ellison teaches that all applications are prevented from accessing isolated memory area 70. *Id.* ¶¶47-48. Specifically, Ellison teaches that *each* application within its system (Application 1 through Application N) resides in the ring-3 “normal execution” zone. Ex. 1013 at 4:26-29 (“The *normal execution ring-3, including applications 42i to 42N*, can access only ... the application pages 82. Both the normal execution ring-0 11 and *ring-3 41, however, cannot access the isolated area 70.*”). Ellison’s Figure 1A (reproduced below) depicts each of its applications 1 through N residing in normal execution ring-3, which cannot access isolated area 70:

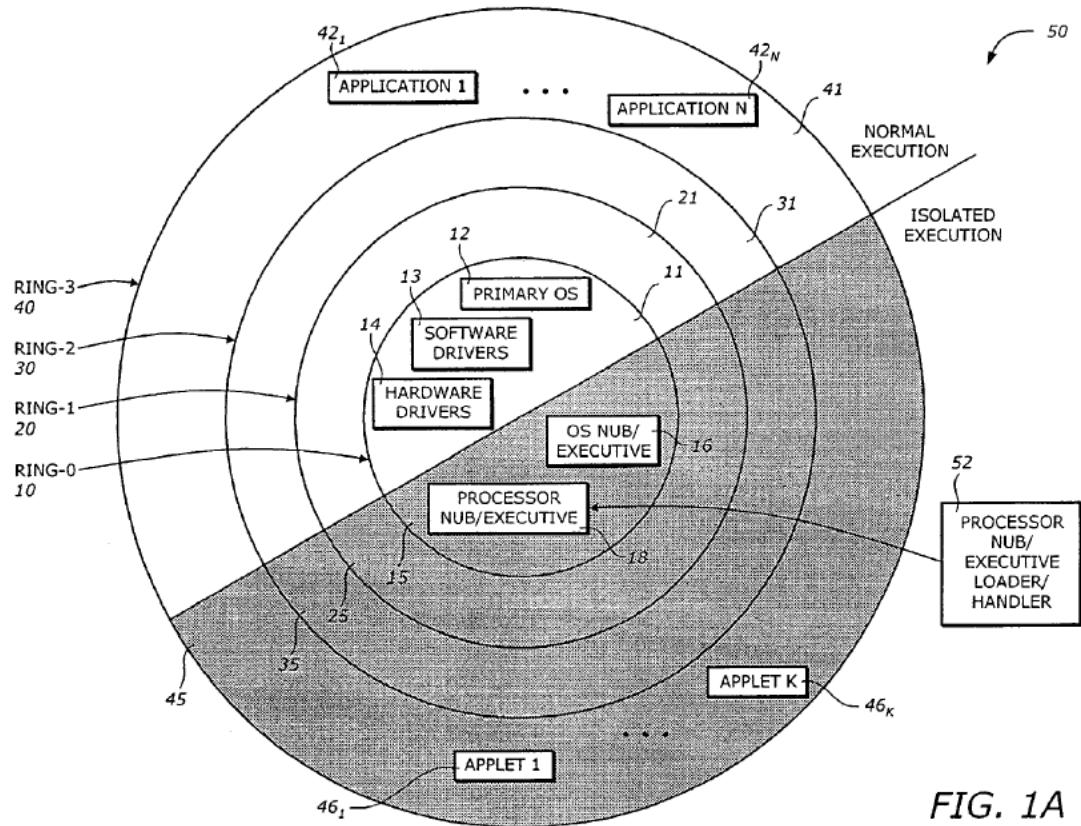


FIG. 1A

Ex. 1013, FIG. 1A. Furthermore, the Petition does not allege the obviousness of a modification to Ellison’s secure platform wherein applications would *not* operate in a normal execution environment; to the contrary, the Petition explicitly recognizes that in its proposed combination applications would continue to execute within the normal execution environment. *See* Pet. 88-89.

The Petition likewise does not establish (or even allege) that Ellison’s “secure platform” is used to forward application data to applications. Indeed, as Dr. Brogioli explains, a POSITA would understand that Ellison’s secure platform is simply a system to monitor against unauthorized data accesses, not a platform for secure

communication / forwarding of data, roughly akin to how antivirus software monitors malicious activity such as unauthorized changes to application behavior. Ex. 2001 ¶¶50-54. In particular, the “secure platform” depicted in Ellison’s Figure 2 (reproduced below) “includes the OS nub 16, the processor nub 18, a key generator 240, a hashing function 220, and a usage protector 250, all operating within the isolated execution environment, as well as a software environment 210 that may exist either inside or outside the isolated execution environment.” See Ex. 1013 at 8:22-32. “[S]oftware environment 210 may include a plurality of subsets (e.g., subset 230).” Ex. 1013 at 9:28-29.

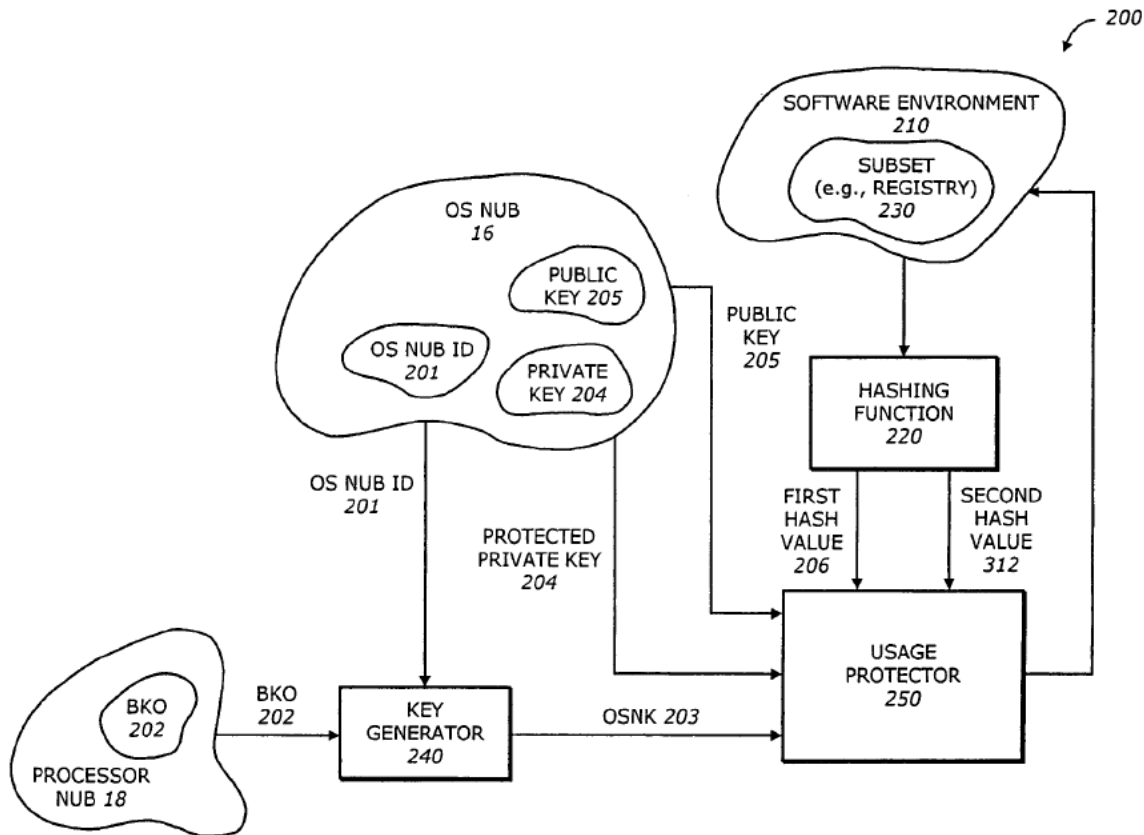


FIG. 2

Ex. 1013, FIG 2.

The ultimate goal of this secure platform is to allow usage protector 250 to protect software environment 210 and/or subset 230 from intrusion or modification. *See* Ex. 1013 at 9:25-32 (“The usage the software environment 210 or the usage of the subset 230 is protected by the usage protector 250.”); Ex. 2001 ¶52. As Ellison teaches and Dr. Brogioli explains, the usage protector protects the usage of software environment 210 / subset 230 by taking one hash value of subset 230 at a first time, taking a second hash value of subset 230 at a second time, and comparing the hash values to see if there has been an unauthorized access to subset 230 in the duration of time between the hash values were created:

The subset 230 is hashed by the hashing function 220 to produce a first hash value 206 and a second hash value 312. One way to detect intrusion or modification of the subset 230 is to compare the state of the subset before and after a time period. The first and second hash values 206 and 312 are typically generated at different times and/or at different places.

The usage protector 250 is coupled to the key generator 240 to protect usage of the software environment 210 or the subset 230, using the OSNK 203. The usage protection includes protection against unauthorized reads, and detection of intrusion, tampering or unauthorized modification. ***If the two hash values are not the same, then the usage protector 250 knows that there is a change in the subset 230.*** If it is known that this change is authorized and an updated

hash value has been provided, the usage protector 250 would merely report the result. Otherwise, the usage protector 250 may generate an error or a fault function. *When a user is notified of the error, fault condition, he or she would know that the subset 230 has been tampered, modified. The user may take appropriate action. Therefore, the usage of the subset 230 is protected.*

Ex. 1013, 9:40-62; Ex. 2001 ¶¶52-53. While Ellison goes on to describe “several different embodiments of the usage protector 250,” these embodiments differ only regarding the specific mechanisms by which “usage protector 250 decrypts the subset” 230. *Id.* at 9:63-10:3 (stating that decryption may be accomplished using some combination of the OSNK 203, hash values 206 and 312, and the protected private key 204 and public key 205).

Thus, Ellison’s “secure platform” of Figure 2 is not a “communication service,” but is instead a mechanism by which the system can identify unwanted system changes. Ex. 2001 ¶54. And Ellison’s “secure platform” is not used to *forward* data at all; nor does the Petition allege that it would be or even could be used to forward data. Instead, the Petition alleges only that Ellison’s secure platform would have protected *applications* from malware, rather than providing security via a communications service through which the malware would be *forwarded* to an application (as the limitation [1.7] would require under Petition’s theory). *See* Pet. 85 (“Accordingly, Ellison’s secure platform would have provided protection for

applications receiving push messages in Lee’s push message system (e.g., malware contained within a push message would be detected using the usage protector 250’s hashing function.”). As Dr. Brogioli explains, this proposed solution would not create security for whatever communications service (such as a communications bus) was used to *forward* the push data, but would instead only protect the application from potential security risks that might occur *after* the push data had already been received by the application. Ex. 2001 ¶¶55-56. The Petition’s proposed combination therefore does not disclose or render obvious claim limitation [1.7].

As Dr. Brogioli explains, a POSITA would recognize a difference between the claims of the ’117 Patent—which recite a secure “communication service”—and the disclosures of Ellison which relate to the security of a process that may send or receive data over a communication service (such as an application that might receive malicious data over an unsecured system bus). Ex. 2001 ¶57. By way of analogy, a computer downloading an executable file over an unsecured public communications channel (such as public Wi-Fi) does not download data “via a secure communication service.” *Id.* That remains true even if strict security protocols (such as extensive antivirus and other security measures) are implemented on computer receiving the downloaded data. *Id.* Even with antivirus protocols installed on the computer receiving the data that does not turn the *communication service* used to download the file (i.e., the unsecured public Wi-Fi) into a “secure communication service.” *Id.*

In other words, security protocols provided at an entity that receives a communication via a communication service are insufficient to turn that communication service into a “secure communication service.” *See Ex. id.* (“As a general matter, a POSITA would have recognized that security provided beyond the endpoint of a communication service (e.g., at an element that sends or receives data via the communication service) does not transform an otherwise unsecured communication service into a secure communication service.”). Yet under the Petition’s theory (which does not even address the security of the communication service used to forward the data at issue), data would be forwarded over “a secure interprocess communication service”—even if the service used to forward the data had no security measures at all—so long as the receiving application had at least some security measures to protect itself against the risks involved in receiving data (including malware) over the unsecure communication service. That understanding is inconsistent with the plain meaning of the plain meaning of “forward the application data in the message to the software process via a secure interprocess communication service.” Ex. 2001 ¶56 (“Dr. Traynor’s proposal, while it would provide a certain type of security protection, does not constitute a secure interprocess communication service that is used to forward data....”).

The Petition itself does not provide any justification for this deviation from plain meaning. *See* Pet. 83-85 (providing no discussion of the proper interpretation of “forward[ing] ... data ... via a secure interprocess communication service”).

Dr. Traynor’s declaration also does not propose any definition for “secure interprocess communication service.” *See* Ex. 1003 at ¶¶134-137. Instead, Dr. Traynor simply quotes a portion of the ’117 Patent specification relating to an “interprocess software communication bus” as being relevant to the interpretation of “secure interprocess communication service,” without explaining how that portion of the specification should impact understanding of the claim term. *See* Ex. 1003 ¶135 (quoting Ex. 1001 42:45-43:4).

Even assuming Dr. Traynor’s quotation to the ’117 Patent specification was an attempt to provide some sort of implicit construction of “secure interprocess communication service,” that quotation does not support the Petition’s allegation that Ellison’s “isolated area 70” or “secure platform” constitutes a “secure interprocess communication service” that is used to forward application data between processes. Ex. 2001 ¶¶58-65.

As an initial matter, as Dr. Traynor acknowledges, the quoted portion of the ’117 Patent specification refers to an “interprocess software communication **bus**.” Ex. 1003 ¶135 (“While the ’117 patent does not explicitly define a ‘secure interprocess communication **service**,’ it does describe an ‘inter-process software

communication *bus.*”). But equating a “communication service” with a “communication bus” *undermines* the invalidity theory of the Petition, because neither Ellison’s “isolated area 70” nor its “secure platform” are (or are even alleged to be) a communication bus. Ex. 2001 ¶¶60-61.

The actual quotation of the ’117 Patent provided by Dr. Traynor also does not support any conclusion that Ellison’s “isolated area 70” or “secure platform” are “secure interprocess communication service[s]” used to forward application data. Ex. 2001 ¶¶62-64. Dr. Traynor’s quotation of the ’117 Patent specification is reproduced below:

In some embodiments of the agent communication bus 1630, the design of the agent communication bus depends on the nature of the design embodiments for the agents and/or other functions. **For example, if the agents are implemented largely or entirely in software, then the agent communication bus can be implemented as an inter-process software communication bus.** In some embodiments, such an inter-process software communication bus is a variant of D-bus ... or another inter-process communication protocol or system, running a session bus in which **all communications over the session bus can be secured, signed, encrypted or otherwise protected.** For example, the session bus can be further protected by **storing all software ... in secure memory, storing all software in encrypted form in secure memory, and/or executing all software and communications within a secure execution environment, hardware environment and/or protected memory space.**

Ex. 1003 ¶ 135 (emphases in original, quoting Ex. 1001, 42:45-43:4).

As noted above, this discussion relates to a “communication bus” (or a “session bus”), and the Petition has not mapped a “communication bus” or “session bus” in Ellison (or any other reference for Ground 2) as being a “secure interprocess communication service.” *See* Ex. 2001 ¶61. Furthermore, this portion of the specification states that protection or security of the communication bus can be accomplished in various ways, none of which the Petition alleges would be present in Ellison (or any combination involving Ellison). The specification implies that a secure bus can be implemented if “all communications over the session bus can be secured, signed, encrypted or otherwise protected.” Ex. 1001 at 42:51-58. But the teachings of Ellison on which the Petition relies do not provide for the security of “communications” over any bus being used to transmit data, and are instead focused the security of applications that could receive data over a bus. Ex. 2001 ¶64. The Petition does not even allege Ellison (or any combination involving Ellison) would involve securing, signing, encrypting, or otherwise protecting all communications over a bus.

The specification also states that “the session bus can be further protected by *storing all software... in secure memory*, storing all software in encrypted form in secure memory, *and/or executing all software and communications within a secure execution environment, hardware environment and/or protected memory*

space.” Ex. 1001 at 42:58-64. But again, Ellison does not (and is not alleged to) disclose “storing *all software*” in secure memory (encrypted or otherwise), nor does it disclose “executing *all software and communications* within a secure environment, hardware environment and/or protected memory space.” Ex. 2001 ¶65. Instead, Ellison plainly teaches that a large portion of software is stored and executed *outside* of a secure execution environment. *See, e.g.*, Ex. 1013 at FIG 1A (showing all applications being executed within a “normal execution” environment, as opposed to other aspects of the system that execute in an “isolated execution” environment). Ellison’s isolated area and secure platform also do not relate to executing “communications” within a secure environment; as explained previously, at most those teachings relate to securing a software environment (such as an application) *after* the application has already received an unsecure communication.

For all the reasons discussed above, Ellison’s “isolated area 70” and “secure platform” do not constitute a “secure interprocess communication service” that could be used to forward application data. Nor does the Petition provide any allegation or evidence that the teachings of Ellison would somehow be modified to arrive at that claim requirement. *See generally* Pet. 83-85 (regarding the proposed combination, alleging that “Ellison’s usage protectors would have protected the recipient applications against unauthorized access or modification,” but not explaining how Ellison’s teachings would have secured the communication service itself, rather than

simply protecting the application from the negative effects of unsecured communications). Accordingly, the Petition fails to show that its proposed combination discloses or renders obvious limitation [1.7]. The Petition does not present any different analysis for this limitation in Ground 2B or 2C (labeled as “3C” in the summary of Grounds provided on page 1 of the Petition), which only challenge certain claims that depend from independent claim 1. Each of Grounds 2A, 2B, and 2C thus fail for the same reason.

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. 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*”); *see also* Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (dated June 21, 2022) (“Interim Discretionary Denial Memo,” Ex. 1020).

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, and a stay is unlikely given the advanced stage of the case. For Factor 2, the district court trial will occur nearly five 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, the parties will have exchanged infringement contentions, invalidity contentions, claim construction disclosures, and claim construction expert reports; fact discovery will also be well underway. For Factor 4, there is substantial overlap in both the claims and art at issue in this proceeding and in the district court; Petitioner's limited *Sand Revolution* stipulation does little to quell the concerns of inefficiency and inconsistent rulings. For Factor 5, Petitioner is one of the defendants in the parallel litigation. And for Factor 6, not only did Petitioner unduly delay in filing the Petition, but the Petition also fails to present a compelling challenge on the merits. 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 claims of the '117 Patent and Petitioner, the district court has not granted a stay pending IPR. Although Petitioner has requested a pre-institution stay of litigation, and the

district court has not ruled on that motion, it is very unlikely that motion will be granted, as it is Judge Gilstrap's practice to deny pre-institution stay requests as a matter of course. *See, e.g., Viavi Solutions Inc. v. Zhejiang Crystal-Optech Co.*, No. 2:21-cv-00378-JRG, 2022 WL 16856099, at *5 (E.D. Tex. Nov. 10, 2022) (Gilstrap, J.) ("It is the Court's established practice to consider that motions to stay pending IPR proceedings which have not been instituted are inherently premature and should be denied as such. At this nascent stage of the PTAB proceedings, it is impossible for the Court to determine whether the stay will likely result in simplifying the case before the court.") (quotation marks omitted).

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 and invalidity contentions; fact discovery is also well underway. Ex. 2003 at 5-6. And by the time the Board's institution decision is due in this proceeding (May 28, 2024), the parties will have exchanged claim construction disclosures and claim construction expert reports, Patent Owner will have largely prepared its claim construction briefing, fact discovery will be in its final stages, and trial will be just seven months away. *See id.* at 1, 4-5. And trial is currently set for January 6, 2025—nearly five months before the earliest deadline for a final written decision in this IPR. *Id.* 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”).

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 nearly five 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 May 28, 2025, which may be extended to January 28, 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 January 6, 2025. *See* Ex. 2003 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 (Ex. 1020) 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 19.6 months after filing. Ex. 2004 (indicating median times to trial for civil cases for the twelve-month period ending in December for 2018-2023 as 19.0, 17.8, 17.5, 23.0, 19.0, and 21.4). Here, trial is set approximately 22 months after the cases were filed. *See* Ex. 2003 at 1 (trial set for January 6, 2025); Ex. 1004 at 24 (parallel case filed March 10, 2023).

Thus, the district court trial is set to occur *about five months* before the deadline for a final written decision, and possibly nearly a year before the deadline if extended. This weighs heavily against institution. *See, e.g., 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).

Indeed, the Board has denied institution on account of even substantially smaller gaps between the final written decision and trial. *See, e.g., EClinicalWorks, LLC v. Decapolis LLC*, IPR2022-00229, Paper 10 at 9 (PTAB Apr. 13, 2022) (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 this set trial date “[b]ecause the Court’s trial date is speculative at this point and subject to change.” Pet. at 103. But the Petition presents no evidence that trial 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* Interim Discretionary Denial Memo (Ex. 1020) 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).

Because the district court trial is currently set to occur nearly five months before the earliest deadline for a final written decision in this IPR, this 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, both fact discovery and claim construction proceedings will be well underway.

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). Here, the parties have already exchanged infringement contentions and invalidity contentions, and by the time the institution decision issues, the parties will also have exchanged claim construction disclosures and claim construction expert reports. Ex. 2003 at 5-6. Fact is likewise already well underway, with both sides collectively serving and responding to 31 interrogatories and 9 requests for admission; extensive document production has also already occurred. And by the time the institution decision issues, the deadline to substantially complete document production and to exchange privilege logs only days away. *Id.* at 5. In addition, the deadline for Patent Owner’s principal claim construction brief will also be days away. *Id.* Realistically, Patent Owner will have to begin work on the claim construction brief before receiving the institution decision, further adding to the parties’ investments under Factor 3. Those 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 at similarly advanced stage as here. *See, e.g., BOE Tech. Grp. Co. v. Element Capital Commercial Co.*, IPR2023-00808, Paper 9 at 23-24 (PTAB Nov. 15, 2023) (denying institution in part because “[s]ignificant discovery has been completed, including the exchange of infringement and invalidity contentions, document requests and interrogatories, and proposed claim terms for construction, and ... close of fact discovery is near”).

Of course, the reason that the district court litigation will be so far along at the time of institution is because Petitioner unduly delayed in filing the Petition, filing over seven months after waiving service of the district court complaint. *Compare* Pet. at 106 (dated November 17, 2023) *with* Ex. 2005 at 2 (Petitioner waived service on March 31, 2023). The Petition offers no explanation for Petitioner’s delay.

Because there has been substantial investment in the parallel proceedings, and Petitioner 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, there is substantial overlap between the

challenged and asserted claims, and 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 1-18) *with* Ex. 2006 at 2 (infringement contentions asserting claims 1, 2, 4-6, 9-14, and 16-18). Although there are additional claims challenged in the Petition (claims 3, 7, 8, and 15), each of these are dependent claims that depend from the sole independent claim (claim 1) and the Petition applies the same prior art references against claims 3, 7, 8, and 15 as it does against those claims that are asserted in the parallel litigation. *See* Pet. at 1 (applying the combination of Houghton and Kalibjian against non-asserted claims 3, 7, and 8 as well as asserted claims 1, 4-6, and 9-13; applying the combination of Houghton, Kalibjian, and Rakic against non-asserted claim 15 and asserted claim 14; applying the combination of Lee, Ellison, and Anderson against non-asserted claims 3 and 15 as well as asserted claims 1, 4-6, 9-11, and 13-14; applying the combination of Lee, Ellison, Anderson, and Houghton against non-asserted claims 7 and 8 as well as asserted claim 12).

“[A]lthough 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, Petitioner relies on the same prior art and same prior art combinations in the district court as it does in this proceeding. The Petition presents the following six obviousness grounds, with only the two bolded grounds relied upon for the sole independent claim:

- 1. Houghton (WO 2006/077283, Ex. 1005) and Kalibjian (US 2007/0011736, Ex. 1006);**
2. Houghton, Kalibjian, and Munson (US 2009/0240807, Ex. 1007);
3. Houghton, Kalibjian, and Rakic (US 2009/0282256, Ex. 1008);
- 4. Lee (WO 2008/048075), Ellison (US 7,082,615), and Anderson (Security Engineering, Second Edition, Ex. 1010);**
5. Lee, Ellison, Anderson, and Hamalainen (US 2007/0214245, Ex. 1018); and

6. Lee, Ellison, Anderson, and Houghton.

See Pet. at 1. Three of the six grounds (items 1, 4, and 5) are expressly presented in Petitioner's invalidity contentions in the co-pending litigation, and the three other grounds (item 2, 3, and 6) are substantially similar to grounds presented in the invalidity contentions:

1. **Houghton and Kalibjian:** *See* Ex. 2007 at 10-11 (listing these two references); *id.* at 27 (chart B-01 (Ex. 2008) corresponds to Houghton and chart B-09 (Ex. 2009) corresponds to Kalibjian); *id.* at 32 (indicating that the references in charts B-01 (Houghton) and B-09 (Kalibjian) may be combined).
2. Houghton, Kalibjian, and Munson: *See* above analysis for item 1; Ex. 2007 at 10-11 (listing the Munson application on which the Petition relies as well as the issued version (US 8,271,683)); *id.* at 27 (chart B-11 (Ex. 2010) corresponds to the issued version of Munson); *id.* at 32 (indicating that the references in charts B-01 (Houghton), B-09 (Kalibjian), and B-11 (issued Munson) may be combined).
3. Houghton, Kalibjian, and Rakic: *See* above analysis for item 1; Ex. 2007 at 11 (listing the Rakic reference); Ex. 2011 (chart B-B) at 2 (same); Ex. 2007 at 31 (indicating that Houghton may be combined with references listed in chart B-B, including Rakic); *id.* at 32

(indicating that Kalibjian may be combined with references listed in chart B-B, including Rakic); *id.* (indicating that the references in charts B-01 (Houghton) and B-09 (Kalibjian) may be combined).

4. **Lee, Ellison, and Anderson:** *See id.* at 10-11, 13 (listing these three references); *id.* at 27 (chart B-10 (Ex. 2012) corresponds to Lee); Ex. 2011 (chart B-B) at 2-3 (listing Ellison and Anderson); Ex. 2007 at 32 (indicating that Lee may be combined with one or more references listed in chart B-B, including Ellison and Anderson).
5. Lee, Ellison, Anderson, and Hamalainen: *See* above analysis for item 4; Ex. 2011 (chart B-B) at 2 (listing Hamalainen); Ex. 2007 at 32 (indicating that Lee may be combined with one or more references listed in chart B-B, including Ellison, Anderson, and Hamalainen).
6. Lee, Ellison, Anderson, and Houghton: *See* above analysis for item 4; Ex. 2007 at 27 (chart B-01 (Ex. 2008) corresponds to Houghton); *id.* at 32 (indicating that the references in charts B-01 (Houghton) and B-10 (Lee) may be combined).

There is thus substantial overlap in the prior art invalidity theories presented to the PTAB and the district court.

Further, Petitioners limited *Sand Revolution* stipulation that, “if the PTAB institutes IPR2024-00003, Samsung agrees not to pursue the same grounds ... in the

district court litigation” (Ex. 1023; Pet. at 104) does not alleviate inefficiency concerns. *See* Interim Discretionary Denial Memo (Ex. 1020) at 3; *see also, e.g., 3Shape Trios A/S v. Densys Ltd.*, IPR2021-00236, Paper 12 at 11-12 (PTAB May 20, 2021) (denying institution, rejecting a similar stipulation because it “is too narrow to clarify that it will not pursue any ground that could have reasonably been raised in an IPR,” and noting that “a broader stipulation might better address concerns regarding duplicative efforts and potentially conflicting decisions”). With this *Sand Revolution* stipulation, as opposed to a *Sotera* stipulation, Petitioner is agreeing to far less than what would be the natural consequences of the case proceeding to a final written decision. *See, e.g., Cal. Inst. of Tech. v. Broadcom Ltd.*, 25 F.4th 976, 991 (Fed. Cir. 2022) (“overrul[ing] *Shaw* and clarify[ing] that estoppel applies not just to claims and grounds asserted in the petition and instituted for consideration by the Board, but to all grounds not stated in the petition but which reasonably could have been asserted against the claims included in the petition”).

And this stipulation is especially meaningless here, where Petitioner intends to rely on the issued versions of the Munson and Hamalainen applications on which they rely in the Petition (Ex. 2007 at 10; Exs. 1007, 1018). *See Vector Flow, Inc. v. HID Global Corp.*, IPR2023-00353, Paper 8 at 22 (PTAB July 17, 2023) (finding a substantial overlap in grounds where, in the parallel litigation, petitioner relied on the issued version of the application it relied on in the IPR as well as other references

with similar disclosures).

Moreover, and perhaps critically, many of the invalidity contentions' purported anticipation and obviousness grounds utilize the same art relied upon in the Petition. *See* Ex. 2007 at 27 (Houghton, Kalibjian, Lee, and Munson anticipation grounds); *id.* at 31-32 & Ex. 2011 (multitudinous obviousness grounds involving one or more of the Petition's references); *NXP* at 12 (finding that the fact that the same art was asserted in both proceedings weighed in favor of discretionary denial). And Petitioner's invalidity contentions are voluminous, such that other identified art likely contain cumulative disclosures as the art cited in the Petition as well. *See generally* Exs. 2007-2012; *see also Samsung Elecs. Co. v. Mojo Mobility Inc.*, IPR2023-01094, Paper 11 at 13 (PTAB Feb. 9, 2024).

In short, the Petition challenges the same claims asserted in the parallel litigation, and uses the same art as relied upon in 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 one of the defendants in the district court litigation.

Petitioner is one of the defendants in the parallel litigation. "Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial." *Fintiv II* at 15.

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 two 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 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 (Ex. 1020) at 2-5) and fails to establish a reasonable likelihood of success. Second, there is evidence that Petitioner unduly delayed in filing the Petition, as discussed above for Factor 3, and Petitioner offers no explanation for its delay. *See supra* § VI.C.

* * *

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 lawsuit in light of Petitioner's delay in filing the Petition.

Date: February 28, 2024

Respectfully submitted,

/Reza Mirzaie/

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CERTIFICATION REGARDING WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Patent Owner certifies that there are 9,301 words in the paper excluding the portions exempted under 37 C.F.R. §42.24(a)(1).

Date: February 28, 2024

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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 February 28, 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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