

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO. LTD.,
Petitioner,

v.

HEADWATER RESEARCH LLC,
Patent Owner.

IPR2024-00010
Patent 9,615,192 B2

PATENT OWNER'S SUR-REPLY

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I. Introduction

Both grounds 1 and 5 (the only grounds challenging independent claims 1 and 15 and dependent claim 9 of the '192 patent) fail. Rather than defend the theories originally advanced in the Petition, Petitioner's Reply rests almost entirely on new theories of invalidity. These improper new theories should not be considered, but even if they are, they are substantively deficient.

II. Petitioner's Grounds 1-4 fails to show unpatentability of any challenged claim.

A. TS-23.140 does not disclose or render obvious "a plurality of message delivery triggers" as recited by limitations [1d3]/[15d2].

Claim 1 requires "logic to determine when one of a plurality of message delivery triggers... has occurred," and claim 15 recites a similar requirement. Ex. 1001, cl. 15 ("determining when one of a plurality of message delivery triggers... has occurred"). As noted in Patent Owner's Response, TS-23.140 teaches the use of only a *single* message delivery trigger—the receipt of a valid retrieval request from the MMS User Agent. *See* Ex. 1004, 29 ("Upon retrieval request the recipient MMS Relay/Server *shall* deliver the MM to the recipient MMS User Agent."). Ex. 2001, ¶¶43-66; POR 10-23.

As explained below, the Reply fails to provide competent evidence or reasoning to the contrary.

1. The Reply’s new theory that message delivery triggers themselves constitute “a plurality of message delivery triggers” should be rejected as untimely and unsupported.

The Petition identified the recipient MMS User Agent “request[ing] message retrieval” as only a *single* type of message delivery trigger. Pet. 21-22 (identifying “[t]he recipient MMS User Agent request[ing] message retrieval” as “one” of a trigger”). The Petition never alleged that the conditions surrounding a message retrieval request (such as whether a user manually requests retrieval or an application automatically does so) makes the same message sent from a User Agent into *two different* retrieval requests, and neither the Petition nor the Reply explains why the *cause* of the retrieval request (i.e., an automatic or manual cause) makes the retrieval request into different types of message delivery triggers. *See* Pet. 21-22; Reply 3-4.

As an initial matter, the argument that a message retrieval request can constitute multiple “message delivery triggers” based on what caused the message retrieval request is an entirely new invalidity theory that should be disregarded.

Furthermore, Petitioner does not explain why the circumstances causing or surrounding a message retrieval request could constitute *a plurality* of message delivery triggers, even though the exact same “message retrieval request” could be received at the MMS Relay/Server regardless of whether the retrieval request was initiated automatically or manually. If the specific cause of a request constituted “a plurality of message delivery triggers,” then messages sent by two different applications or two different application servers (or even two different individuals) could constitute “a plurality of message delivery triggers.” This would be true under Petitioner’s logic, *even though the triggers are exactly the same in substance* (i.e., two message delivery requests having identical content, but being sent under different conditions). Petitioner provides no support for such a broad interpretation of “a plurality of message delivery triggers” that would effectively read the term out of the claim, given that no two messages (even if directed from the same message link server to the same receiving device) will ever have the *exact same* circumstances regarding their delivery (e.g., the time of delivery would at least be slightly different, as one would need to be transmitted at least slightly before the other).

Finally, Petitioner’s new theory is inconsistent with surrounding claim language, which requires that the message link server have “logic to determine when

one of a plurality of message delivery triggers... has occurred.” Ex. 1001, 167:30-35. If “automatic retrieval request” is “one of a plurality of message delivery triggers,” and “manual retrieval request” is another “one of a plurality of message delivery triggers,” then Petitioner would need to show that the message link server has logic either to determine whether an “automatic retrieval request” has occurred, or logic to determine whether a “manual retrieval request” has occurred. But Petitioner, even in Reply, presents no evidence that the MMS Relay / Server (the alleged “message link server”) would be able to determine that either a “manual” or “automatic” retrieval request has occurred (as opposed to simply determining that “a retrieval request” has occurred).

In sum, Petitioner’s new theory that a situation where “[t]he recipient MMS User Agent requests message retrieval” (Pet. 22) should be rejected as untimely, and also rejected as overly broad, and also rejected because the message link server does not have logic to determine whether an “automatic” message delivery request or a “manual” message delivery request has been received.

B. Petitioner’s other theories also fail.

Petitioner argues that size restriction, MMS User Agent being available, and message notification are all message delivery triggers. *See* Pet. 5-10. However, *all* of these alleged “message delivery triggers” fail because they all improperly rely on

a condition “that ***must*** occur before a message is delivered.” *See* Pet. 11-12 (alleging that “message delivery trigger” cannot be distinguished “from a condition that must occur before [a] message is delivered,” and arguing that “the ’192 specification” supports this interpretation). Petitioner’s interpretation is contrary to plain meaning, the surrounding claim language, and even Petitioner’s own newly submitted evidence.

Specifically, the plain meaning of a “message delivery trigger” is something that ***triggers*** message delivery, not something ***necessary*** for message delivery (i.e., not something that “must occur” before message delivery as Petitioner argues). Petitioner does not provide any logical reason why “message delivery trigger” applies to things that “must occur” rather than things that are sufficient to trigger a message delivery process.

As examples of Petitioner’s flawed logic in this regard, Petitioner explicitly alleges that “a [messaging server] having a working power source” is ***not*** a “message delivery trigger.” Reply 11 n.6; POR 21-22. ***But it is abundantly obvious that a messaging server having a working power source is something that “must occur” before a message is delivered.*** Petitioner’s proposed interpretation of “message delivery trigger” plainly and unambiguously encompasses a messaging server having a working power source, yet Petitioner admits that “a working power source”

being a message delivery trigger in the context of the '192 patent is not a tenable position such that Petitioner has explicitly disclaimed that position. Reply 11 n.6. Petitioner's failure to accept the logical conclusion of its own claim interpretation makes clear that Petitioner's claim interpretation is flawed.

Petitioner's interpretation is also inconsistent with Petitioner's own (newly submitted) extrinsic evidence. For example, Samsung alleges that a "trigger" involves both a "condition and an associated action" such that "[i]f the condition is satisfied, the rule is triggered." Reply 11 (quoting Ex. 1042). In this sense, a "message delivery trigger" would specify that "if the condition is satisfied, [message delivery] is triggered." This, however, is describing a *sufficient* condition (i.e., something that *will* trigger message delivery), not a *necessary* condition (i.e., something that "must occur before message delivery" as Petitioner alleges the term should be interpreted." *See Greene v. Doruff*, 660 F.3d 975, 978 (7th Cir. 2011) ("*A necessary condition is something that has to happen for something else to happen. Being human is a necessary condition of going to college, because colleges do not admit other animals. A sufficient condition is something that, if it is present, something else is bound to happen*; so being human is not a sufficient condition of going to college, because not all human beings go to college.")). In other words, Petitioner's own extrinsic evidence confirms that a "message delivery trigger" is

something that is *sufficient* for message delivery to be triggered, contrary to Petitioner’s unfounded allegation that a “message delivery trigger” is something that “*must* occur” for message delivery.

Only by pointing to *necessary* conditions (things that “must” occur for message delivery but are not *sufficient* for message delivery) does the Petition arrive at “a plurality of message delivery triggers,” because of course many things *must* happen before the server triggers message delivery (such as, e.g., a working power source for the message link server, or “the receipt of... a message by the message buffer system” recited in claim 1) are *necessary* before the buffered message can be delivered. But the plain meaning of “message delivery trigger” under Petitioner’s own logic and evidence is a reference to a *sufficient* condition.

Petitioner’s interpretation—that a message delivery trigger is something that “must occur” before the message is delivered—is also *inconsistent with Petitioner’s own claim mapping*. Specifically, Petitioner purports to allege that “for at least some of the received network element messages, the receipt of such a message by the message buffer system is not a message delivery trigger” as recited by claim 1. Petitioner’s reasoning in this regard is that “a POSITA would have found obvious that message receipt *alone* would not trigger message delivery.” Pet. 23. In other words, Petition alleges that “message receipt” is not a message delivery trigger

because it is not *sufficient* to trigger message delivery. Patent Owner agrees with this analysis, but Petitioner cannot (and does not even attempt to) square that analysis with Petitioner’s contradictory allegation that a message delivery trigger is something that “must occur” before message delivery. Of course, a message *must* be received by the message buffer system before that message *can be* delivered, but as Petitioner itself acknowledges, that does not make the reception of the message a “message delivery trigger” in the context of the ’192 patent.

With the *correct* understanding of “message delivery trigger” in mind (i.e., a condition *sufficient* to cause message delivery), Petitioner does not dispute that a valid¹ message retrieval request (which the Petition alleges would be in combination

¹ Petitioner contends that there is no concept of a “valid retrieval request,” (Reply at 6), but does not dispute Dr. Brogioli’s testimony that a POSITA would understand a valid retrieval request to be “a retrieval request conforming to the TS-23.140’s requirements, including being within the message expiry period and having an appropriate size restriction.” Of course, the size restriction may be non-existent as Petitioner acknowledges, but *no* size restriction is obviously appropriate for message delivery so long as the other requirements for the retrieval request are met (e.g., message expiry period not having expired).

with device availability)² is the **only** thing that is a sufficient condition for the message delivery process to be triggered. Petitioner identifies **no other** conditions that could even arguably be sufficient for message delivery, because Petitioner identifies no possible way for a message to be delivered **without** a message retrieval request.

For example, an appropriate size restriction (Reply at 5-7) is not sufficient for message delivery, because as Dr. Brogioli explains, a message retrieval request (even with an appropriate size restriction) could be received, but if the message has expired the message will not be delivered, such that an “appropriate size restriction” is insufficient to trigger message delivery. Ex. 2001, ¶57. Petitioner, in fact, acknowledges that it is the combination of appropriate message retrieval elements “that **together** trigger message delivery” (Reply at 7), making clear that an appropriate size restriction “**alone** would not trigger message delivery.” Cf. Pet. 23 (alleging that message receipt is not a message delivery trigger because “message receipt **alone** would not trigger message delivery”). Instead, only a **valid** message retrieval request would be sufficient to trigger the message delivery process, and

² See Reply at 8 (“message delivery is triggered upon receiving the retrieval request **and** upon the Relay/Server determining the device’s network reachability/availability”) (emphasis in original).

only the combination of a valid retrieval request in conjunction with receiving User Agent availability would be sufficient to trigger the actual completion of message delivery.

For the same reason, the “MMS User Agent becoming available/reachable” (Reply at 7-9) is not itself a message delivery trigger. While Patent Owner believes that this is part of the message delivery *process*, to the extent it is not, then both the combination of User Agent availability *and* valid message retrieval request reception would be the only condition sufficient to cause message delivery for any particular message.

Likewise, “the MMS Relay/Server sending a notification message (MM notification)” (Reply at 9-10) is not a message delivery trigger because the MMS Relay/Server sending a notification message “*alone* would not trigger message delivery” and thus cannot be a message delivery trigger under the Petition’s own logic. *See* Pet. 23. Petitioner does not (and cannot) contend that a notification message is sufficient to trigger message delivery.

C. TS-23.140 does not disclose or render obvious claim 9’s requirement that “expiration of a periodic timer” is a “message delivery trigger.”

1. “Periodic polling” does not trigger message delivery.

The Petition and its expert originally alleged that “periodic polling” was carried out by an “MMS User Agent.” *See* Pet. 31 (“MMS User Agent uses ‘periodic polling’ to retrieve messages on/from an external server.”). As Patent Owner explained, this represented a fundamental misunderstanding / mischaracterization of TS-23.140’s disclosure. POR, 23-29. It is unclear how Dr. Traynor, a purported expert in the relevant field could have made such a misrepresentation (intentional or otherwise), but in any event Petitioner in Reply does not even attempt to defend this misrepresentation. *See* Reply at 15-17 (not alleging that the MMS User Agent engages in periodic polling, as originally alleged).

The Reply’s new theory relying on “periodic polling” *performed by the MMS Relay/Server* was not articulated in the Petition. *See* Pet. 30-31 (not alleging that the *MMS Relay/Server* uses “periodic polling” and only contending that “*MMS User Agent* uses ‘periodic polling’”). But even if Petitioner’s new Reply theory were somehow proper, it would not succeed because the Reply does not even attempt to explain how “periodic polling” performed by a MMS Relay/Server constitutes a “message delivery trigger.” And Petitioner could not do so, because a periodic polling message sent by an MMS Relay/Server is not sufficient to trigger message delivery), such that periodic polling “alone would not trigger message delivery.” *Cf.* Pet. 23.

Rather than a periodic polling message actually triggering message delivery to an end-user device, as Dr. Brogioli explained, the periodic polling would simply trigger the MMS/Relay Server's "*discovery* of incoming messages" (Ex. 2001, ¶74 (emphasis in original)) rather than the MMS/Relay Server's *delivery* of a message to an end-user device as the claim would require. In other words, the periodic polling would be a trigger for the MMS/Relay Server to *receive* a network element message from an External Messaging Server, not a trigger to *deliver* or *supply* the network element message to an end-user device as required by claim elements 1d3, 1d4, and claim 9.

2. Earliest desired time of delivery does not constitute a "periodic timer" and is also not a message delivery trigger.

As explained above, a "message delivery trigger" is a condition sufficient to trigger message delivery. Petitioner does not even *allege* that expiration of the earliest time of delivery is sufficient for message delivery. Rather, at most it would satisfy Petitioner's flawed interpretation of something that "must occur before message delivery is triggered." Reply 10; *see also* Pet. 23 (the Petition taking a directly inconsistent position with regard to the reception of a message).

Furthermore, an earliest desired time of delivery is not a “periodic timer.” Patent Owner believes that “periodic timer” should be interpreted according to its plain meaning of a timer that is “periodic,” like the TS-23.140’s disclosure of “periodic polling” which occurs at regular intervals. Even Petitioner’s *own extrinsic evidence* supports this understanding. For example, regarding Petitioner’s first dictionary citation (Ex. 1040), the very first definition of “periodic” is: “Occurring, appearing, or characterized by *regular and repetitive intervals or cycles*. For instance, AC, the chopping of a signal, or the oscillation of a crystal.” Ex. 1040. The Petition relies on the *second* definition of “periodic” which is: “Occurring, appearing, or characterized by irregular intervals. For example, the backing up of data occasionally.” *Id.* While a person may back up their data occasionally, in the context of timers, a POSITA would understand this to refer to *regular* intervals. Indeed, although Petitioner does not actually provide a definition for “periodic timer,” Petitioner’s own dictionary shows that for definitions where “periodic” modifies a noun (like “timer,” rather than a verb, such as backing up data), there is no discussion of irregularity, and the majority of such definitions refer to “regular and repetitive intervals or cycles.” *See* Ex. 1040 (definitions from “periodic antenna” to “periodic waveform” which do not mention any irregularity, and the vast majority of which explicitly recite “regular and repetitive” feature or “regular intervals”).

But even if Petitioner *were* correct that a “periodic timer” refers to a timer with *irregularly* recurring intervals, Petitioner does not explain how an “earliest desired time of delivery” constitutes even an *irregularly recurring* timer. Instead, an “earliest desired time of delivery” at most constitutes one independent timer per message which timer would never *recur* at all, but would simply expire at the end of the timer. The receipt of a new message would trigger a *separate* timer, and Petitioner does not explain numerous separate timers constitutes a timer that is recurring, periodically (i.e., regularly) or otherwise. For example, the MMS/Relay Server might receive 20 different messages over the course of an hour, each message indicating an “earliest desired time of delivery” of 24 hours after the message was received. There would thus be 20 *separate* timers, not a single, irregularly recurring timer as the Petitioner proposes “periodic timer” should mean. Petitioner presents no plausible explanation for how such a timer that is sent once and then expires could constitute *any* sort of “recurring” timer, such that it could even meet even Petitioner’s overbroad interpretation of “periodic timer.”

III. The Petition’s Grounds 5-8 fails to show unpatentability of any challenged claim.

As discussed in further detail below, the Petition’s Grounds 5-8 fail because they do not establish that the prior art discloses or renders obvious the requirements

of the independent claims 1 and 15, and additionally fail with regard to dependent claim 9.

A. Petitioner cannot show the obviousness of claims 1 and 15.

Petitioner's arguments regarding independent claims 1 and 15 fail for two independent reasons. First, the Petition failed to set forth a prima facie case of invalidity for limitations [1c2] and [15c2], and second, even if the Reply's improper new arguments were considered, they would not succeed.

1. The Petition did not show that Houghton discloses or renders obvious that messages received by the message link server provide an “identification of a respective one of the authorized software components” as recited by limitations [1c2]/[15c2].

As explained in Patent Owner's Response (and Petitioner does not dispute), the plain language of both claims 1 and 15 requires that *messages received by the message link server* provide “an identification of a respective one of the authorized software components.” POR 33-35; Ex. 2001, ¶¶87-88. The specific requirement of what “the received network element messages” include is set forth in the Petition's numbered limitations [1c2] / [15c2]. *See* Pet., pp. iii, v.

The Petition also failed to show that Houghton discloses or suggests this requirement. *See* POR 39-42. In particular, the **only** portion of the Petition’s analysis of limitations [1c2]/[15c2] that even arguably alleges that a POSITA would have understood Houghton disclosing that the plain meaning of the claim limitation is satisfied is the single conclusory sentence on page 70 of the Petition, alleging: “A POSITA would have **therefore understood** that Houghton discloses/suggests that the received network element messages (push messages from application server(s) 702/802) include message content with data for the destination mobile application and application identifier. SAMSUNG-1003, ¶¶333-334.” Pet. 70. However, all of the Petition’s preceding analysis of limitations [1c2]/[15c2] (i.e, the only analysis that could arguably supply the “therefore” in the Petition’s allegation at page 70) relates only to the contents of “[t]he message pushed **from push server 401/801 to push client 404/804**” and completely fails to address the contents of the message **received by** push client 404/804. *See* Pet. 69.

Furthermore, the Petition’s sole expert citation in support of the conclusory assertion on page 70 of the Petition is Ex. 1003, ¶¶333-334. But the sole substantive analysis cited in the expert declaration paragraphs in support of the Petition’s conclusory assertion relate to what “the message pushed **from push server 401/801 to push client 405/805** includes.” Ex. 1003, ¶333. Paragraph 334 of the expert

declaration **does** allege that “a POSITA would have understood that Houghton discloses or suggest[s] that the received network element messages (push messages from application server(s) 702/802) include... an identification of th[e] application,” but that is simply a paraphrasing of the **same** conclusory allegation offered by the Petition. Because this testimony does not provide any supporting reasoning for why the contents of a message *sent from* a push server to an end-user device could supposedly establish the contents of a message *received by* a push server from an application server, it should be given little, if any, weight. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper No. 9 at 15 (Aug 24, 2022) (precedential) (giving “little weight” to “cited declaration testimony [that] is conclusory and unsupported” and “adds little to the conclusory assertion for which it is offered to support”).

Petitioner does not even allege that Exhibit 1003’s paragraphs 330-334 (the only paragraphs even arguably alleged by either the Petition or Dr. Traynor’s original declaration to disclose the relevant aspect of limitations [1c2] / [15c2]) support a finding that messages **received by** the alleged “message link server” (i.e., Houghton’s push server) include an identification of the application. Instead, the Reply **newly** relies on paragraphs 87, 91, 319-329, and 339, 340, 341 of Exhibit 1003 as supporting the conclusory allegation of page 70 of the Petition. *See* Reply 18-21. However, because the **Petition** never alleged the relevance of these paragraphs to

the allegation that messages *received by* Houghton’s push server included the claimed identification of an application, the Reply’s new theory should be rejected. Consolidated Trial Practice Guide³ at 74 (“While replies and sur-replies can help crystalize issues for decision, a reply or sur-reply that raises a new issue or belatedly presents evidence may not be considered.”).

Furthermore, it is unsurprising that the Petition did not cite this evidence in support of the allegation that Houghton discloses or renders obvious that messages *received by* Houghton’s push server would include an identification of an authorized software component (which the Petition maps to a software application) as required by limitations [1c2]/[15c2], because none of that evidence actually supports that allegation. For example, paragraph 87 of Exhibit 1003 does not discuss any identification of an application. Ex. 1003, ¶87 (not mentioning an “ID” or “identification” or “identifier” at all). The same is true of paragraph 91. *Id.*, ¶91 (same). The same is true of paragraphs 319-329. *Id.*, ¶¶319-329 (same). The same is true of paragraphs 339-341. *Id.* ¶¶339-341 (same). Given that *none* of the Reply’s scattered citations to Exhibit 1003 was cited in support of the Petition’s allegation

³ Available at

<https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf?MURL=TrialPracticeGuideConsolidated>

that Houghton's push service *receives* message content that includes an identification of an application, and also that none that evidence even *discusses* an identification of an application, the Reply's attempt to rely on these newly-cited and scattered portions of Exhibit 1003 should be rejected as both improper and irrelevant.

Regarding the Reply's allegation that "it would have been obvious to include an application identifier in the push message sent by Houghton's application server for delivery to a mobile application" (Reply 21), the Reply does not cite to any portion of the Petition that even arguably sets forth this argument. *See* Reply 21-25 (not providing *any* citation to the Petition relevant to this argument). Indeed, the *only* obviousness theory presented in the Petition regarding limitations [1c2]/[15c2] is, to the extent those "limitation[s] require[] an application identifier for the application" (rather than merely "information specifying which mobile application... is the message recipient"), "a POSITA would have found obvious to implement Houghton's teaching of the 'information specifying' the mobile application as the application identifier." Pet. 69-71. The Petition never discusses or provides any reasoning even arguably supporting a modification to Houghton's teachings such that an application identifier (or any other "information specifying" a mobile application) would be included as part of a message *received from* the push server.

The Reply's attempt to provide a new theory entirely divorced from the Petition should be rejected. *See Consolidated Trial Practice Guide* at 74.

In short, the Reply does nothing to rebut Patent Owner's observation that the Petition "improperly focus[ed] on the content of messages *from* the push server to the push client rather than of messages from the application server *to* the push server." POR, 41-42. As such, the Reply cannot set forth a new theory in Reply, and the Board, should reject Petitioner's belated new Reply arguments.

As explained by Patent Owner's Response, the Petition's deficiency is further confirmed by the institution denial in IPR2024-00003. POR 41-42 (citing Ex. 2008 at 19 (explaining that Petitioner's allegations regarding what "messages pushed from push server 701 to push client 704" disclose is "not sufficient to satisfy" a "requirement that requests received from... application server 702" include). Again, the Reply does not point to any substantive discussion in the Petition showing that messages received *by* Houghton's push server *from* Houghton's application server would include an identification of an authorized software component, and this improper focus on messages sent *from* the push server instead of messages received *by* the push server is exactly the same problem that the Board in IPR2024-00003 correctly determined justified denial of institution.

The Reply's two attempts to distinguish IPR2024-00003 (Reply at 25-28) addressing the '117 Patent are irrelevant, both because the Petition's Ground 5 would fail independently of that institution denial **and** because the distinctions are not substantively meaningful. First, the Reply contends that the instant Petition provided a different claim mapping. *See* Reply 26-27. But the Reply does **not** dispute that the Petition (just like the petition in IPR2024-00003) improperly focused on what the messages **sent from** the push server include rather than what the messages **received by** the push server include. Reply 25-28. Petitioner simply cannot cure the Petition's failure to properly map claim elements for the first time in Reply, as the Petition plainly failed to set forth a *prima facie* case of invalidity. *See* Consolidated Trial Practice Guide at 74 ("Examples of indications that a new issue has been raised in a reply include new evidence necessary to make out a *prima facie* case for... unpatentability....").

Second, the Reply alleges that "the present petition leveraged evidence[] not relied upon in the '117 Petition." Reply at 27-28. But again, none of the evidence the Reply relies upon actually shows that it would have been obvious to modify Houghton such that push messages **received by** the push server would include information specifying an application. For example, while the Reply alleges that Exhibit 1003 at paragraph 336 relates to a "push message sent **from an application**

server” (Reply 27), that paragraph is explicit that it is discussing what the “push message *from a push server* includes.” Ex. 1003, ¶336.⁴ The remainder of the evidence cited by the Reply does not address the contents of messages *received by* Houghton’s push server (as opposed to the contents of messages *sent by* Houghton’s push server, which is the only issue the Petition addressed). *See generally* Reply 27-28 (citing Ex. 1003, ¶¶332-333, 320, 331-332, 339-340).

The Board has already found it to be insufficient for Petitioner to point to the contents of “command messages *pushed from* [Houghton’s] push server 701 to push client 704” in establishing what the contents of messages *received by* push server 701 include, and the same rationale applied here shows that the Petition failed to establish even a *prima facie* case of unpatentability. *See* Ex. 2007 at 19-20 (“[E]ven if Petitioner is correct that Houghton discloses that the command messages *pushed from* push server 701 to push client 704 include [information identifying an application], this is not sufficient to satisfy [the claim requirement] that request *received from* ‘network application servers’ (mapped to application server 702) include this information.”).

⁴ Notably, this paragraph also relates to what Lee and TS-23.140 (rather than Houghton) discuss. Ex. 1003, ¶336. Lee and TS-23.140 are *not* part of the Petition’s Ground 5 combination.

2. The Reply’s belated new theory fails, even if considered.

Given that the Petition does not even arguably justify such a modification to Houghton, the Reply alleges an entirely rationale—that “the application server is better equipped, relative to the push server, to provide the application identifier because the application server originates the message and knows the intended application to which the message is directed.” Reply 24. As noted above, this rationale is found nowhere in the Petition, and should be rejected for that reason alone. But the Petition’s assertion also ignores the expert testimony of Dr. Brogioli that there will be numerous examples where “the application server would not necessarily know which application the message should be directed to.” Ex. 2001, ¶98.

As explained by Dr. Brogioli, one example of such a scenario where the application server would not know which application the message should be directed to is a “Gmail server [which] may have email messages that could go to any number of client email applications, such as Gmail, Outlook, Apple Mail, etc.).” *Id.* In this scenario, “the application server would not necessarily know which application the message should be directed to. Instead, the application server would simply provide information that does **not** identify the receiving application (such as a user’s email

address, e.g., Director@uspto.gov), and the push server would determine *which specific* applications the message should be sent to.” *Id.* (emphases in original). Accordingly, the *push server* would “be in a better position than the application server to perform this determination, because the push server has the ability to directly communicate with each client device to determine, e.g., which mail applications are configured to receive push messages corresponding to a particular email address.” *Id.*

The Reply does not cite to, much less rebut, this testimony of Dr. Brogioli. For example, the Reply (or any other paper) does not even attempt to explain how an application server such as the Gmail server in Dr. Brogioli’s example would know which particular applications an outgoing email message should be sent to, or why it would make more sense for the application server to attempt to perform such a determination instead of the push server that is in direct communication with the end-user devices on which the email applications are installed. Because the Reply’s belated new obviousness theory does not even address Dr. Brogioli’s reasoning on this point, it should be rejected even if the Board were to consider that improper new argument.

B. The Petition’s Grounds 5-8 fail to establish obviousness of claim 9 for additional reasons.

1. The Reply’s alleged “Theory Based on Houghton” fails.

Patent Owner’s Response correctly noted that “the Petition does not allege that Houghton’s alleged ‘periodic message’ constitutes a ‘message delivery trigger’ either in Houghton or the proposed combination of Houghton with Munson.” POR 43. The Reply does not point to anything in the Petition that makes this allegation, much less explains *how* Houghton’s “periodic message” constitutes a “message delivery trigger.” *See* Reply 28-29. The only thing that the “periodic message” is alleged to do is to ensure that a connection is not time expired, not trigger message delivery. *Id.*; Pet. 82-83.

2. The Petition’s theory regarding scheduled pushing of content also fails.

The Reply improperly expands the Petition’s discussion of “content [which] can be pushed according to a schedule of time or event” (which does not discuss recurrence at all—*see* Pet. 82) into an allegation that a “POSITA would have found obvious that a scheduled time or event... is indeed a recurring event.” Reply at 30. But even if that belated new theory is considered and accepted, neither the Petition nor the Reply explain why this would involve a *timer* at all (as opposed to simply a human pushing the content according to a schedule), much less a *recurring* timer as

Petitioner's claim construction requires. *See* Reply at 29-30 (providing only conclusory allegations).

IV. Conclusion

For at least the foregoing reasons, Patent Owner respectfully requests that all challenged claims be found not unpatentable.

Date: January 23, 2025

Respectfully submitted,

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CERTIFICATION REGARDING WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Patent Owner certifies that there are 5,373 words in the paper excluding the portions exempted under 37 C.F.R. §42.24(c)(4).

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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 January 23, 2025, 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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