

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

ERICSSON AB,
Patent Owner.

IPR2025-00003
Patent 9,313,178 B2

Before GEORGIANNA W. BRADEN, NORMAN H. BEAMER, and
SCOTT RAEVSKY, *Administrative Patent Judges*.

BEAMER, *Administrative Patent Judge*.

PRELIMINARY GUIDANCE
PATENT OWNER'S MOTION TO AMEND
37 C.F.R. § 42.121(e)

I. INTRODUCTION

On March 27, 2025, we instituted trial as to claims 1–8, 10, 12, 14, and 16–20 (collectively, “the Challenged Claims”) of U.S. Patent No. 9,313,178 B2. Paper 14. After institution, Patent Owner filed a Motion to Amend that is contingent on the patentability of the challenged claims. Paper 24 (“Motion” or “Mot.”). Petitioner filed an opposition on September 5, 2025.

In the Motion, Patent Owner requested that we provide preliminary guidance concerning the Motion in accordance with 37 C.F.R. § 42.121(a)(1)(ii). Mot. 2; *see* 37 C.F.R. § 42.121(e)(1); *see also Rules Governing Motion to Amend Practice and Procedures in Trial Proceedings under the America Invents Act before the Patent Trial and Appeal Board*, 89 Fed. Reg. 76,421 (Sept. 18, 2024) (“Final Rule”). We have considered Patent Owner’s Motion and Petitioner’s Opposition.

In this Preliminary Guidance, we provide information indicating our initial, preliminary, non-binding views on whether Patent Owner has shown a reasonable likelihood that it has satisfied the statutory and regulatory requirements associated with filing a motion to amend in an *inter partes* review and whether Petitioner establishes a reasonable likelihood that the substitute claims are unpatentable. 37 C.F.R. §§ 42.121(e)(1), (2); *see also* 35 U.S.C. § 316(d) (statutory requirements for a motion to amend); 37 C.F.R. §§ 42.121(a)(2), (a)(3), (b) (regulatory requirements and burdens for a motion to amend); *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 (PTAB Feb. 25, 2019) (precedential) (providing information and guidance regarding motions to amend). The reasonable likelihood standard this Preliminary Guidance applies is different from the preponderance of the evidence standard applied when ultimately deciding the Motion. *Compare* 37 C.F.R. § 42.121(e)(1) *with* § 42.121(d). Finally, this preliminary guidance is

not a “decision” for purposes of rehearing under 37 C.F.R. § 42.71(d). 37 C.F.R. § 42.121(e)(2).

For purposes of this Preliminary Guidance, we focus on the proposed substitute claims, and specifically on the amendments proposed in the Motion. *See* 37 C.F.R. § 42.121(e)(1); Final Rule, 89 Fed. Reg. at 76,425. We do not address the patentability of the originally challenged claims. *See id.* Moreover, in formulating our preliminary views on the Motion and Opposition, we have not considered the parties’ other substantive papers on the underlying merits of Petitioner’s challenges. We emphasize that the views expressed in this Preliminary Guidance are subject to change upon consideration of the complete record, including any revision to the Motion filed by Patent Owner. Thus, this Preliminary Guidance is not binding on the Board when rendering a final written decision or any other subsequent decision in this proceeding. 37 C.F.R. § 42.121(e)(2); *see Medytox, Inc. v. Galderma S.A.*, 71 F.4th 990, 1000 (Fed. Cir. 2023).

II. PRELIMINARY GUIDANCE

A. Statutory and Regulatory Requirements

Patent Owner bears the ultimate burden to show that its motion to amend complies with the requirements of 35 U.S.C. §§ 316(d)(1) and (3), and 37 C.F.R. §§ 42.121(a)(2), (a)(3), (b)(1), and (b)(2). 37 C.F.R. § 42.121(d)(1). For the reasons discussed below, at this stage of the proceeding, and based on the current record, it appears that Patent Owner has not shown a reasonable likelihood that it has satisfied the statutory and regulatory requirements associated with filing a motion to amend. *See* 37 C.F.R. § 42.121(e)(1).

1. Reasonable Number of Substitute Claims

A motion to amend must propose a reasonable number of substitute claims. 35 U.S.C. § 316(d)(1)(B); 37 C.F.R. § 42.121(a)(3). Patent Owner has shown it

proposes a reasonable number of substitute claims because Patent Owner proposes one substitute claim for each challenged claim. Mot. 9, 15–20 (Claims Appendix). Petitioner does not argue otherwise. *See generally* Opp.

2. Respond to Ground of Unpatentability

A motion to amend must respond to a ground of unpatentability involved in the proceeding. 37 C.F.R. § 42.121(a)(2)(i). Patent Owner contends that the proposed amendments respond “to at least one ground of unpatentability in the trial,” and explains how the proposed amendments differ from the prior art. Mot. 6–8. Petitioner does not argue otherwise. *See generally* Opp. Patent Owner has responded to a ground of unpatentability involved in this proceeding by distinguishing the Petition’s asserted prior art.

3. Scope of Amended Claims

A motion to amend may not enlarge the scope of the claims of the patent. 35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii). Patent Owner contends the proposed substitute claims do not enlarge the scope of the original claims because “the proposed substitute claims retain all features of the corresponding original claims, and only add clarifying or narrowing limitations.” Mot. 2.

Petitioner contends Patent Owner’s proposed amendments improperly enlarge the scope of the ’178 patent’s claims by eliminating the claim limitation reciting that the second content encryption key be applied after reaching the rotation boundary. Opp. 2–5. Petitioner argues that this broadens the patented claims because a system that obtains a second content encryption key, applies that second content encryption key before the claimed content encryption key rotation boundary, and discards that second content encryption key at or before the boundary (i.e., does not apply it after the boundary) would meet the requirements

of the substitute claims, but would not meet the requirements of the original claim. *Id.* at 3 (citing Ex. 1041 ¶ 282).

On this record, having considered Petitioner’s arguments, Patent Owner’s proposed substitute claims 21 and 33 appear to broaden the scope of the claims of the ’178 patent. Patent Owner’s amendments to claims 21 and 33 recite “notification-based content encryption key rotation boundaries” and an “expiration time-based content encryption key rotation boundary.” Mot. 15–16, 18–19. Claim limitations [21.6] and [33.7] recite applying “the second key for content decryption before said expiration time-based key rotation boundary,” but allows for the second key for content decryption to be applied before or after the notification-based content encryption key rotation boundary. *Id.* If not applied after, it would not meet the requirements of the original claim.

4. New Matter

A motion to amend may not introduce new subject matter. 35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii). Patent Owner asserts that the proposed substitute claims are “supported by each earlier-filed disclosure as to which the benefit of the filing date is sought.” Mot. 9. Patent Owner explains that “the ’178 patent issued from Application No. 14/266,368 that was published as Patent Application Publ. No. 2014/0237243” (Ex. 2007, “the ’243 publication”) and “claims priority to U.S. provisional application Ser. No. 61/500,316, filed Jun. 23, 2011 (Ex. 2008[, ‘the ’316 application’]), and U.S. patent application Ser. No.: 13/530,997, filed on Jun. 22, 2012, which was published as U.S. Patent Application Publ. No[.] 2012/0331293 (Ex. 2009[, ‘the ’293 publication’]) and issued as U.S. Pat. No. 8,751,807.” *Id.* at 9–10. It is Patent Owner’s burden to establish that the proposed amendments do not introduce new matter. However, without any additional explanation, Patent Owner merely provides a table which

lists string cites of disclosures from the '243 publication, the '316 application, and the '293 publication that allegedly support each claim limitation of the proposed substitute claims. *Id.* at 10–12. We note that “[i]t is not the responsibility of the Board to search through the string citations to find sufficient written description support for each element.” *Intel Corp. v. Alacritech, Inc.*, IPR2017-01391, Paper 81, 44 (2018).

Petitioner contends Patent Owner’s proposed amendments in claim limitations [21.2], [21.5], and [21.6] improperly introduce new matter because they are not supported by the '243 publication. Opp. 5–8. We discuss each limitation below.

i. Limitation [21.2]

Proposed claim limitation [21.2] recites “parsing content information from the playback request response, the content information including content encryption keys, content encryption key identifiers that uniquely identify each content encryption key from every other content encryption key for the duration of the media playback, and content encryption key expiration times.” Mot. 15. Patent Owner represents that paragraphs 3, 5, 8, 10, 20, and 36, and claims 1 and 16 of the '243 publication support proposed claim limitation [21.2]. *Id.* at 10.

Petitioner contends proposed claim limitation [21.2] introduces new matter because the '243 publication’s sole description of “content encryption key identifiers” appears in paragraph 8, which states that “[e]ach content encryption key in the history is assigned a unique identifier which is referred to herein as the content encryption key identifier.” Opp. 7. Petitioner argues that, regardless of the meaning of “unique identifier,” the '243 publication “does not describe the duration for which the uniqueness of any ‘identifier’ must be maintained” such that persons of ordinary skill in the art would have “understood the ‘history’ described

in the specification could—for programs with ‘long or indefinite durations’ []—be shorter than the entire duration of media playback.” *Id.* at 7–8 (emphasis omitted, citing Ex. 1041 ¶¶ 311–13; Ex. 2007 ¶ 2).

On this record, having considered Petitioner’s arguments, Patent Owner’s proposed substitute claim limitation [21.2] does not appear to introduce new subject matter. The ’243 publication describes several examples in which it appears that content encryption key identifiers are unique for the entire duration of the media playback because the unique content encryption key identifiers are assigned sequentially. For example, the ’243 publication discloses embodiments in which the content encryption key identifiers are selected: (1) “based on the wall clock time offset from the beginning of the live stream” (Ex. 2007 ¶¶ 8, 10) or “from the time the initial content encryption key identifier was generated” (*id.* ¶ 20); (2) “based on a segment number of the prepared content” (*id.* ¶¶ 8, 10); (3) “based on a relative offset to the initial content encryption key identifier,” which is set to zero (*id.* ¶ 20); and (4) “based off a next sequential integer value, offset from the previous content encryption key identifier” (*id.*). In these examples, it appears that each time offset and each segment number is unique from the next and increases over the course of the live stream or over the course of assigning identifiers.

ii. Limitation [21.5]

Proposed claim limitation [21.5] recites

issuing requests to a license server in response to detecting said notification-based content encryption key rotation boundary ahead of the expiration time-based key rotation boundary previously provided for the content encryption key currently being used to retrieve a second content encryption key to be used before said expiration time-based content encryption key rotation boundary for the content encryption key currently being used is reached.

Mot. 16. Patent Owner represents that paragraphs 3, 5, 8, 9, 21, 26, 32, 35, 36, and 39, Figure 3, and claims 1, 12–16, and 20 of the '243 publication support proposed claim limitation [21.5]. *Id.* at 10.

Petitioner contends proposed claim limitation [21.5] introduces new matter because the paragraphs Patent Owner cites as supporting the proposed claim limitation do not describe “issuing requests for a second key to be used before any key rotation boundary,” and Patent Owner “offers no explanation for how such disclosures support the new limitation.” Opp. 7.

On this record, having considered Petitioner’s arguments, Patent Owner’s proposed substitute claim limitation [21.5] does not appear to introduce new subject matter because the '243 publication describes circumstances in which “a key change is signaled . . . outside of any fixed duration lifespan” for security reasons. Ex. 2007 ¶ 35. In such an example, the current content encryption key is expired early and “the client [] must issue a new content encryption key request to the license server [] to retrieve the new content encryption key, then replace the current content encryption key with the newly retrieved content encryption key.” *Id.* ¶ 36.

iii. Limitation [21.6]

Proposed claim limitation [21.6] recites “applying the second key for content decryption before said expiration time-based key rotation boundary for the content encryption key currently being used is reached.” Mot. 16. Patent Owner represents that paragraphs 5, 36, and 39, Figure 3, and claims 1 and 16 of the '243 publication support proposed claim limitation [21.6]. *Id.* at 10.

Petitioner contends proposed claim limitation [21.6] introduces new matter because the paragraphs Patent Owner cites as supporting the proposed claim limitation do not describe “applying a second key for decryption before any

rotation boundary.” Opp. 6 (emphasis omitted). More specifically, Petitioner argues that paragraph 5 of the ’243 publication “mimics original claim 1” by disclosing issuing requests to the license server ahead of a key rotation boundary to retrieve a second content encryption key, and applying the second key for content decryption after the key rotation boundary is reached. *Id.* Petitioner contends paragraphs 36 and 39 of the ’243 publication “generally describe (and Figure 3 illustrates) ‘two cases—normal period-based expiration, and an explicit key change notification,’” but “there is no description of applying a second key for decryption before any rotation boundary.” *Id.* (emphasis omitted).

Moreover, Petitioner argues that applying a second key for decryption before a rotation boundary would not make sense because the second key is applied for decryption after a rotation boundary in the “normal period-based expiration” case, and “replacement keys are requested independent of and, agnostic to, key rotation boundaries” in the “explicit key change notification” case. Opp. 6–7.

On this record, having considered Petitioner’s arguments, Patent Owner’s proposed substitute claim limitation [21.6] appears to introduce new subject matter. The ’243 publication describes circumstances in which “a key change is signaled . . . outside of any fixed duration lifespan” for security reasons (Ex. 2007 ¶ 35) such that the current content encryption key is expired early and “the client [] must issue a new content encryption key request to the license server [] to retrieve the new content encryption key, then replace the current content encryption key with the newly retrieved content encryption key” (*id.* ¶ 36). However, it appears that the ’243 publication does not provide support for the full scope of the claim limitation because the claim limitation allows for the second key for content decryption to be applied before or after the notification-based content encryption key rotation boundary, whereas the ’243 publication only describes the latter.

B. Unpatentability Arguments by Petitioner

Petitioner bears the ultimate burden to show that any proposed substitute claims are unpatentable. 37 C.F.R. § 42.121(d)(2). For the reasons discussed below, at this stage of the proceeding, and based on the current record,¹ it appears that Petitioner has shown a reasonable likelihood that proposed substitute claims 21–37 are unpatentable as obvious and indefinite. *See* 37 C.F.R. § 42.121(e)(1).

1. Obviousness over Peterka and Traw

Petitioner contends claims 21–26, 29, 30, 33–35, and 37 would have been obvious over Peterka² and Traw.³ Opp. 8–22. We focus our discussion on claims 21–23, 30, 33–35, and 37, which include limitations amended by Patent Owner’s Motion. For the reasons that follow, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claims 21–26, 29, 30, 33–35, and 37 are unpatentable as obvious.

Petitioner contends a person of ordinary skill in the art would have been motivated to combine Peterka and Traw because (1) the references are in the same field of art (Opp. 10 (citing Ex. 1005 ¶¶ 116–21, Fig. 14; Ex. 1041 ¶¶ 263–64; Ex. 1042 Abs., 1:65–2:2, 2:56–60, 3:13–19, 4:11–14)); (2) the references “share common objectives to prevent unauthorized access to content” (*id.* at 10–11 (citing Ex. 1005 ¶¶ 105, 110, 121, 135–46; Ex. 1041 ¶¶ 265–66; Ex. 1042, 2:15–19, 3:63–66)); and (3) persons of ordinary skill in the art would have understood “that

¹ We express no view on the patentability of original claims 1–20 in this Preliminary Guidance. Instead, we focus on limitations added to those claims in the Patent Owner’s Motion to Amend.

² Peterka, et al., US 2002/0172368 A1. Ex. 1005.

³ Traw, et al., US 7,392,381 B2. Ex. 1042.

notwithstanding Peterka’s described security mechanisms including key rotation, the security of systems like Peterka’s could be improved to address breaches” (*id.* at 11–12 (citing Ex. 1005 ¶ 110; Ex. 1040, 135:20–136:25, 139:7–140:24; Ex. 1041 ¶¶ 266–67; Ex. 1042, 6:39–57)).

Petitioner argues that a person of ordinary skill in the art would have been motivated to improve Peterka’s system (*see* EX1040, 135:20–136:5, 139:7–140:24; *see also id.*, 136:6–25) in view of Traw by: (1) providing a notification to clients that a certain key is compromised and requires early expiration (Traw, 5:63–65, 4:62–65) using Peterka’s content packet “signaling methods” for key changes (Pet., 11; Peterka, [0116]–[0120]); (2) having the client obtain a replacement key using Peterka’s “pull” method (Pet., 11–12; Peterka, [0105]–[0106]) when notified that the current key has been revoked before the originally-scheduled expiration of the compromised key (Traw, 6:18–21); and (3) having the client apply the replacement key for decryption when the replacement key is received, before the originally-scheduled expiration of the compromised key in order to minimize service interruptions (Peterka, [0105]). EX1041, ¶268.

Opp. 12. Petitioner contends persons of ordinary skill in the art would have had a reasonable expectation of success in combining Peterka and Traw “because Traw teaches a straightforward way to address security breaches easily adaptable to Peterka.” *Id.* (citing Ex. 1005 ¶¶ 105–6, 116–21, 135–38; Ex. 1041 ¶ 269).

Petitioner also contends persons of ordinary skill in the art would “have combined Traw with the original grounds set forth in the Petition (Grounds 2–5), for the same reasons” discussed above (Opp. 22 (citing *id.* § III.A.3; Ex. 1041 ¶ 308)), and “[t]he resulting combinations (Peterka-Suzuki⁴-Traw, Peterka-Bocharov⁵-Traw, Peterka-Suzuki-Bocharov-Traw, Peterka-Bocharov-Peterka⁶-

⁴ Suzuki, et al., 2004-166153. Ex. 1006.

⁵ Bocharov, et al., US 2010/0235528 A1. Ex. 1007.

⁶ Peterka, et al., US 2008/0270308 A1. Ex. 1008.

Chen⁷-Traw) meet substitute claims 21–26, 29–30, 33–35, and 37 for the same reasons discussed *supra* § III.4, and also meet substitute claims 27–28, 32, and 36 for the reasons discussed in Grounds 2–5” (*id.*).

i. Proposed Substitute Claim 21

Petitioner contends Peterka teaches proposed substitute claim limitations [21.P], [21.1], and [21.3] for the reasons set forth in Ground 1 of the Petition. Opp. 13 (citing Pet. 3, 19–37, 57; Ex. 1003 ¶ 178; Ex. 1005 ¶¶ 15, 38, Fig. 1; Ex. 1041 ¶¶ 270–89). We address amended limitations [21.2], [21.4], [21.5], and [21.6] below.

a. Limitation [21.2]

Petitioner contends Peterka teaches claim limitation [21.2] by describing delivering a sequence number or timestamp to a client along with a content encryption key in an Entitlement Management Message (EMM) or Entitlement Control Message (ECM). Opp. 13–15. Petitioner contends a person of ordinary skill in the art would have understood that each sequence number or timestamp “constitutes a unique [content encryption key] identifier that can be used to identify the key in the ECM/EMM” because “Peterka’s ‘sequence number’ or ‘timestamp’ is specifically included ‘to protect against replay attacks’ during media playback.” *Id.* at 13–14 (emphasis omitted, citing Pet. 25–26; Ex. 1005 ¶ 121; Ex. 1003 ¶¶ 91–92; Ex. 1041 ¶ 274). Petitioner argues further that Peterka’s Figure 7B illustrates content key (CK) identifiers, CK₀, CK₁, and CK₂, that are unique for the entire program’s duration. *Id.* at 15 (citing Ex. 1005 ¶ 92, Figs. 7A, 7B; Ex. 1041 ¶ 276). According to Petitioner, a person of ordinary skill in the art would have had a reasonable expectation of success “using identifiers sufficiently

⁷ Chen, et al., EP 1 418 756 A2. Ex. 1009.

unique to distinguish between CKs over the duration of media playback given Peterka’s teachings [] and because it was common to use key IDs sufficiently unique to allow clients to keep track of keys required to playback a piece of content.” *Id.* at 15 (citing Ex. 1005 ¶ 92, Figs. 7A, 7B; Ex. 1041 ¶ 77; Ex. 1012, 12:4–35, Fig. 4).

Petitioner also argues that “ensuring uniqueness of key identifiers ‘for the duration of the media playback’ would have been obvious” and a person of ordinary skill in the art “would have been motivated (and reasonably expect success) to ensure a client could uniquely identify keys even in scenarios where the client ultimately acquired all the keys needed for the entire duration of media playback.” Opp. 14 (citing Ex. 1003 ¶¶ 94–96; Ex. 1041 ¶¶ 275–76; Ex. 2011, 39:7–40:13; Pet. 25–26).

b. Limitation [21.4]

Petitioner contends Traw teaches claim limitation [21.4] by describing “revoking a key that has been compromised due to a security breach before that key would ordinarily be rotated [] and notifying client devices of such revocations.” Opp. 16 (emphasis omitted, citing Ex. 1042, 3:17–19, 4:62–65, 5:35–39, 5:63–65, 6:12–21, 6:39–57; Ex. 1041 ¶ 280). Petitioner argues that in the combination of Peterka and Traw, “notifications of these unscheduled key revocations are transmitted to (and detected by) the client using Peterka’s key change signaling methods” such that “Peterka-Traw’s client thus detects notification-based content encryption key rotation boundaries where the notification requires early expiration of the current content encryption key.” *Id.* (citing Ex. 1005 ¶¶ 116–20; Ex. 1041 ¶ 281).

c. Limitation [21.5]

Petitioner contends Peterka teaches claim limitation [21.5]. Opp. 16–17. According to Petitioner, Peterka teaches that “the client keeps track of its keys and issues requests for new keys in a manner that avoids ‘service interruptions.’” *Id.* at 17 (citing Ex. 1005 ¶ 105). Petitioner argues that a person of ordinary skill in the art would have been motivated to “implement Peterka-Traw such that when the client detects an unscheduled key revocation taught by Traw [] using Peterka’s key change signaling methods[], Peterka-Traw’s client requests a new key immediately, before the current (compromised key) is set to expire” to “minimize the impact of service interruption.” *Id.* (citing Ex. 1005 ¶¶ 105, 116–20; Ex. 1041 ¶¶ 283–86; Ex. 1042, 3:17–19, 4:63–65, 5:35–39, 5:63–65, 6:12–21, 6:39–57).

d. Limitation [21.6]

Petitioner contends Peterka teaches claim limitation [21.6]. Opp. 17–18. Petitioner argues that a person of ordinary skill in the art “would have been motivated to implement Peterka-Traw such that when the client receives the second (replacement) key due to Traw’s unscheduled key revocation [], the client promptly applies the second key for decryption, before the current key is set to expire, allowing the client to resume consuming content” in order to minimize “service interruptions.” *Id.* (citing Ex. 1003 ¶ 124; Ex. 1005 ¶¶ 105–6, 116; Ex. 1042, 3:17–19, 4:63–65, 5:35–39, 5:63–65, 6:12–21, 6:39–57).

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that the combination of Peterka and Traw renders obvious proposed substitute claim 21. We note that Patent Owner has not yet had an opportunity to respond to Petitioner’s contentions.

ii. Proposed Substitute Claim 22

Petitioner contends it would have been obvious to try setting the expiration time for the second content encryption key as “equal to the time remaining for the expiration previously set for the prior content encryption key” as recited in claim 22 because a person of ordinary skill in the art “would have understood that there were three options for setting the expiration time of a replacement key: (1) before the expiration of the original key; (2) at the same time as the original key expiration; or (3) after the expiration of the original key.” Opp. 18 (emphasis omitted, citing Ex. 1041 ¶¶ 292–93).

Petitioner contends further that a person of ordinary skill in the art would have tried setting the second content encryption key’s expiration time to be equal to the time remaining for the expiration set for the prior content encryption key because the expiration time of the prior content encryption key “was already known to both the client and server” such that setting the expiration time for the second content encryption key as equal to the time remaining for the prior content encryption key “would minimize the need to adjust any existing time variables associated with the upcoming key rotation.” Opp. 18 (citing Ex. 1041 ¶ 294). Petitioner argues that adjusting the second content encryption key’s expiration time so that it was not the same time as the prior content encryption key “would have required changing already-staged key rotation boundaries that are tied to future media segments, including interstitial segments like ads, previews, etc. that were common in multicast content distribution.” *Id.* at 18–19 (citing Ex. 1005 ¶ 122, Fig. 7B; Ex. 1041 ¶ 295).

Petitioner argues that a person of ordinary skill in the art would have had a reasonable expectation of success revoking a single key and replacing it because

Traw teaches “that its revocation can target a single key.” Opp. 19 (citing Ex. 1041 ¶ 296; Ex. 1042, 3:35, 4:45).

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that the combination of Peterka and Traw renders obvious proposed substitute claim 22. We note that Patent Owner has not yet had an opportunity to respond to Petitioner’s contentions.

iii. Proposed Substitute Claim 23

Petitioner contends it would have been obvious to try setting the expiration time for the second content encryption key as “equal to the time remaining for the expiration previously set for the prior content encryption key plus the fixed expiration period duration originally assigned for the prior content encryption key” as recited in claim 23 because a person of ordinary skill in the art would have understood that there were three options for setting the expiration time of a replacement key as discussed above. Opp. 19. According to Petitioner, a person of ordinary skill in the art would have understood that setting the second content encryption key to be applied before the prior key expires and expire after the prior content encryption key would have expired would mean that the content encryption key “originally staged to be applied to the next media segment—possibly already distributed to some clients—was no longer usable for the upcoming segment.” *Id.* at 19–20 (emphasis and footnotes omitted, citing Ex. 1041 ¶ 300).

Petitioner argues that a person of ordinary skill in the art would have set the expiration of the second content encryption key in the manner recited in claim 23 to “provide Peterka-Traw’s servers an additional key rotation period to better handle potential latency issues that would predictably arise from numerous clients attempting to replace the compromised key and the now-defunct key that was originally staged” and to “avoid disrupting the encryption/decryption of future

media segments” by avoiding “adjusting already-staged key rotation boundaries.” Opp. 20 (emphasis omitted, citing Ex. 1005 ¶¶ 80, 122, Fig. 7B; Ex. 1041 ¶ 300). Petitioner contends a person of ordinary skill in the art would have had a reasonable expectation of success “because it involves using less than two key rotation periods to give servers the chance to resume regular key distribution processes.” *Id.* (citing Ex. 1041 ¶ 301).

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that the combination of Peterka and Traw renders obvious proposed substitute claim 23. We note that Patent Owner has not yet had an opportunity to respond to Petitioner’s contentions.

iv. Proposed Substitute Claim 30

Petitioner contends “[c]laim 30’s unchanged limitations are obvious for the same reasons set forth in Ground 1.” Opp. 21 (citing Pet. 48). Petitioner argues that the amended limitations of claim 30 are obvious over Peterka and Traw because Peterka teaches “content divided into segments encrypted (and decrypted) with a different key” and “revoking and requiring replacement of a compromised key before its set expiration” to respond to security attacks. *Id.* (citing Pet. 10, 36–37; Ex. 1005 ¶¶ 80–82, 91–101, 106, 116, 121–25, Figs. 7A, 7B). Petitioner argues further that Traw teaches that the second content encryption key is used to decrypt content originally slated to be decrypted by the prior content encryption key, and the early expiration of the prior content encryption key is for security reasons. *Id.* at 20–21 (citing Ex. 1042, 1:65–2:2, 2:15–19, 3:65–66, 4:37–39, 5:5–39, Fig. 2; Ex. 1041 ¶¶ 305–6).

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that the combination of Peterka and

Traw renders obvious proposed substitute claim 30. We note that Patent Owner has not yet had an opportunity to respond to Petitioner's contentions.

v. Proposed Substitute Claims 24–26, 29, 33–35 and 37

Petitioner argues that the combination of Peterka and Traw teaches claims 24–26 and 29 (which are not amended) for the same reasons that Peterka satisfies claims 4–6 and 10. Opp. 21 (citing Pet. 41–47; Ex. 1041 ¶ 302).

Petitioner contends “Peterka-Traw’s computerized device satisfies substitute claims 33–35 and 37 for the same reasons described above for proposed substitute claims 21–23 and 30” because “Substitute claim 33 amends original claim 16 the same way substitute claim 21 amends claim 1.” Opp. 22 (citing Ex. 1041 ¶ 307; Mot. 18–19).

For the same reasons discussed above, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claims 24–26, 29, 33–35 and 37 are unpatentable as obvious over Peterka and Traw.

2. Indefiniteness

Petitioner contends proposed substitute claims 21–37 are unpatentable as indefinite. Opp. 22–24. For the reasons that follow, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claims 21–37 are unpatentable as indefinite.

- i. “the expiration time-based key rotation boundary previously provided” (Limitations [21.5] and [33.7])

Petitioner argues that proposed substitute claims 21–37 are indefinite because “limitations [21.5] and [33.7] lack proper antecedent basis for the phrase ‘the expiration time-based key rotation boundary previously provided’ because the claims never introduce any such concept before [21.5] and [33.7].” Opp. 23.

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that the proposed substitute claims are indefinite. We note that Patent Owner has not yet had an opportunity to respond to Petitioner's contentions.

- ii. “for the duration of the media playback” (Limitations [21.2] and [33.3])

Petitioner argues that proposed substitute claims 21–37 are indefinite because limitations [21.2] and [33.3] lack proper antecedent basis for the phrase “from every other content encryption key for the duration of the media playback.” Opp. 23.

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that the proposed substitute claims are indefinite. It appears to be unclear whether “the duration of the media playback” means for the entire duration of the media playback, or just a portion of the duration of the media playback. We note that Patent Owner has not yet had an opportunity to respond to Petitioner's contentions.

- iii. “second content key” in relation to “expiration times”

Petitioner argues that proposed substitute claims 22–26 and 33–37 are indefinite because “the content key expiration time for said second content encryption key” lacks antecedent basis. Opp. 23–24.

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claims 22–26 and 33–37 are indefinite. We note that Patent Owner has not yet had an opportunity to respond to Petitioner's contentions.

3. Unpatentable Subject Matter

Petitioner contends proposed substitute claims 21–37 are unpatentable under 35 U.S.C. § 101. Opp. 24–25.

Petitioner argues the proposed substitute claims “fail Step 2A, Prong One because they are directed to the abstract idea of using [content encryption keys] to encrypt and decrypt information (media content segments) using a general-purpose computer as ‘merely . . . a tool.’” Opp. 25 (citing *Int’l Bus. Machines Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1377 (Fed. Cir. 2022)). Moreover, Petitioner argues that “[t]he claims recite purely functional claim elements not tied to any improvement in computer architecture or functionality. Such ‘result-based functional language’ as to ‘abstract data manipulation’ fails.” *Id.* (citing *Hawk Tech. Sys., LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1357 (Fed. Cir. 2023)).

Petitioner argues the proposed substitute claims “fail Step 2A, Prong Two as they do not recite any additional elements that integrate the judicial exception into a practical application. Instead, the substitute claims merely recite the use of generic, conventional computer technology.” Opp. 25 (citing *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014)). Petitioner, however, provides no substantive analysis to support its position.

Accordingly, based on the current record, it appears that Petitioner has not shown a reasonable likelihood that the proposed substitute claims are directed to an abstract idea and thus, have not shown that the proposed substitute claims are unpatentable under 35 U.S.C. § 101. We note that Patent Owner has not yet had an opportunity to respond to Petitioner’s contentions.

III.CONCLUSION

This concludes our Preliminary Guidance. Patent Owner has the option to reply to this Preliminary Guidance *or* to file a revised MTA by DUE DATE 3.

37 C.F.R. §§ 42.121(e)(3), (f); Paper 15. Patent Owner's reply or revised MTA may only respond to this Preliminary Guidance or Petitioner's Opposition and may be accompanied by new evidence (including declarations). 37 C.F.R.

§ 42.121(e)(3). Petitioner has the option to file a sur-reply responsive to this Preliminary Guidance, Patent Owner's reply, or Patent Owner's revised MTA but may not present new evidence in any case. 37 C.F.R. § 42.121(e)(3). Petitioner may also file a reply to the preliminary guidance in the case Patent Owner does not file a reply or revised MTA. 37 C.F.R. § 42.121(e)(4).

In addition, Patent Owner is reminded that amendments of the challenged claims may also be pursued in a separate reissue or reexamination proceeding before, during, or after an AIA trial proceeding, including subsequent to the issuance of the Final Written Decision. We draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. §§ 42.8(a)(3), (b)(2).

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