

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

CARBYNE BIOMETRICS, LLC,
Patent Owner

IPR2024-00332
U.S. Patent 10,929,512

AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST

I. INTRODUCTION

Dissatisfied with the Board's thorough analysis and its reasoned determination that a POSITA would have combined teachings of Cheng and Challenger with Kesanupalli, Patent Owner requests Director Review ("Request," Paper 27) of the Final Written Decision (FWD, Paper 26). Patent Owner alleges (i) that its reliance on a prior denial of institution was "disrupted," (ii) that the Board "erred" by "fail[ing] to properly weigh" its motivation to combine evidence, and (iii) further erred in finding that the Kesanupalli-Challenger-Cheng combination teaches a "second processor configured to perform a secure backup." Request, 1, 6-15. But Patent Owner's arguments mischaracterize the Board's analysis, are untimely as to institution issues, and are contrary to the FWD. The so-called "disruption" and "errors" are merely disagreements with the Board's decision to institute trial and with its factual findings in the FWD.

II. NO REVIEWABLE ERROR IS DEMONSTRATED

Requests for Director review of a final written decision are limited to: (a) abuse of discretion; (b) important issues of law or policy; (c) erroneous findings of material fact; and (d) erroneous conclusions of law. The Request does not credibly raise any such abuse, issue, or error. Accordingly, the Request should be denied.

III. ARGUMENT

A. Patent Owner's attempt to invoke a settled expectation of validity based on a prior decision of the Board not to institute trial on different grounds raised by an unrelated challenger is neither timely, nor credible, nor relevant.

In this proceeding and after a full trial, the Board found that all challenged claims were unpatentable over the combination of Kesanupalli, Challenger and Cheng advanced by Petitioner. FWD, 2, 62-69. A prior and unrelated petitioner raised different grounds and was denied institution. *Samsung v. RightQuestion*, LLC, IPR2022-00251, Paper 17 at 2, 10 (P.T.A.B. 2022) (“Samsung IPR”) (“constrained by the record before us, we deny institution”). Contrary to Patent Owner's arguments, the Board never “affirmed the novelty of the '512 Patent” (*but cf.* Request, 2) and there is no “conflict[] with the PTAB's prior denial of institution in the Samsung IPR” (*but cf.* Request, 7-8). Rather, Patent Owner's so-called “disrupt[ion],” “depriv[al]” or “prejudicial” effect is premised on a “reliance” interest (Request, 6-8) that is not only an untimely argument but also lacks basis in law or fact. Patent Owner's request to vacate the FWD based on its newly settled expectations should be denied.

1. Patent Owner's untimely and legally erroneous attempt to relitigate the Board's institution decision should be rejected.

Patent Owner's post-FWD discretionary denial-type arguments are untimely and have no legal basis. The Board declined to exercise discretion in its institution decision, and Patent Owner waived the arguments now presented in the Request by

not timely requesting rehearing.¹ Decision on Institution, Paper 10 at 16 (instituting trial July 16, 2024) (“DI”); 37 CFR § 42.71(d) (“request [for rehearing] must be filed...[w]ithin 14 days of the entry of ... a decision to institute a trial.”). Patent Owner’s request to vacate the FWD should be denied as untimely.

Moreover, there is no legal basis to revisit institution at this stage. The Director had an opportunity to review the Board’s institution decision *sua sponte*, but did not do so within the time frame provided by regulation. See <https://www.uspto.gov/patents/ptab/decisions/director-review-process#RIDRP> (permitting *sua sponte* review within 21 days after expiration of the period for rehearing under 37 C.F.R. § 42.71(d)) (now codified in relevant part at 37 C.F.R. § 42.75(b)). And the statutory deadline for an institution decision has long since passed. 35 U.S.C. § 314(b). At this late stage, outside of narrow exceptions not applicable here (e.g., settlement under 35 U.S.C. § 317(a)), the Director lacks authority to revisit the question of institution, as the statute requires that the Board “*shall* issue a final written decision” once an IPR is instituted. 35 U.S.C. § 318(a).

¹ On July 24, 2023, the Office modified its interim Director Review process to allow parties to request Director Review of all decisions on institution under 35 U.S.C. 135, 314, or 324 in AIA proceedings. See 89 FR 79744, 79747.

2. Neither Challenger nor Cheng were previously before the Board, and Samsung IPR art is not “materially identical” to that on which the FWD relied.

Additionally, even if Patent Owner's argument is considered on its merits, Patent Owner's theory that the Samsung IPR art was “materially identical” to the prior art or arguments presented in this proceeding was thoroughly analyzed—and found to be baseless—by the Board. DI at 12-16 (declining to exercise discretion under the first prong of the *Advanced Bionics* framework).

The Samsung IPR raised two challenges: (1) Johansson in view of U.S. 2011/0138450 (“Kesanupalli 450”) and (2) Shah in view of Owen. *RightQuestion*, Paper 17 at 10, 15-40. Neither Challenger nor Cheng were part of any challenge before the Board in the Samsung IPR. *See* DI at 15 (citing *RightQuestion*, Paper 17 at 10). Both (i) Patent Owner's suggestion that the Samsung prior art is “materially identical” to that relied upon here by the Board and (ii) its insinuation that similar grounds or arguments were denied in the Samsung IPR is false and was already rejected by the Board. *See* DI at 14-16 (distinguishing the art and arguments presented here from those presented in the Samsung IPR).

Specifically, the Board, in analyzing § 325(d) issues briefed by the parties in this proceeding, explained that the Samsung IPR had failed to sufficiently explain how “[Kesanupalli's use of an] SSL ... protocol (alone or in combination with Johansson) discloses or teaches the claimed ‘restricted interface.’” DI at 15 (citing

RightQuestion, Paper 17 at 25). In contrast, the Board noted that, “[i]n this case, Petitioner[] relies on Challenger, not Kesanupalli for disclosure of a restricted interface ...” and “[t]he denial of institution on the Johansson/Kesanupalli 450 ground in the [Samsung] IPR is, thus, of little import here.” DI at 15.

Likewise, while acknowledging Patent Owner’s argument that “Shah describes a Trusted Platform Module (TPM),” the Board explained “[i]n the [Samsung] IPR, the Board denied institution ... because it determined that neither Shah nor Owen nor the combination [thereof] taught the recited secure storage.” DI at 16 (citing *RightQuestion*, Paper 17 at 40). As the Board recognized, a determination for the Shah-Owen ground in the Samsung IPR “is, thus, of little import here because Petitioner relies on Cheng for the secure backup.” DI at 16.

Here the Board determined that, relative to the questions that ultimately doomed each of the Samsung IPR grounds—namely, failures to make a Johansson-Kesanupalli-based reasonable likelihood showing of a “restricted interface” or a Shah-Owen-based reasonable likelihood showing of “secure backup”—Petitioner’s actual art and arguments in *this* proceeding and FWD rely on Challenger and Cheng. DI at 14-16. Accordingly, Patent Owner’s revisionist history lacks candor where it alleges that the art relied upon by the Board in the FWD is “materially identical” (Request at 2, 7-8) to, or “largely indistinguishable from” (Request at 3), that addressed in the Samsung IPR.

Moreover, Patent Owner's insinuation that the PTAB previously considered Kesanupalli in combination with TPM teachings is false. *See* Request at 7 (alleging that "[i]n 2022, the Board denied institution in the Samsung IPR after determining that the same core references—Kesanupalli and a TPM reference—did not disclose the two-processor architecture or secure backup functionality of the '512 Patent"). No combination of any Kesanupalli reference with TPM teachings was before the Board in the Samsung IPR. Instead, the Samsung IPR's Johansson-Kesanupalli ground (no TPM teaching) was found to lack credible teaching of a "restricted interface" and its Shah-Owen ground (not Kesanupalli or cumulative thereto) was found to lack credible teaching of a "secure backup." *RightQuestion*, Paper 17, 23-26 ("constrained by the Petition, we are not persuaded that the cited evidence adequately supports Petitioner's contention that Johansson, Kesanupalli, or the combination thereof teaches a 'restricted interface' between processors."), 36-40 ("we are not persuaded that the cited evidence adequately supports Petitioner's contention that Shah, Owen, or the combination thereof teaches a 'secure backup.'"); *accord* DI at 12-16 (declining to exercise discretion under § 325(d)).

In short, the Board's § 325(d) determination at institution was and remains sound. Patent Owner's request to vacate is an untimely attempt (*see supra* III.A.1) to revisit that institution-stage decision on Director Review of the FWD based on a

mischaracterization of both the art and analysis of the Samsung IPR. Patent

Owner's request should be denied as baseless and untimely.

3. Failure of the Samsung IPR is not relevant here.

Patent Owner alleges that the FWD here is “at odds with the Samsung IPR decision” (Request, 3) “undercut[s the Board’s] previous denial of institution” (Request, 6-7) and “conflicts with the PTAB’s prior denial of institution” (Request, 7). Patent Owner is incorrect. As demonstrated above, it is Patent Owner’s rhetoric that is inconsistent with the actual reasoning of the FWD (and the grounds found persuasive thereby) and, indeed, with record of the prior Samsung IPR itself. *See supra* III.A.2. The PTAB’s determinations in the Samsung IPR are neither in conflict with the FWD, nor relevant to it. As the Board itself stated while noting the substantive differences in the grounds presented, the failure of the Samsung IPR “is of little import here.” DI at 15.

Accordingly, the Board’s FWD does not constitute an “abrupt reversal” or “departure from the Samsung [IPR] decision” requiring acknowledgement or explanation. (*cf.* Request, 7). Instead, the FWD addressed the disputed issues before the Board *in this proceeding*—namely whether (i) POSITA would have been motivated to combine Kesanupalli, Challener and Cheng and would have had a reasonable expectation of success and (ii) whether the Kesanupalli-Challener-Cheng combination teaches a “second processor configured to ... perform a secure backup

... to a storage service.” FWD at 21-37 (finding motivation to combine and reasonable expectation of success), 48-60 (analyzing Petitioner’s evidence and explanations for limitation [1.7A] in light of Patent Owner’s arguments and evidence). Neither of the issues disputed *in this proceeding* were relevant to anything considered, much less decided, in the Samsung IPR—rather, the issues in this proceeding centered on the additional teachings of Challenger and Cheng. FWD at 42-43 (“Patent Owner does not address Petitioner’s contentions for [the restricted interface] limitation.”); *see* DI at 15 (“Neither Challenger nor Cheng were part of any challenge before the Board in the [Samsung] IPR.”).

The Board’s FWD carefully and completely considered the disputed issues before it. None of those issues, and no findings made by the Board here, are at odds or in conflict with, undercut, reverse or depart from any material determination of the PTAB in the Samsung IPR. Instead, Patent Owner’s request to vacate imagines conflict where there is none. Patent Owner’s request should be denied for this reason as well.

B. The Board did not err in its consideration of the prior art.

Patent Owner next argues that the FWD “failed to properly weigh the evidence submitted by [Patent Owner]” because the Board “ignored [its] evidence and focused on Petitioner’s assertions.” Request, 9, 11. But Patent Owner does not identify any of its arguments or evidence absent from the Board’s analysis. Quite to the contrary,

the Board thoroughly considered and addressed² each of PO's arguments—but found them to be unpersuasive.

As best understood based on the Request, Patent Owner now argues that two of its theories were not sufficiently appreciated by the Board, namely its arguments:

- that the “primary objective” of Kesanupalli (the reference) was “thwarting social engineering attacks,” and “Challenger’s TPM would not have furthered” that supposed objective or goal (Request, 10-11); and
- that Ramesh Kesanupalli (the person) “demonstrate[d] a conscious decision” not to describe “hardware-based features” such as a TPM in Kesanupalli (the reference), and as such, provided “definitive evidence of non-obviousness” (Request, 10-11).

However, each of Patent Owner's arguments was recognized and thoroughly addressed by the Board. Specifically, the Board addressed “Patent Owner's assertion that Kesanupalli is limited to addressing social engineering attacks,” noting that “Kesanupalli reveals an interest and concern in areas outside of thwarting social

² Patent Owner raised arguments in the context of motivation to combine

Kesanupalli and Challenger, which are addressed at FWD, at 20, 24-26, 28-34, and with respect to reasonable expectation of success, which are addressed at FWD, at 35-37.

engineering attacks.” FWD, 29-32 (highlighting risks of exposing usernames and passwords for “Web-based accounts,” identifying “Man in the Browser” attacks, and noting both “encrypt[ion] of user credentials and stor[age of] the encrypted credentials in a secure storage” in Kesanupalli’s disclosure). Moreover, in reaching its conclusion that Patent Owner’s arguments were unpersuasive, the Board extensively credited the expert testimony of Dr. McDaniel “as it is based on the disclosure of Kesanupalli when considered in its entirety.” FWD, 30-32.

Regarding “Patent Owner’s reliance on what Mr. Ramesh Kesanupalli, the individual, allegedly chose not to include in the disclosure of the Kesanupalli patent reference,” the Board found Patent Owner’s argument inconsistent with case law. FWD, 28-29 (agreeing that “the subjective decisions of Mr. Ramesh Kesanupalli, even if demonstrated unambiguously..., were not a stand-in for the legal construct of a POSITA,” but also concluding that Patent Owner’s argument failed because there was “no record evidence why Mr. Kesanupalli and/or the other co-inventors of the Kesanupalli reference chose not to include a discussion of a TPM or other security issues in their patent application.”).

Thus, the Board expressly considered and rejected both of the arguments that Patent Owner alleges the Board ignored. Accordingly, the Request does not credibly raise any material error and should be denied.

C. The Board did not err in its finding that the prior art taught a second processor configured to perform a secure backup.

Finally, Patent Owner reprises in the Request its failed argument at trial that the Kesanupalli-Challener-Cheng combination does not disclose a second processor capable of performing a secure backup to a storage service. Request, 13-15. According to Patent Owner, “the so-called ‘second processor’ ... is intentionally isolated from the rest of the system,” is “designed to communicate only with the general-purpose processor (the ‘first processor’) ... and is not connected to any external storage service or cloud.” Request, 14 (citing PO Resp. at 33-34). As a result, at least according to Patent Owner, “any operation that involves sending data to an external storage service, such as a secure backup, would necessarily be performed by the general processor, not the secure processor”—that is, by the first processor, not the second. Request, 14.

However, Patent Owner’s argument was acknowledged and considered, nearly verbatim, but rejected by the Board. *See* FWD, 58:

Patent Owner’s argument that in Petitioner’s proposed combination of Kesanupalli-Challener “[t]he TPM/Sensor is isolated and is not connected to any external storage service—the only thing it can do is communicate with the ‘general’ processor, which would then be the processor ‘performing’ any secure backup ‘to a storage service’” (PO Resp. 33) is a strawman argument. **Petitioner provides evidence and**

argument, which we find persuasive and which Patent Owner does not dispute, that an ordinarily skilled artisan would have been motivated to modify Kesanupalli-Challener **with Cheng** so that the second processor is configured to perform the secure backup. Pet. 54–55. Petitioner's contentions and Dr. McDaniel's testimony are not limited to requiring the second processor to communicate the secure backup of a record to the “general processor” as Patent Owner posits. (internal citations in original, emphasis added).

The Board's FWD further explains why it was so persuaded. FWD, 54-58 (detailing the undisputed teachings of Cheng and extensively discussing Dr. McDaniel's expert testimony, which it “credits ... because it is supported by the cited evidence from Kesanupalli, Challener, Cheng, Exhibit 1017, and Exhibit 1018”). Moreover, the Board explains that even the Patent Owner's general processor strawman fails to present actual conflict with the '512 Patent. FWD, 58-59 (addressing “the disclosure of the '512 Patent” and “Patent Owner[']s concealment at oral argument”). The Request should be denied because substantial evidence supports the FWD.

Finally, Patent Owner's Request insinuates a claim construction issue. Request, 14-15 (advancing still another strawman—“facilitating” vs. “performing”). Patent Owner's strawman argument was fully considered and addressed in the FWD.

As the Board directly stated, “we need not address Patent Owner’s argument that there is a claimed distinction between ‘performing’ a backup as opposed to ‘initiating’ a backup because we determine that Petitioner shows that the second processor is configured to ‘perform’ that secure backup under Patent Owner’s construction.” FWD, 59.

At bottom, the Board expressly considered and thoroughly analyzed Patent Owner’s arguments and evidence, but nonetheless concluded that Petitioner’s evidence and explanations persuasively established that the Kesanupalli-Challener-Cheng combination teaches a second processor configured to perform a secure backup. The Request does not credibly raise any material error, and it should be denied.

I. CONCLUSION

The Request does not establish any abuse of discretion or erroneous findings of material fact or conclusions of law. Instead, it merely airs disagreements with the Board’s decision. Failing to credibly raise an such abuse or error, Patent Owner’s Director Review Request should be denied.

Respectfully submitted,

Date: August 8, 2025
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CERTIFICATE OF SERVICE

The undersigned certifies, in accordance with 37 C.F.R. § 42.6, that
service was made on the Patent Owner as detailed below.

Date of service August 8, 2025

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