UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ORCA SECURITY LTD,
Petitioner,

v.

WIZ, INC.,
Patent Owner.

IPR2025-01087
Patent 12,003,529

PATENT OWNER WIZ, INC.'S PRELIMINARY RESPONSE

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I. INTRODUCTION

Patent Owner Wiz, Inc. requests denial of inter partes review (IPR) of the involved U.S. Patent No. 12,003,529 ("Cohen'529"). Petitioner Orca Security Ltd. has failed to demonstrate a reasonable likelihood that at least one of the claims challenged in the petition is unpatentable. 35 U.S.C. §324(a).

Petitioner proposes a single ground of unpatentability, which combines two Shua references (EX1004/EX1005) and Lang (EX1006). Paper 1 (Pet.), 4 ("Claims 1-17 are obvious under 35 U.S.C. §103 over Shua in view of Lang."). Claims 1, 9, and 10 are independent. However, the petition suffers from numerous deficiencies, each of which on its own provides reason enough to deny the petition.

First, Petitioner relies on EX1005 as a ground reference, but the exhibit is a provisional application, not a patent or published application that might be relied upon in an IPR. Nor has Petitioner established that a purported incorporation by reference into EX1004 changes the assessment, as the cited MPEP provision only serves to highlight the absence of the critical prior art disclosure from the exhibit eligible to serve as the basis of an IPR ground.

Petitioner's failure to establish its ground is based on eligible prior art should end the discussion, but turning to the merits of the ground reveals further

shortcomings. Petitioner's ground fails to identify a *security database*[1] in the prior art, and its analysis for that point is wholly conclusory. The petition further fails to identify a motivation to include Lang's AI model as an asset represented on Shua's graph, because the virtual machine ("VM") snapshot Petitioner relies on as containing the AI model is already an asset on the graph. Additionally, Petitioner's analysis impermissibly extends beyond the three cited ground references (one of which is not IPR-eligible prior art) to encompass numerous other gap-filling exhibits, for example with respect to limitation 1[e] where Petitioner relies on expert testimony and two additional exhibits to piece together its invalidity theory.

Accordingly, for the reasons detailed below, the Board should deny institution of the petition.

II. ANALYSIS

A. The Shua provisional application (EX1005) is not prior art

Petitioner expressly relies on both the Shua patent (Shua'863, EX1004) and the Shua provisional application (Shua'048, EX1005) as ground references. Pet. 6. Petitioner is wrong for at least two reasons. First, the provisional Shua'048 itself

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[1] For convenience, Wiz adopts Petitioner's convention of denoting claim language with italics. Pet. 10 n.2.

cannot be a basis for an IPR. 35 U.S.C. §311(b) ("only on the basis of prior art consisting of patents or printed publications"); s*ee also* 37 CFR §42.104(b)(2) (petition "must specify where each claim element is found in the ***prior art patents or printed publications***") (emphasis added). A provisional application is neither a patent nor a printed publication. Second, Petitioner urges that because the Shua'863 patent says it incorporates EX1005 by reference, it contains all of EX1005's disclosure. Pet. 7, citing MPEP 2163.07(b).[2] Petitioner's citation is inapposite: this provision discusses how to fix a new-matter problem in an application under examination, not how to shoehorn ineligible disclosure into a prior-art challenge. MPEP 2163 ("Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112(a) or Pre-AIA 35 U.S.C. 112, first paragraph, 'Written Description' Requirement"). Indeed, MPEP 2163.07(b)

[2] Even if it had been properly cited, the MPEP, of course, "does not have the force and effect of law or the force of the rules…." MPEP Foreword. Indeed, binding precedent gives little weight to nonspecific incorporations compared to what the actual patent disclosure says. *E.g.*, *Finjan LLC v. ESET, LLC*, 51 F.4th 1377, 1383 (Fed. Cir. 2022) (construing term differently than its use in incorporated disclosures).

specifically refers to 37 CFR §1.57 for the appropriate cure. Importantly, Rule 57(b) requires ***amending*** the disclosure to expressly incorporate the omitted disclosure. 37 CFR §1.57(b) (1) ("The application must be amended to include the inadvertently omitted portion of the specification or drawing(s) within any time period set by the Office, but in no case later than the close of prosecution"). Yet neither the Shua'863 patent nor Petitioner identifies any disclosure that has been specifically amended from the Shua'048 provisional application into the Shua'863 patent. Indeed, if the necessary provisional-application disclosure had been properly amended into the Shua'863 patent, Petitioner would have had no need to cite pervasively to the provisional application alone. In sum, the very MPEP provision on which Petitioner relies ***highlights*** why the omitted provisional material ***cannot*** be treated as part of the Shua'863 patent's disclosure.

Petitioner's sleight-of-hand incorporation of ineligible "prior art" is not harmless because Petitioner repeatedly relies on the Shua'048 provisional application alone for pivotal points in its argument. Pet. 12, 15, 18, 21, 22, 24, 25, 28, 31-333, 35, 37, 39-43, and 45; *see also* Pet. 18-19 n.4 ("For the avoidance of doubt, Ex. 1007 does not form part of the Grounds for Unpatentability presented herein, and the figures relied upon as evidence of unpatentability are the lower-quality versions from Ex. 1005."). Indeed, Petitioner's expectation-of-success argument is based solely on combining the Shua'048 provisional application

(EX1005) with Lang (EX1006). Pet. 12-13. Petitioner's improper attempt to convert the Shua'048 provisional application is far from harmless—it is essential to Petitioner's entire petition.

Even if Petitioner's use of the Shua'048 provisional application as part of the Shua'863 patent disclosure were appropriate, it would still present an *In re Arkley* problem. In *Arkley*, the court reversed an anticipation rejection because it stitched together different unrelated elements from ***the same*** prior-art disclosure using the applicant's claims as a guide. 455 F.2d 586, 587-88 (CCPA 1972). The Federal Circuit has explained that even for an obviousness challenge, disparate teachings in the same prior-art disclosure cannot be combined without explanation. *In re Stepan Co.*, 868 F.3d 1342, 1346 n.1 (Fed. Cir. 2017) ("Whether a rejection is based on combining disclosures from multiple references, combining multiple embodiments from a single reference, or selecting from large lists of elements in a single reference, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful, otherwise a skilled artisan would not arrive at the claimed combination."); *Impax Labs. Inc. v. Lannett Holdings Inc.*, 893 F.3d 1372, 1379-80 (Fed. Cir. 2018) (viewing reference as a whole is not license to combine without guidance). Here, Petitioner urges the Board to do something even more remarkable: combine teachings from two very different disclosures—one of which is not even eligible as prior art in an IPR

(§311(b))—without providing any analysis regarding motivation to combine the different disclosures' teachings or reasonable expectation that the combination would succeed. Yet simple comparison shows the Shua'863 patent and Shua'048 provisional application disclosures are very different, including very different figures, which is particularly significant given Petitioner's heavy reliance on the Shua'048 figures. Indeed, Petitioner never even says how or why the bits of disclosure it is cherry-picking from Shua'048 ***could*** be combined with the Shua'863 patent embodiments.

In sum, Petitioner would have the Board and Wiz proceed blindly to institution without critical analysis based on Petitioner's misplaced presumption that it can rely on the Shua'048 provisional application as a ground reference without supporting authority or analysis. Without the Shua'048 provisional-application disclosure as a ground reference, Petitioner lacks pivotal basis for its unpatentability case and accordingly fails to present a reasonable likelihood of prevailing.

B. Petitioner fails to show unpatentability

1. Claim 1[c]: "*generating a representation of the AI model in a security database, the security database including a representation of the computing environment*"

Claim 1 requires a *security database…including a representation of the*

computing environment.[3] The same limitation appears in independent claims 9 and 10, as well (Pet. 48, 50), so Petitioner's failure to show this limitation thwarts its arguments for the unpatentability of any of the claims.

a. Petitioner fails to show *the security database* in the prior art

Petitioner's limitation 1[c] analysis fails to identify a *security database* in the prior art. As explained below, in relying on the Shua'048 provisional, Petitioner appears to take the position that any stored representation of a computing environment will satisfy this limitation, effectively reading the *security database* requirement out of the claim.

Addressing limitation 1[c], Petitioner notes that the Cohen'529 patent identifies the Neo4j® database as an example of a security database. Pet. 17. Petitioner then asserts that graph databases such as Neo4j represent data as nodes connected by edges. *Id*. Petitioner then concludes that in the context of the Cohen'529 patent, "a stored representation of the computing environment as nodes, edges, and attributes of nodes and edges is a *security database including a representation of the computing environment*." *Id*. Petitioner's assertion inverts the appropriate understanding: just because the challenged patent identifies an example

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[3] For convenience, Wiz adopts Orca's convention of denoting claim language with italics. Pet. 10 n.2.

security database that stores a representation of a computing environment as nodes and edges does not mean that anything that stores a representation of a computing environment as nodes and edges is necessarily a security database.[4]

Petitioner then relies on this inverted understanding for its prior art mapping. Petitioner argues that the Shua'048 provisional application generates a map of assets that can be visualized as a graph. Pet. 18-19. Petitioner goes on to contend that "a POSITA would understand that Shua's graph representation is stored." *Id*., 19. Thus, at best, Petitioner alleges the Shua'048 provisional discloses a stored graph representation of a computer environment.

What is missing from Petitioner's analysis on pages 18-19 is any identification of a security database in the prior art. Indeed, the discussion of Shua's disclosure at pages 18-19 of the petition doesn't even mention the term *security database*, which does not reappear until Petitioner's conclusory summation on page 20. A map is not a database, and Petitioner fails to explain why a stored map necessarily satisfies the claim requirement, nor does it allege a

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[4] Notably, Petitioner does not propose construing *security database* to mean a stored representation of the computing environment as nodes, edges, and attributes of nodes and edges. Pet., 6 (proposing no terms for construction).

security database would be an obvious modification. Neither the Board nor Wiz should have to go into a trial without knowing how Petitioner would make this connection.

b. Petitioner's motivation theory is self-contradicting

In addition to failing to identify a security database in the prior art, or explain how the cited disclosure satisfies the claim, Petitioner's limitation 1[c] analysis also suffers from a deficient explanation of motivation to combine Lang's "representation of the AI model." Pet. 21.

Petitioner offers two related motivations for combining the Shua'048 provisional-application map and Lang's AI model. First, Petitioner broadly asserts a skilled artisan "would understand [the AI model] to have been stored with the other cloud asset representations." Pet. 20. Second, in a similar but more detailed argument, the petition contends that a skilled artisan would "add Lang's representations of the identified AI models into Shua's map[5] based on Shua's

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[5] For disclosure of "Shua's map," Petitioner turns to Exhibit 1007, despite disavowing any reliance on it as a ground reference. Pet., 18 n.4 (citing EX1007, 9 as supplementing the disclosure of EX1005 (Shua'048) while asserting "Ex. 1007 does not form part of the Grounds for Unpatentability"). As discussed below, Petitioner does in fact rely on EX1007 for disclosure of claim elements not found

teaching that the map should include the customer's 'entire environment,' at least because the AI models would represent cloud assets that are part of the customer's 'entire environment.'" Pet. 21. Petitioner blurs the meaning of "assets" without explanation, which leads Petitioner to circular logic for its motivation.

The Shua'048 provisional application is clear that its VMs are "assets": "[t]he cloud estate of an organization may include its complete inventory of cloud assets including running and stopped workloads of all types including VMs, …." EX1005, ¶0001; *see also* EX1003, ¶63 ("The Shua Provisional provides additional details, including the goal: to scan an organization's complete inventory of cloud assets (such as virtual machines) for vulnerabilities, misconfigurations, and lateral movement risk."); *cf.* EX1004 (Shua'863), 13:14-25 ("generating the map may include enumerating properties of all assets, including: virtual machines…."). That is, a VM is one type of asset depicted as a node in Shua'048's map, along with other "systems and devices" such as web servers and database servers. Pet., 18-19; EX1003, ¶102; *see also* EX1007, 9, (below).

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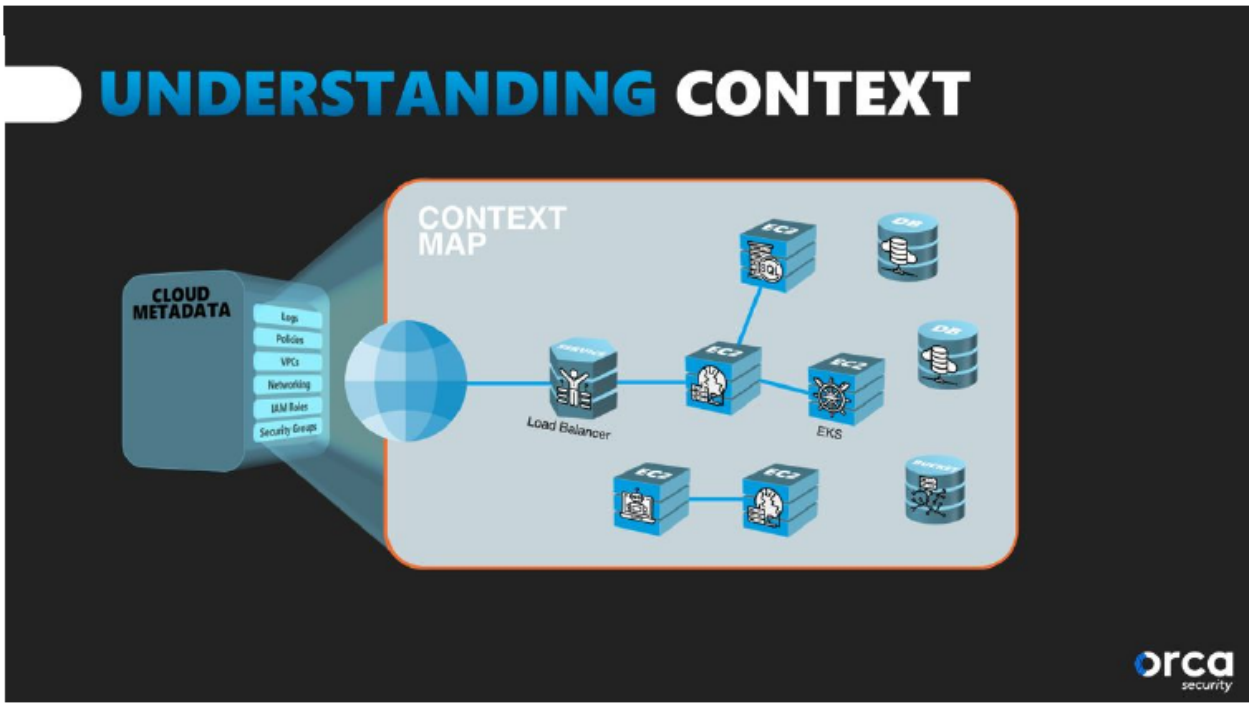
in EX1005.



Yet Petitioner relies on its expert, Dr. Zadok, to explain that an AI model would consist of code running on a VM, and captured in a snapshot. As Petitioner's expert explains, "snapshots are commonly used to capture the contents of a running virtual machine." EX1003, ¶89; *see also* Pet., 14 (citing same). The petition goes on to assert that in the proposed combination, Lang's AI model would be among the VM contents captured in Shua's snapshot. Pet. 21 ("A POSITA would understand that a computer binary containing AI code would be present in the virtual machine snapshots captured by Shua's system.") (citing EX1003, ¶¶105-06); *see also* Pet., 21 ("Shua's system would capture a snapshot of a disk from a virtual machine … and Lang's system would inspect the filed on the snapshot to identify the AI model."). The petition then asserts that the combined

system would "generate an abstract representation of the AI model that can be stored in Shua's map" because "the AI models would represent cloud assets." Pet., 21.

Thus, in Petitioner's telling, ***both*** the AI model and the virtual machine hosting the AI model are "assets." The problem with Petitioner's theory is the Shua'048 provisional application does not describe either the software running on a VM or the individual contents of the VM snapshot as being assets themselves. Rather, the VM is the asset. Petitioner identifies no disclosure in either Shua or Lang that would extend to an asset-in-an-asset such that an AI model running within a virtual machine would be considered a second asset. In fact, Petitioner's own characterizations of Shua highlight the issue. For example, Petitioner characterizes the Shua'048 provisional application as "analyzing the snapshot (i.e., inspecting the inspectable disk) ***for*** assets…." Pet. 15 (emphasis added). Yet, as Dr. Zadok explained, the snapshots are ***of*** assets, e.g., virtual machines. EX1003, ¶106 ("the snapshots ***of*** the disk captured from virtual machines running the AI models" (emphasis added)).

Petitioner's motivation theory creates a logical inconsistency. While Petitioner argues adding the AI model to Shua's map would be consistent with Shua's intent to represent all cloud assets (Pet., 21), the snapshot containing the AI model already corresponds to an asset represented on the map: the VM from which

the snapshot is taken. *E.g.*, EX1003, ¶89. *Henny Penny v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019) (affirming nonobviousness where no advantage to adding complexity where problem already solved in the prior art). Thus, Petitioner's circular logic would generate a second representation of something already included in the Shua'048 map. What Petitioner fails to explain is why anyone would deliberately pursue this—except out of improper hindsight to meet a claim limitation.

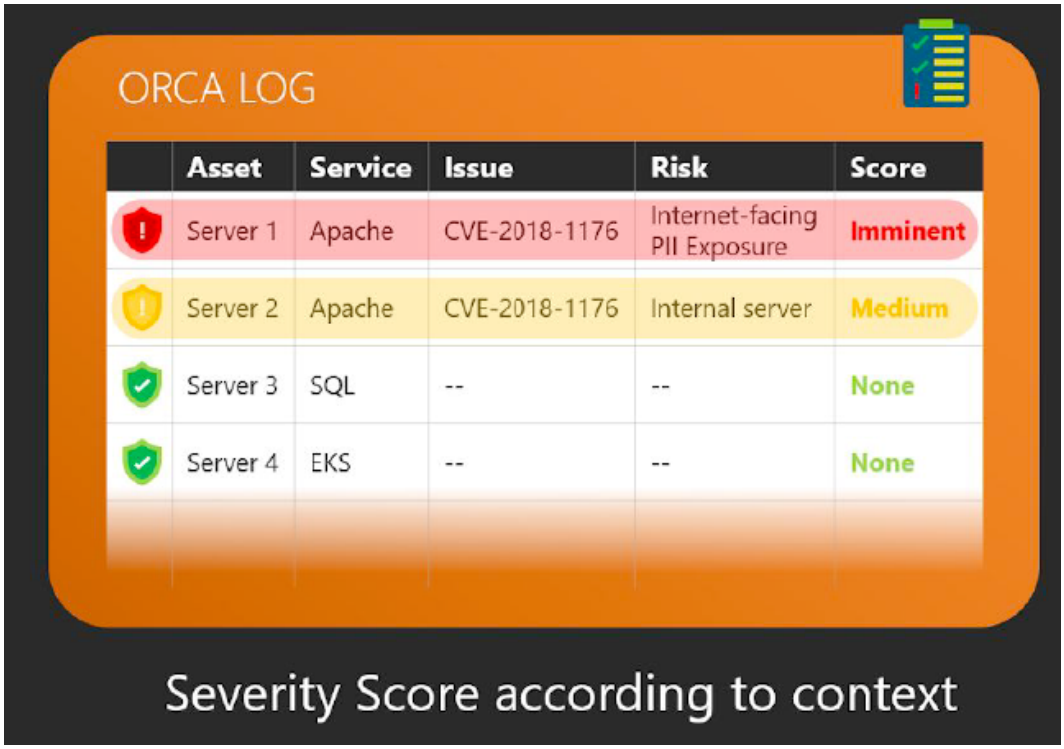
2. Claim 1[e]: "*generating a representation of the cybersecurity risk in the security database, the representation of the cybersecurity risk connected to the representation of the AI model in response to detecting the cybersecurity risk*"

Petitioner relies extensively on background references to fill gaps beyond what is missing in the Shua disclosures. For example, for limitation 1[e] ("*generating a representation of the cybersecurity risk in the security database, the representation of the cybersecurity risk connected to the representation of the AI model in response to detecting the cybersecurity risk*"), Petitioner relies (Pet. 23-25) on its expert (Dr. Zadok), who relies on a Petitioner technical brief (EX1007 in lieu of the ineligible Shua'048 provisional application, EX1005), which he interprets (EX1003, ¶¶52, 119) in terms of a NIST guide (EX1016) to address "*representation…in the securing database*".

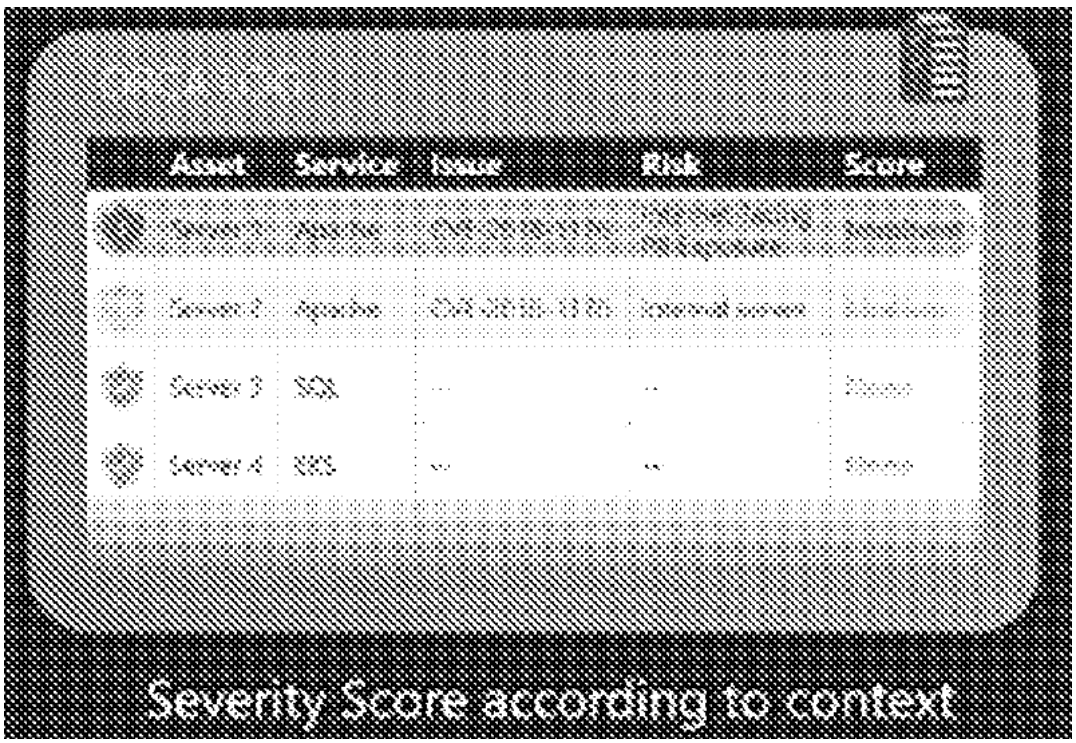
Despite this attenuated concatenation of inferences to apply art to claim limitations, neither Petitioner nor Dr. Zadok explain how the NIST guide discloses

generating the required representation. At best, their explanation appears to show Shua'048 provisional-application servers simply storing NIST's data, which is not the limitation they are addressing. Even if, somehow, the explanation were sufficient, it is based entirely on Dr. Zadok's interpolations without any teaching or suggestion in either the ground references or background references to pursue Dr. Zadok's meandering course. Only impermissible hindsight, motivated by a need to address claim language, can explain the result.

Moreover, the petition is wrong when it asserts that EX1007 "does not form part of the Grounds for Unpatentability presented herein." Pet., 18 n.4. For element 1[e], Petitioner relies on content from EX1007 that is not found in the corresponding figure in EX1005. For example, the petition relies on the fact that "'Server 1' and 'Server 2' have been annotated with a 'CVE' attribute" as allegedly meeting the *representation … in a security database* requirement. Pet., 25 (citing EX1003, ¶19, which in turn discusses EX1007 p. 17). Yet none of the "Server 1," "Server 2," or "CVE" text that Petitioner cites is present in the corresponding figure in EX1005. A comparison shows the absence of the text in question:



EX1007, 17.



EX1005, 25.

The content of EX1005 is not merely "reduced-quality" (Pet. 18); it is indecipherable and therefore lacking the text from EX1007 that Petitioner relies on in its element 1[e] mapping.

Petitioner argues that Dr. Zadok confirms EX1005 and EX1007 "correspond[]." Pet. 18, citing EX1003, ¶¶67-68. Petitioner's assertion is ***irrelevant even if Dr. Zadok had testified that they are identical*** because neither Petitioner nor Dr. Zadok asserts that EX1007 was in the prior art. *Id*. Thus, the record does not establish that a skilled artisan at the time of invention would have known—much less have been able to 'confirm'—what Petitioner purports EX1005 shows. Whatever Petitioner may say it is doing, its petition again improperly tries to incorporate disclosure into a reference without any basis in logic or law.

The same limitation appears in independent claims 9 and 10, as well (Pet. 48, 51), so Petitioner has failed to demonstrate the unpatentability of any of the claims.

C. The petition does not demonstrate reasonable expectation of success

Petitioner asserts that combining the teachings of the Shua'048 provisional application (EX1005) and Lang (EX1006) would have reasonably been expected to succeed. Pet. 12 (discussing "both references" with reference to EX1005 and EX1006). As explained above (§II.A), however, the Shua'048 provisional application (EX1005) is not eligible prior art in an IPR. §311(b). Hence, Petitioner

has provided no eligible basis for an obviousness determination and no reasonable expectation of success in combining the teachings of Lang (EX1006) with an IPR-eligible prior art reference.

III. CONCLUSION

Petitioner has failed to make a facial case of unpatentability for any challenged claim, so institution is unwarranted and should be denied.

Respectfully submitted,

Date: September 26, 2025

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CERTIFICATION UNDER 37 C.F.R. §42.24(d)

I certify the word count for this reply is 3128 words, excluding any table of contents, table of authorities, mandatory notices, certificate of service or word count, and appendix of exhibits or claim listing.

Date: September 26, 2025

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