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UNITED STATES PATENT AND TRADEMARK OFFICE

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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VISA INC.,  
Petitioner,

v.

CORTEX MCP, INC.,  
Patent Owner.

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Case No. IPR2024-00486  
U.S. Patent No. 9,251,531

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**PATENT OWNER'S REQUEST FOR DIRECTOR REVIEW  
OF FINAL WRITTEN DECISION**

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## I. INTRODUCTION

Patent Owner Cortex respectfully requests Director Review because the Final Written Decision violates Board rules, the AIA, and the APA by canceling 29 patent claims based on a new unpatentability theory never raised in the Petitions nor advanced by either party during the trial.

The Examiner allowed the claims in part because the issuing agency verification claim limitation was absent from the prior art, and the Petitions presented no prior art disclosing it. Yet, in an out-of-the-blue decision, the panel jettisoned the Petitions' theory and found this key limitation disclosed by Osborne. The panel's frolic and detour is nonsensical because it is predicated on a finding that Osborne's ¶ 47 taught *post-funded* tokens, when that same paragraph expressly taught only "*pre-funded*" tokens. There is a reason Visa never made this argument.

Director Review is therefore warranted to undo the Board's erroneous and unsupported decision.

## II. BACKGROUND

Cortex invented a new concept called an "OVER file" to simplify and secure electronic payments using a virtual representation of a credential, such as a credit card or driver's license, and filed its provisional application in 2012. EX1001 at 1, [60]. Visa and its subsidiaries initially expressed interest in Cortex's invention, gleaning the details under an NDA over multiple meetings with Cortex in 2013

and 2016. EX1018 ¶¶ 10-11. But Visa soon dropped the pretense by deciding not to partner with Cortex and launched its own Visa Token Service instead. Paper 7 (“POPR”) at 10-11.

The Patent Office issued the ’531 Patent to Cortex in 2016. EX1001 at 1, [45]. The claims require a virtual representation of the credential be “verified by an issuing agency to be an official representation of the credential.” EX1001 at 21:25-27, 22:63-65, 23:39-41 (independent claims 1, 15, 21). During prosecution, the Examiner found that issuing agency verification was not taught by the prior art of record and based allowance on that key limitation. EX1007 at 20.

After Cortex stood up to Visa and sued for patent infringement, Visa filed two separate IPR petitions targeting the patent in 2024, *eight years* after the ’531 Patent issued. Yet Visa’s Petitions presented no prior art disclosing the key limitation upon which the Examiner allowed the claims, 486 Paper 2 (“486-Pet.”) at 21-23; 487 Paper 2 (“487-Pet.”) at 22-24, and Cortex pointed out that the Petitions instead only supplied common sense to fill in the missing limitation, POPR at 27. The Board instituted and consolidated the two IPRs. Paper 10 at 2. During the trial, Visa effectively abandoned its Osborne ground, pivoting to a broader claim construction to allege obviousness. Paper 18 (“Reply”) at 2. The panel’s Final Written Decision confirmed some claims but unexpectedly canceled Claims 1, 3-6, 8-18, and 21-33

based on its own concocted theory that a two-step process for Osborne’s pre-funded tokens disclosed issuing agency verification. Paper 31 (“FWD”) at 25-27, 52, 77.

This request for Director Review followed.

### **III. LEGAL STANDARD**

Director Review is appropriate when the Board abuses its discretion in the final written decision. Director Review Process § 2.B. “The Board abuses its discretion if its decision (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact finding; or (4) involves a record that contains no evidence on which the Board could rationally base its decision.” *Sierra Wireless v. Sisvel S.p.A.*, 130 F.4th 1019, 1024 (Fed. Cir. 2025) (citation omitted).

Board rules require petitions to “specify where each element of the claim is found in the prior art patents or printed publications relied upon.” 37 C.F.R. § 42.104(b)(4); *see also* 35 U.S.C. § 312(a)(3). In rendering a final written decision, “the Board should limit itself to the teachings on which Petitioner relies.” *Mastercard v. OV Loop*, IPR2023-01289, 2025 WL 1663718, at \*1 (P.T.A.B. June 10, 2025) (granting Director Review).

### **IV. ARGUMENT**

The Board’s injection of a brand-new unpatentability theory to cancel claims improperly departed from the Petitions and ignored both Board rules and the AIA.

Relying on a theory advanced by no party during the trial further prejudiced Cortex and violated the APA by depriving Cortex of its patent claims without reasonable notice or opportunity to respond. The Board further abused its discretion because its new theory is contradicted by the purported prior art disclosures it relies on. For any of these reasons, the Director should reverse the Board's Decision and confirm patentability of Claims 1, 3-6, 8-18, and 21-33.

**A. The Final Written Decision Injected An Entirely New Two-Step Theory Absent From The Petitions And Never Advanced During The IPR**

The Board found Claims 1, 3-6, 8-18, and 21-33 obvious over Osborne's teachings based on a new theory absent from the Petitions and not raised by either party during the IPR. All claims of the '531 Patent require issuing agency verification: "a virtual representation of the credential that has been verified by an issuing agency to be an official representation of the credential." EX1001 at 21:25-27, 22:63-65, 23:39-41 (independent claims 1, 15, 21). The Final Written Decision canceled the claims because a two-step process for Osborne's pre-funded tokens allegedly disclosed the limitation, FWD at 25-27, and this finding underpins the Board's unpatentability determination for Claims 1, 3-6, 8-18, and 21-33, *see* FWD at 52, 77 (Claim 1 analysis applied to independent claims 15 and 21). But Visa never presented this theory in its Petitions or at trial.

The Petitions. Visa’s Petitions alleged that Osborne disclosed the claimed issuing agency verification because the issuer can operate Osborne’s token server. 486-Pet. at 22-23; 487-Pet. at 23-24. It offered only a single sentence of analysis supporting its issuer theory:

By generating the token and providing it to the user to represent the credential it has issued, the issuer would be verifying it to be an official representation of the credential.

486-Pet. at 23; 487-Pet. at 24. Neither the Petitions nor Visa’s expert mentioned Osborne’s pre-funded tokens or a two-step process of generating a token *before* verifying funding for the token. *See, e.g.*, 486-Pet. at 21-23; 487-Pet. at 22-24; EX1005 ¶ 240.

The Reply. After Cortex pointed out that Osborne did not disclose any verification step, Paper 14 at 10-11; *see also id.* at 12-16, and the Board refused to endorse the Petitions’ disclosure theory at institution, *see* Paper 8 at 24, Visa argued unpatentability based on a broader claim construction, Reply at 2.

Visa’s Petitions initially acknowledged that issuing agency verification required verification of a virtual representation of the credential. 486-Pet./487-Pet. at 14. Yet on Reply, Visa argued that checking the virtual representation was no longer required but could be satisfied by merely “checking credential data against

an issuing-agency database.” Reply at 2. Under its new Reply construction, Visa asserted that

Oborne teaches this same type of check. For example, Oborne teaches obtaining “assurance” of sufficient funds from the issuer for pre-funded tokens. EX1011, ¶47 (such tokens deemed “pre-authorized”) (cited at 486-Pet., 22).

Reply at 4. In other words, Visa argued on Reply that checking any underlying credential data constituted verification of the virtual representation by the issuing agency *without regard to when it was performed*. See *id.*

Visa’s Reply never mentioned a two-step process of generating a token before verifying its funding. See Reply at 2-4.

The FWD’s New Two-Step Theory For Canceling Claims. The Board’s Final Written Decision is predicated on a new unpatentability theory that Oborne disclosed issuing agency verification. It found that Oborne disclosed a two-step process of verifying a virtual representation by an issuing agency, specifically: (1) “first generate a token” and (2) “[t]hen, the token may be pre-funded by obtaining assurance that the funds have been uniquely and exclusively allocated for the token from the source to which the token points.” FWD at 27 (citation modified) (quoting EX1011 ¶47). The Board relied on its two-step verification finding to conclude that “Oborne discloses verifying that the *token* including the XML bank account

information in its data structure (the virtual representation of the bank account information) is valid, not merely that bank account information, standing alone, is valid.” FWD at 27 (emphasis in original).

As explained, the Petitions’ original theory that issuing agency verification was taught by the issuing agency operating the token server never mentioned Osborne’s pre-funded tokens or a two-step theory for funding them. 486-Pet. at 21-23; 487-Pet. at 22-24. The Petitions provide no support for the Board’s new two-step theory. *See id.*

Visa’s improper introduction of a substitute theory for issuing agency verification on Reply also provides no basis for the Final Written Decision’s two-step theory. Unlike the Board’s unpatentability finding, Visa never argued that Osborne’s pre-funded tokens are checked *after* the token is generated. Reply at 3-4. Instead, consistent with Osborne’s disclosure, the only reasonable interpretation of Visa’s Reply is that it referred to checking credential data *before* generating the token. *See* Reply at 4 (“For example, Osborne teaches obtaining ‘assurance’ of sufficient funds from the issuer for *pre*-funded tokens”; “such tokens deemed ‘*pre*-authorized’”). At best, Visa’s Reply was silent as to Osborne’s order of credential checking versus token generation, *see* Reply at 3-4, and it provided no expert testimony on Osborne with its Reply, *see* EX1048.

Visa and its expert never asserted that Osborne taught (1) “first generate a token” and (2) “[t]hen, the ‘*token* may be pre-funded’....” FWD at 27 (emphasis in original).

**B. 37 C.F.R. § 42.104 And 35 U.S.C. § 312 Require All Unpatentability Grounds Be Specified In The Petitions**

The Board violated its own rules and the AIA by finding that Osborne’s pre-funded tokens disclosed issuing agency verification when the Petitions never set forth this unpatentability theory. *Compare* FWD at 27, *with* 486-Pet. at 21-23, *and* 487-Pet. at 22-24.

Petitions must “specify where each element of the claim is found in the prior art patents or printed publications relied upon.” 37 C.F.R. § 42.104(b)(4); *see also* 35 U.S.C. § 312(a)(3) (Petitions must identify with particularity “the evidence that supports the grounds for the challenge to each claim.”). Here, Visa’s Petitions did not rely on Osborne’s pre-funded tokens or a two-step process of token generation followed by credential checking to allege disclosure of generating “a virtual representation of the credential that has been verified by an issuing agency,” required by all claims. 486-Pet. at 21-23; 487-Pet. at 22-24. Instead, the Petitions offered only a single sentence vaguely asserting that Osborne disclosed this limitation when an issuer operated the token server:

By generating the token and providing it to the user to represent the credential it has issued, the issuer would be verifying it to be an official representation of the credential.

486-Pet. at 23; 487-Pet. at 24. Because the Petitions never identified Osborne’s pre-funded tokens as satisfying the issuing agency verification limitation nor asserted any two-step theory of token generation followed by credential checking, the Board’s finding violated its rules and the AIA. 35 U.S.C. § 312(a)(3); 37 C.F.R. § 42.104(b).

Canceling patent claims based on a theory never advanced in the Petitions warrants reversal.

**C. The Board Violated The APA By Introducing Its Own Unpatentability Theory In The Final Written Decision**

The Board’s new theory also violated the Administrative Procedure Act (“APA”). Canceling claims in the Final Written Decision based on the panel’s own initiative both prejudiced Cortex and deprived it of adequate notice and an opportunity to respond. 5 U.S.C. § 554(b); *In re Magnum Oil Tools Int’l*, 829 F.3d 1364, 1381 (Fed. Cir. 2016) (The Board’s “authority is not so broad that it allows [it] to raise, address, and decide unpatentability theories never presented by the petitioner and not supported by record evidence.”).

Cortex was not on notice of the Board’s two-step theory for finding that Osborne disclosed issuing agency verification. Visa did not raise it in its original

Petitions or even in its new theory presented on Reply. 486-Pet. at 21-23; 487-Pet. at 22-24; Reply at 3-4; *supra* § IV.A-IV.B.

The Board’s questions about Osborne’s ¶ 47 at the hearing also provided no adequate notice. *See* Paper 30 (“Tr.”) at 53:7-17. After Cortex clarified that the Board’s questioning was “articulating a new obviousness rationale,” the Board quickly downplayed it:

|    |                                                                             |
|----|-----------------------------------------------------------------------------|
| 20 | MR. WILSON: Okay. So just to be clear, you're articulating a                |
| 21 | new obviousness rationale --                                                |
| 22 | JUDGE CASS: Well, I mean, I don't want to say whether it's                  |
| 23 | new or not new, but I'm just curious why that would not be obvious. I think |

Tr. at 53:20-23. Certainly, asking questions about whether Osborne’s ¶ 47 rendered the claims obvious, Tr. at 53:7-17 (“JUDGE CASS: ... why wouldn’t it be **obvious** to verify the information that’s in there?”), provided no notice of the disclosure theory the Board deployed in its Final Written Decision, FWD at 25 (“We also find that Osborne **discloses** that the issuing agency verifies the token....”).

Cortex correctly explained at the hearing that “Osborne will go and verify that there is actually a bank account there, maybe even that there are funds in it... **before it generates a token**” and that Osborne “doesn’t check that token data structure in paragraph 47.” Tr. at 55:6-9, 56:10-21. Nevertheless, the Board found the opposite in its Final Written Decision, FWD at 25-28, without allowing either party the opportunity for briefing or submitting evidence or expert testimony on the issue.

Even if the Board’s vague questions at the hearing provided adequate notice of its two-step disclosure theory, canceling claims under its new theory would still violate the APA because “[t]he oral argument presented no opportunity for [Cortex] to supply evidence, whether expert or lay or documentary evidence” in response to the new theory. *Dell v. Acceleron*, 818 F.3d 1293, 1300-01 (Fed. Cir. 2016).

The Board’s decision further may be reversed for violating the APA.

**D. The Board’s Finding That Osborne Discloses “Verified By An Issuing Agency” Is Contradicted By Osborne Itself**

Even if the Director finds no abuse of discretion for violating the Board’s rules, the AIA, or the APA, the Board’s new two-step theory should be set aside for the additional reason that the record “contains no evidence on which the Board could rationally base its decision.” *Sierra Wireless*, 130 F.4th at 1024 (citation omitted). The Board clearly abused its discretion by finding that Osborne disclosed issuing agency verification by purportedly *post*-funding tokens, when in fact Osborne’s ¶ 47 exclusively taught *pre*-funding tokens. *Compare* FWD at 26-27, with EX1011 ¶ 47; *Amazon.com v. B.S.D. Crown*, IPR2025-00057, 2025 WL 2331293, at \*1 (P.T.A.B. Aug. 12, 2025) (granting Director Review where the Board “misapprehended” patent teachings).

The Final Written Decision found that Osborne’s ¶ 47 disclosed *first* creating a token in the form of the XML data structure shown in that paragraph and *then*

verifying the information contained in the token with the database of the issuing agency. *See* FWD at 27. Put another way, the Board found that Osborne taught *post*-funding tokens. *See id.* Yet the decision provides no support from Osborne for its new theory. It cites only to Osborne’s ¶ 47 for this proposition, without any explanation for how it arrived at its finding that the token data structure is first generated before its funding is checked. *Id.* Not only did Osborne not disclose any such scenario, but its disclosure of *pre*-funding tokens also expressly contradicts the Board’s finding, rendering it clearly erroneous. EX1011 ¶ 47.

Osborne’s ¶ 47, relied upon by the Board, describes the token server receiving a token data form from a client to generate a token: “[t]he token server may obtain the form, and parse the form to extract data fields and values from the form to generate a token data record, e.g., 515.” EX1011 ¶ 47. To “generate a token data record,” Osborne’s ¶ 47 elaborates:

In some implementations, each token may be *pre*-funded. For example, the source of the token (e.g., issuer, acquirer, independent token arbitrator) may *first* obtain assurance that funds have been uniquely and exclusively allocated for the token from the source to which the token points. Thus, in some implementations, the token may be *pre*-funded and *pre*-authorized for up to (or in the alternative, for exactly) a *pre*defined amount of a purchase transaction.

EX1011 ¶ 47. The reference to **first** obtaining assurance that the funds have been allocated, and the **pre-** references, refer to **before** generating the token data structure in Osborne’s ¶ 47. *Id.* In other words, the same paragraph the Board relied on in fact contradicts its conclusion that the token data structure is post-funded. FWD at 27. The Board simply had no basis for its finding that the token is generated **then** funded. Compare FWD at 26-27, with EX1011 ¶ 47.

The Decision inaccurately states that Cortex’s counsel admitted that Osborne’s ¶ 47 disclosed verification of a token. FWD at 26 (citing Tr. 54:23-55:4). Instead, Cortex explained: (1) the steps Osborne discloses would occur “**before** it generates a token” and (2) Osborne does not check the token data structure in ¶ 47. Tr. at 55:3-13, 56:10-21. The Decision’s quotation of the hearing transcript with Cortex’s explanation that Osborne’s steps occur “**before** it generates a token” shows the Board either misunderstood or misrepresented it. FWD at 26 (quoting Tr. at 55:4-9).

It is nonsensical that checking the XML bank account information would be a verification of the token both because (1) it was done **before** the token is generated and (2) it was not a check of the **token** itself. EX1011 ¶ 47; *see also* Tr. at 55:3-13, 56:10-21. Not only are Osborne’s disclosures contradictory to what the Board found, but it is **impossible** for there to be a verification of something that does not yet exist.

As a result, the record evidence only confirms that Osborne did not disclose verification of a token.

The sole basis for the Board’s determination that Osborne disclosed issuing agency verification of a virtual credential is its finding that Osborne’s “pre-funding” is actually *post*-funding. FWD at 23-28. That finding is clearly erroneous, an abuse of discretion, and should be reversed. Because that finding in the Osborne grounds represents the only basis on which Claims 1, 3-6, 8-18, and 21-33 were found unpatentable, the claims should be confirmed over all grounds raised in the Petitions. FWD at 52-53, 77; *see, e.g., Amazon.com*, 2025 WL 2331293, at \*1 (granting Director Review where the Board’s FWD “misapprehended” patent teachings).

## V. CONCLUSION

For the foregoing reasons, Cortex respectfully requests that the Director grant review, set aside the Board’s finding that Osborne disclosed issuing agency verification, and confirm patentability of Claims 1, 3-6, 8-18, and 21-33 of the ’531 Patent.

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**CERTIFICATE OF SERVICE**

The undersigned certifies that pursuant to 37 C.F.R. § 42.6(e), a true copy of the foregoing **PATENT OWNER'S REQUEST FOR DIRECTOR REVIEW OF FINAL WRITTEN DECISION** is being served electronically on August 20, 2025 to the following lead and backup counsel for Petitioner to the following email addresses:

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