

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CSC SERVICEWORKS, INC.,
Petitioner,

v.

PAYRANGE INC.,
Patent Owner.

Case No. IPR2023-01188
Patent 10,891,608

**PATENT OWNER'S PRELIMINARY RESPONSE
PURSUANT TO 37 C.F.R. §42.107**

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I. Introduction

This follow-on petition is time-barred, wastes the Board’s resources, and fails on the merits. In response to the copying of PayRange’s electronic payment devices—which allow smartphone users to make mobile purchases from unnetworked, legacy vending machines—PayRange filed two infringement actions involving U.S. Patent No. 10,891,608 (“the ’608 patent”): one against KioSoft Technologies, LLC (“KioSoft”) and TechTrex, Inc. (“TechTrex”) and a second against their customer, CSC ServiceWorks, Inc. (“CSC” or “Petitioner”). KioSoft and TechTrex (collectively, the “prior petitioners”) filed a petition against the ’608 patent in PGR2021-00084. Over a year and a half after the Board denied institution of that case, CSC has filed another flawed petition without disclosing its relationship with the prior petitioners, who are now time-barred, and without attempting to justify its serial challenge to the ’608 patent. The Board should deny institution for multiple reasons.

First, the petition fails to identify time-barred real parties in interest (“RPIs”). Despite bearing the burden to show that the petition identifies all RPIs and is not barred under §315(b), Petitioner failed to disclose its relationship to the time-barred parties, let alone prove that they are not RPIs. *Worlds Inc. v. Bungie*,

Inc., 903 F.3d 1237, 1242 (Fed. Cir. 2018) (burden on petitioners). The petition only mentions the prior petitioners in its cursory discussion of *General Plastic*, alleging that it has “no significant relationship” with them. Pet., 12. The public record contradicts that assertion, however, showing that Petitioner was a customer of the prior petitioners, that the infringement claims against Petitioner are based in part on technology supplied to CSC by the prior petitioners, and that the prior petitioners indemnified Petitioner against PayRange’s infringement claims. *Infra*, §V.A. Petitioner cannot avoid §315(b) by attempting to hide its relationship with time-barred parties.

Second, even if the Board does not find the record sufficient at this stage to find that the prior petitioners are RPIs, Petitioner still fails to justify the unfairness and inefficiencies of this follow-on petition. The petition offers only a cursory, misleading discussion of *General Plastic* that fails to analyze the actual factors. Application of the *General Plastic* factors to the evidence shows that all seven factors weigh against institution. Accordingly, the Board should exercise its discretion to deny institution of this follow-on petition filed two years after the unsuccessful challenge of Petitioner’s time-barred, indemnifying supplier.

Regardless, the petition fails on the merits. Petitioner fails to show that numerous claim elements are taught by the applied references, relying instead on

uncorroborated testimony that essentially just repeats the petition's flawed arguments verbatim. The petition also fails to demonstrate a reason to combine the references as proposed, relying on the addition of redundant functionality for LeMay and failing to identify a reason to apply the relied-upon teachings of Sugimoto. The petition's legally and factually deficient grounds thus fail to demonstrate a likelihood of prevailing against any challenged claim.

The petition therefore fails on every level: Petitioner fails to meet its burden of showing that the petition is not time-barred, fails to justify its unfair and inefficient serial challenge under the *General Plastic* factors, and fails to prove that any claim was unpatentable. Accordingly, institution of *inter partes* review should be denied.

II. Factual Background

Founded in 2013, PayRange Inc. invented its own mobile payment technology for non-networked, unattended retail machines such as legacy vending machines. PayRange's innovations allow vending-machine operators to insert a pocket-sized device into such legacy machines so that these non-networked machines can communicate with customers' smartphones. Customers could then buy goods or services from the machines in seconds through a specially coded application on their phone. The Office awarded PayRange the '608 patent in

January 2021 for this breakthrough. The underlying application is related to a series of applications, all of which issued as patents (U.S. Patent Nos. 9,875,473; 9,256,873; 9,547,859; and 8,856,045), with priority to 2013. EX1001, Cover (fields 60, 63).

On March 15, 2023, PayRange sued Petitioner in United States District Court for infringing the '608 patent and U.S. Patent Nos. 8,856,045, 10,438,208, and 11,481,772, and filed an amended complaint for infringement of the same patents on May 19, 2023. EX2001, ¶25. The court case schedule calls for opening claim construction briefs to be submitted on March 21, 2024 and fact discovery to be completed by July 25, 2024. EX2002, 14-15.

III. Overview of the '608 Patent

The petition ignores the plain language of the claims. Claim 1 is reproduced below (emphases added):

A payment module for an offline payment-operated machine including a coin receiving switch, the payment module comprising:

- a short-range wireless transceiver configured to communicate with one or more mobile devices;
- one or more processors;
- a first interface module configured to output to a control unit of the offline payment-operated machine one or more electrical pulses, each of the one or more *electrical pulses emulating an analog signal generated*

by the coin receiving switch of the offline payment-operated machine in response to insertion of a single coin of a predetermined type in the offline payment-operated machine; and

memory with one or more programs for execution by the one or more processors, the one or more programs including instructions for:

storing, in the memory of the payment module, a number of the electrical pulses that must be received by the control unit to initiate an operation of the offline payment operating machine;

receiving a wireless request via the short-range wireless transceiver from a respective mobile device of the one or more mobile devices to initiate a cashless operation of the offline-payment operated machine; and

in response to the wireless request:

determining a first number of electrical pulses to output via the first interface module to the control unit of the offline payment-operated machine in order to initiate the requested cashless operation of the offline payment-operated machine;

causing the offline payment-operated machine to initiate the requested cashless operation by issuing the first number of electrical pulses to the control unit via the first interface module; and

sending operation information corresponding to the initiated operation of the offline payment-operated machine

to the respective mobile device via the short-range wireless transceiver.

Independent claim 7 is directed to a method of accepting electronic payments, independent claim 13 is directed to an offline payment-operated machine, and independent claim 19 is directed to a payment module having a first and second interface module.

As discussed below, the petition's analysis systematically ignores the plain language of the claims, including many of the limitations discussed above.

IV. Claim Construction

In an IPR, a claim is given its ordinary and customary meaning in light of the specification. 37 C.F.R. §42.100(b). No constructions are necessary to deny institution because the petition facially fails to show that the references satisfy the plain language of the claims (*e.g., infra*, §§VII.A-B) and because denial is warranted for numerous other reasons that do not depend on claim construction (*e.g., infra*, §§V, VI, VII.C).

V. The Board Should Deny Institution Because Time-Barred Prior Petitioners Are Unnamed Real Parties in Interest

The petition fails to identify at least two RPIs—KioSoft and TechTrex—who were served with a complaint alleging infringement of the '608 patent more than one year before this petition was filed. *See* Pet., 80 (identifying only CSC as

the RPI). As an initial matter, this means the petition fails to satisfy the statutory requirements of an IPR petition. 35 U.S.C. §312 (petitions may be considered “only if” all RPIs are identified). This deficiency cannot be remedied because, with KioSoft and TechTrex properly identified as RPIs, the petition is time-barred under 35 U.S.C. §315(b).

A. KioSoft and TechTrex Are Real Parties in Interest

KioSoft and TechTrex fall squarely within the “expansive” meaning of a real party in interest. *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018) (“*AIT*”) (RPI must be given its “expansive common-law meaning”). The Federal Circuit has explained that a key purpose of the RPI inquiry is to safeguard patent owners from belated administrative attacks from related parties via the one-year time bar. *Id.*, 1350. To achieve that purpose, the RPI inquiry “demands a flexible approach” considering both equitable and practical considerations to determine whether the party “is a clear beneficiary that has a preexisting, established relationship with the petitioner.” *Id.*, 1351. As explained below, the prior petitioners easily meet this standard because they have a significant relationship with CSC and directly benefit from this proceeding.

While CSC claims it “has no significant relationship with the prior petitioner” (Pet., 12), extensive evidence contradicts that assertion. The customer-

supplier relationship is noted in PayRange’s infringement complaints, and prior petitioners’ counsel represented to the district court that CSC was in fact a customer. *See, e.g.*, EX2003, ¶31 (CSCPay Mobile powered by KioSoft and TechTrex); EX2001, ¶¶5, 20, 73-76 (accused systems include CSCPay Mobile); *see also* EX2001, ¶21 (KioSoft was CSC’s technology supplier); EX2004, 83:21-84:4. The president of KioSoft and TechTrex confirmed that CSC—one of the largest laundry route operators in the U.S., with a 55% market share—was a KioSoft customer and that a system was developed by KioSoft/TechTrex for CSC.¹ *E.g.*, EX2004, 39:14-20 (testifying that CSC is a customer), 43:22-44:12 (same), 45:6-16 (“[T]he whole solution that [CSC was] carrying was fully developed by us.”). The existence of CSC’s KioSoft-based products can also be seen in online marketplaces. *E.g.*, EX2005. In fact, in 2021 CSC was deposed in the lawsuit brought by PayRange against KioSoft and TechTrex. EX2001, ¶21. The public

¹ Charles Lee is the president and head of both the US company (KioSoft) and the Canadian company (TechTrex), and during his testimony he agreed that the use of “KioSoft” would refer to both companies. EX2004, 21:19-22:9. Regardless, a finding that either party is an RPI is dispositive since both parties were served with a complaint more than one year before this petition was filed. *Infra*, §V.B.

record is thus replete with evidence that CSC products use technology supplied by the prior petitioners.

In addition to the undisclosed customer-supplier relationship, the petition also fails to disclose that the prior petitioners indemnified CSC against PayRange's infringement claims. The prior petitioners' president confirmed the existence of this indemnification agreement:

Q. Now, I believe in your direct examination you mentioned that both CS[C] and Wash had requested indemnification from KioSoft; is that correct?

A. Yes.

Q. **Did KioSoft provide indemnification to CS[C] and Wash?**

A. We did provide -- my understanding -- again, this is a lot of legalese here, but **I believe we provided indemnification to CS[C]**, but [not] for Wash -- because they developed their own app. So, **CS[C] was -- the whole solution that they were carrying was fully developed by us.**

EX2004, 45:6-16 (emphasis added); *see also id.*, 39:21-40:6 (CSC contacted Mr. Lee requesting indemnification against PayRange's infringement claims). Thus, far from having "no significant relationship" with the prior petitioners as CSC alleges (Pet., 12), there was a direct customer-supplier relationship between the parties as well as an indemnification agreement.

Given this relationship, the prior petitioners are clear beneficiaries of this proceeding. The prior petitioners directly benefit from this proceeding since they have indemnified CSC against PayRange’s infringement claims. EX2004, 45:6-16. The prior petitioners also independently benefit from this proceeding because they are accused of infringement of the ’608 patent in a separate lawsuit. *E.g.*, EX2003, ¶¶3, 42-51. Moreover, the prior petitioners have an “additional benefit” recognized by the Board because they “unsuccessfully attempted to challenge the patents at issue in a prior AIA proceeding and any further challenges would be time-barred under § 315(b).” *RPX Corp. v. Applications in Interest Time, LLC*, IPR2015-01750, Paper 128 at 23-24 (precedential); *infra*, §V.B (petition filed more than one year after service of complaint against prior petitioners).

Beyond the customer-supplier and indemnification relationships and the fact that KioSoft also stands accused of infringing the ’608 patent, KioSoft and TechTrex stand to benefit from this IPR simply by virtue of being engaged in their own litigation with PayRange. Over the past three months, CSC, KioSoft and TechTrex have engaged in a tightly-spaced series of attacks on PayRange’s patent

portfolio, filing a combined seven petitions against seven different patents.²

Regardless of which party filed each specific petition, taken collectively the challenges can only be viewed as a coordinated effort to undermine PayRange's intellectual property and divert PayRange's attention and resources from the infringement cases. Thus, KioSoft and TechTrex stand to gain a litigation benefit from this IPR that is not limited to the '608 patent specifically.

Lastly, the equities weigh against Petitioner given the apparent lack of candor regarding its well-established relationship with the prior petitioners. *AIT*, 1351 (RPI inquiry involves equitable considerations). As explained above, Petitioner not only failed to disclose that relationship in the petition, it also affirmatively represented that it has no significant relationship with them. Pet., 12. This assertion is misleading at best, placing the equities squarely against Petitioner in the RPI inquiry.³

² See IPR2023-01186 (July 17, 2023), IPR2023-01187 (July 17, 2023), PGR2023-00042 (July 25, 2023), PGR2023-00045 (August 1, 2023), PGR2023-00050 (August 15, 2023), IPR2023-01449 (October 9, 2023).

³ Sanctions may also be appropriate under 37 C.F.R. §42.11-12 (sanctionable conduct includes misrepresenting facts and advancing misleading arguments).

Accordingly, the prior petitioners are clear beneficiaries of this proceeding and have a preexisting, established relationship with the petitioner. They are therefore RPIs under the expansive test set forth by the Federal Circuit. *AIT*, 1350-51.

B. The Petition is Time-Barred Under §315(b)

The prior petitioners' status as RPIs is fatal to the petition. An IPR "may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." As explained above, KioSoft and TechTrex are RPIs in this proceeding. *Supra*, §V.A. This petition was filed on July 17, 2023, and KioSoft and TechTrex were served with a complaint alleging infringement of the '608 patent over a year and a half earlier in January 2021. EX2003, ¶3; EX2006. This petition is therefore time-barred under §315(b).

VI. The *General Plastic* Factors Favor Denying Institution

Even if the Board does not find the current record sufficient to determine that KioSoft and/or TechTrex is an RPI, denial is still warranted because of the inefficiencies and unfairness of subjecting PayRange to serial challenges from related parties. The Board has unreviewable discretion to deny institution under

§314(a), and the exercise of that discretion is guided by factors set forth in *General Plastic. General Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19, at 15-16 (precedential §II.B.4.i) (“*General Plastic*”). Those factors include:

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;
2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;
3. whether at the time of filing of the second petition the petitioner already received the patent owner’s preliminary response to the first petition or received the Board’s decision on whether to institute review in the first petition;
4. the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;
5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;
6. the finite resources of the Board; and
7. the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

Id. As explained below, the petition’s cursory, three-sentence discussion of *General Plastic* does not meaningfully apply the *General Plastic* factors—e.g., it does not address specific factors, and the substance of the cursory discussion at best relates only to factor 1—and it omits or misstates material facts. Applying *General Plastic* to the actual facts overwhelmingly supports denial of this follow-on petition.

Factor 1 favors denial because of CSC’s significant relationship with the prior petitioners. Though *General Plastic* describes this factor as considering whether the same petitioner previously filed a petition, the Board has clarified that “when different petitioners challenge the same patent, we consider any relationship between those petitioners.” *Valve Corp. v. Elec. Scripting Products, Inc.*, IPR2019-00062, Paper 11 at 9 (precedential) (“*Valve*”). Similar to *Valve*, where the Board found that factor 1 weighed against institution, all challenged claims were previously challenged in PGR2021-00084, CSC was a customer of the prior petitioners, and CSC is accused of infringement in part based on technology supplied by the prior petitioners. *See id.*, 9-10 (successive petitions challenge same claims, and current/prior petitioner accused of infringement based on same product); PGR2021-00084, Paper 1 at 10 (challenging ’608 claims 1-20); *supra*, §V.A (explaining relationship between parties). Indeed, the parties’ relationship

here is even more significant than in *Valve* because CSC sought and obtained indemnification from the prior petitioners. *Supra*, §V.A; EX2004, 45:6-16.

Petitioner's cursory discussion of *General Plastic* does not address the relevant considerations and misrepresents the facts. CSC states it "is a different petitioner than the petitioner in" the prior proceeding, which ignores the Board's precedential decision explaining that factor 1 also considers the relationship between different petitioners. *Valve*, 9. CSC alleges that it "was not involved in any prior suit" involving the prior petitioners, which is both irrelevant in view of *Valve* and untrue because CSC was deposed in March 2021 as part of the litigation between PayRange and the prior petitioners. EX2001, ¶21. CSC also alleges that it "has no significant relationship with the prior petitioner" (Pet., 12), but as previously explained the evidence shows otherwise. *Supra*, §V.A.

Accordingly, Factor 1 weighs against institution.

Factor 2 favors denial because CSC knew or should have known about each asserted reference when the first petition was filed. All four asserted references are U.S. patent documents readily obtainable using standard searching tools. As in *General Plastic*, CSC does not allege that it was unaware of these references when the previous petition was filed or that they would not have been identified by a reasonably diligent search. *See* Pet., 12; *General Plastic*, 20

(“Here, the record is devoid of any explanation why Petitioner could not have found the newly asserted prior art in any earlier search(es) through the exercise of reasonable diligence.”). Accordingly, factor 2 weighs against institution.

Factor 3 favors denial because CSC, at a minimum, had access to PayRange’s preliminary response to the first petition and the Board’s decision denying institution of the first petition. This factor considers the unfairness and inefficiency that occurs when a petitioner has the opportunity to study a previous preliminary response and institution decision before filing a follow-on petition. *General Plastic*, 12 (“Multiple, staggered petitions challenging the same patent and same claims raise the potential for abuse.” (internal quotation omitted)). CSC indisputably had the opportunity to review the prior papers before filing its follow-on petition. The first petition was filed on May 27, 2021, and PayRange’s preliminary response was filed on September 21, 2021. *KioSoft Techs., LLC v. PayRange Inc.*, PGR2021-00084, Paper 2; *KioSoft Techs., LLC v. PayRange Inc.*, PGR2021-00084, Paper 6 (“Prior POPR”). The Board issued its decision denying institution on December 16, 2021, and that decision discussed, among other things, deficiencies of three prior-art grounds. *KioSoft Techs., LLC v. PayRange Inc.*, PGR2021-00084, Paper 9 (“Prior Institution Decision”), 25-28. CSC therefore had

substantial time to study the previous papers and use them as a roadmap for its follow-on petition. Accordingly, factor 3 weighs against institution.

Factors 4 (delay in filing petition) and 5 (justification for delay) favor denial. CSC filed this petition over two years after the filing of the previous petition, which is far longer than the five-month delay in *Valve* that the Board found weighed against institution. *Valve*, 14. Nor does the distinction between the parties excuse this delay, particularly given their relationship. *Id.* (“As a licensor of technology incorporated in the accused products, [the current petitioner’s] interests are aligned closely with [the prior petitioner’s] interests, and [the current petitioner] could have filed its Petition at or around the same time as [the prior petitioner].”); *supra*, §V.A (prior petitioner’s technology incorporated into accused products). CSC does not discuss factors 4 or 5, nor does it attempt to justify its delay. Accordingly, factors 4 and 5 both weigh against institution.

Factors 6 and 7 favor denial. These factors address efficiency concerns, including the Board’s finite resources and the requirement of reaching a final determination within one year. *Valve*, 15. As the Board recognized in *Valve*, “having multiple petitions challenging the same patent, especially when not filed at or around the same time as in this case, is inefficient and tends to waste resources.”

Id. Here again, CSC does not discuss these factors. Accordingly, factors 6 and 7 both weigh against institution.

All seven *General Plastic* factors thus weigh against institution.

Accordingly, even if the Board does not find the current record sufficient to determine that KioSoft is an unnamed real party in interest, the Board should exercise its discretion under §314(a) to deny institution.

VII. Ground 1 Fails

While the Board need not reach the substance of Petitioner’s grounds given the multiple bases for denial discussed above, the grounds fail on their own terms. Ground 1 challenges claims 1-2, 5, 7-8, 11, 13-14, 17, and 19-20 as allegedly obvious over Laaroussi, LeMay, and Sugimoto. Claims 1, 7, 13, and 19 are independent, though the petition’s discussion of claims 7, 13, and 19 relies mostly on citations to corresponding limitations of claim 1. Pet., 60-64 (relying entirely on cross-citations for claims 7 and 13), 65-68 (relying primarily on cross-citations for claim 19).

As explained below, the petition’s analysis of the independent claims falls short in multiple ways. First, the petition fails to show that the references teach a first interface module configured to output one or more electrical pulses “emulating an analog signal generated by the coin receiving switch” as recited in

element 1(c) and the corresponding the limitations of claims 7 and 13. Second, the petition fails to show that the references teach storing, in the memory of the payment module, “a number of the electrical pulses that must be received by the control unit” as recited in element 1(e) and the corresponding limitations of claims 7, 13, and 19. Third, the petition fails to prove a reason to combine the references to arrive at the claimed inventions. The discussion of the dependent claims does not remedy any of these deficiencies. Petitioner thus fails to meet its burden of proving that any challenged claim was obvious.

A. The Petition Fails to Show that the References Teach the Recited One or More Electrical Pulses “Emulating an Analog Signal Generated by the Coin Receiving Switch”

Element 1(c) recites, among other requirements, a first interface module configured to output one or more electrical pulses “emulating an analog signal generated by the coin receiving switch ... in response to insertion of a single coin of a predetermined type.” Elements 13(a), and 13(f) include analogous requirements, and the petition relies on cross-citations to its flawed discussion of element 1(c) for those limitations. Pet., 60, 62-63. Petitioner relies on Laaroussi as allegedly disclosing a first interface module outputting pulses that emulate an analog signal from a coin-receiving module. *Id.*, 38. Petitioner further argues that a person of ordinary skill in the art (“POSITA”) would have incorporated

Sugimoto’s coin changer—including a coin switch that supposedly generates an analog signal—into Laaroussi. *Id.*, 41-43. As explained below, however, the petition fails to provide meaningful analysis or evidence showing that the references teach pulses emulating the recited “analog” signal. Regardless, even if the petition had shown that the references teach an analog signal generally, it fails to prove that the combination satisfies the claim as a whole because the combination Petitioner proposes facially lacks pulses emulating a signal “generated by the coin receiving switch.”

1. The Petition’s Conclusory Analysis of the References Is Legally and Factually Deficient

The petition alleges that Laaroussi’s signals and Sugimoto’s coin-detection pulses are analog signals, but it offers no substantive analysis to prove that assertion. The only evidence cited in support of these assertions is entitled to little or no weight under Board precedent because it is conclusory, uncorroborated, and copies the petition’s deficient analysis essentially verbatim. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (precedential).

First, the petition’s circular and conclusory analysis is facially insufficient to prove its assertion that Laaroussi’s signals emulate an “analog” signal. *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006) (proving obviousness requires “articulated reasoning with some rational underpinning”). Petitioner argues that Laaroussi’s

currency media reader hub (“CMRH”) emulates a coin receiving module and contains a communication board module/port (the purported “first interface module”) that outputs electrical pulses. *Id.*, 36-38 (citing, *inter alia*, EX1004, ¶58). Petitioner then argues that:

[a] POSITA would understand these signals corresponding to the amount of money received to be “analog signal[s] generated by the coin receiving switch of the offline payment-operated machine in response to insertion of a single coin of a predetermined type,” at least because the pulses generated by actuation of the coin switch are analog pulses, and each analog pulse pertains to a coin of a particular denomination.

Id., 38 (citing EX1003, ¶96). But the circular argument that Laaroussi’s signals are analog signals “because the pulses generated by actuation of the coin switch are analog pulses” assumes without proving that the generated pulses are analog. Pet., 38. The second supposed reason—that “each analog pulse pertains to a coin of a particular denomination”—similarly fails to explain why the pulse is supposedly analog. *Id.* These circular, conclusory assertions are facially insufficient to prove obviousness.

Even if the Board treats Petitioner’s conclusory assertion as a veiled inherency argument, it still fails as a matter of law. “Inherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may

result from a given set of circumstances is not sufficient.” *Therasense, Inc. v. Becton, Dickinson and Co.*, 593 F. 3d 1325, 1332 (Fed. Cir. 2010) (internal quotation marks omitted). Yet Petitioner offers no argument or evidence that Laaroussi’s pulses emulate an *analog* signal as opposed to a *digital* signal. Pet., 38 (citing EX1003, ¶96); *see also* EX2007 (“The characteristics, such as an amplitude or frequency, of an analog signal vary in a continuous and infinitely variable manner, while a digital signal has a range that is divided into a finite number of discrete steps.” (emphasis omitted)). Petitioner’s conclusory assertion is therefore facially deficient even if treated as an inherency theory.

The carbon-copy testimony of Petitioner’s declarant is of no help. In the Board’s precedential *Xerox* decision, the Board explained that the petition lacked sufficient support for assertions that an aspect of a reference would “require” or “includ[e]” certain limitations because the cited testimony “merely repeats, *verbatim*, the conclusory assertion for which it is offered to support.” *Xerox*, Paper 9 at 15; *see also id.*, 16 (“Again, however, [the declarant] offers only a verbatim restatement of the assertion being supported, without any supporting evidence or technical reasoning.”); 37 C.F.R. §42.65(a) (expert testimony that does not disclose underlying facts is entitled to little or no weight). The Director affirmed that decision, explaining:

The declaration does not provide any technical detail, explanation, or statements supporting *why* the expert determines that the feature in question was required or would have been obvious based on the prior art disclosure. *See* Ex. 1003 ¶54. Instead, the declaration copies, word-for-word, Petitioner’s conclusory assertions. *Compare id.*, with Pet. 28–29. The declaration sets forth Petitioner’s conclusory assertions as though they are facts, rather than setting forth facts and evidence in support of Petitioner’s assertions. Accordingly, I agree with the Board’s explanation that “the cited declaration testimony is conclusory and unsupported, adds little to the conclusory assertion for which it is offered to support, and is entitled to little weight” under 37 C.F.R. §42.65(a).

Xerox, IPR2022-00624, Paper 9 at 5.

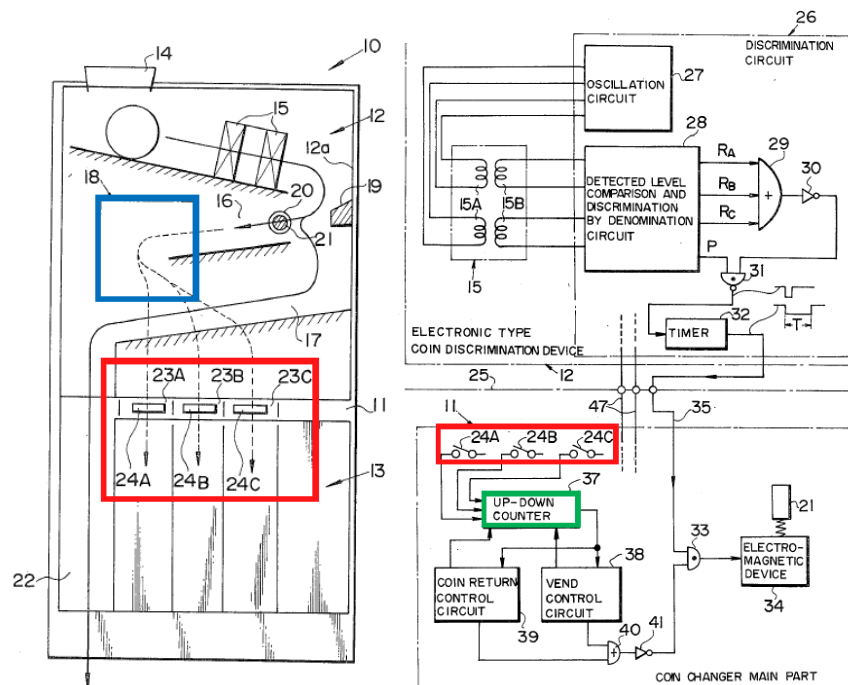
Petitioner relies on the same type of facially deficient testimony here. As in *Xerox*, the relevant testimony addressing Laaroussi’s supposedly analog signal is a verbatim copy of the petition’s circular, conclusory argument that provides no additional evidence or reasoning. *Compare* Pet., 38, with EX1003, ¶96. The cited testimony is therefore entitled to little or no weight, leaving the petition’s conclusory assertion devoid of meaningful evidentiary support.

The petition’s discussion of Sugimoto for purposes of the underlying “analog signal generated by the coin receiving switch” similarly fails to provide any substantive analysis and relies on unsupported, copy-paste testimony.

Petitioner quotes Sugimoto's statement that a coin switch "is actuated in response to passing of each coin and produces a coin detection pulse corresponding to weight of the coin of each denomination (i.e., amount of the coin)" and then asserts without any explanation that a POSITA would understand Sugimoto's process "to involve" the recited analog signal. EX1005, 4:13-33; Pet., 41. This conclusory assertion facially lacks "articulated reasoning with some rational underpinning" that is required to prove obviousness. *In re Kahn*, 441 F. 3d at 988. It also fails as a matter of law if treated as a veiled inherency argument since it does not even attempt to explain why the cited pulse is analog rather than digital. *Therasense*, 593 F. 3d at 1332.

Petitioner's unexplained quotation of Sugimoto is not a substitute for analysis, but in any event Petitioner appears to misread the reference. As noted above, Petitioner quotes Sugimoto's statement that the coin switches produce coin-detection pulses "corresponding to the weight of the coin of each denomination." EX1005, 4:13-33; Pet., 41. While Petitioner does not explain how this quote relates to the recited "analog" signal, to the extent that Petitioner is suggesting that the cited pulse conveys the specific weight of the coin, Petitioner is incorrect. Sugimoto explains that each coin is sorted before it reaches the respective passage containing the coin switch. *See* EX1005, 4:21-29; *see also id.*, 7:43-47 ("Coins

having been sorted out by denomination by the mechanical type coin discrimination device actuate the coin switches 24A, 24B and 24C provided in the coin passages 23A, 23B and 23C of the main part 11 to produce the coin detection pulses.”); *see also* Pet., 19 (“The coin changer first sorts out coins by denomination, and then transfers the coins to the main part of the coin changer through passages 23A, 23B, and 23C.”). When each coin is inserted, it is sorted into the appropriate passage, and its weight triggers the corresponding switch, which outputs a pulse to an up-down counter that tracks the value of the deposited coins. *Id.*, 4:21-29, 5:35-40. This arrangement can be seen in Figures 1-2, shown below with annotations identifying the coin-sorting mechanism (blue), the coin passages/switches (red), and up-down counter (green):



Id., Figs. 1 (left), 2 (right). The pulse thus does not convey the weight of the coin; rather, the coin’s weight merely triggers the sending of a pulse to a simple up-down counter. Petitioner offers no explanation why Sugimoto’s pulses, generated by simple switches triggered by pre-sorted coins, would involve an “analog signal generated by the coin receiving switch ... in response to insertion of a single coin of a predetermined type,” as recited.

The cited testimony is also entitled to little or no weight for the same reasons discussed above with respect to Laaroussi. The only evidence Petitioner cites in support of its assertion that a POSITA would understand Sugimoto’s process to “involve” the recited analog signal is unsupported testimony that essentially just repeats the petition’s conclusory assertion. *Compare* Pet., 41, *with* EX1003, ¶101.⁴

⁴ The only additional statements in paragraph 101 are the circular assertion that Sugimoto’s pulse involves the recited analog signal “because the pulses generated by actuation of the coin switch are analog pulses”—the same circular assertion discussed above with respect to Laaroussi (Pet., 38; EX1003, ¶96)—and the assertion that “the ‘608 patent describes a nearly identical detection process where an electric pulse is detected based upon the passing of a coin of a predetermined

The cited testimony is therefore entitled to little or no weight. *Xerox*, Paper 9 at 15.

Accordingly, the petition's circular and conclusory assertions facially lack sufficient analysis and evidentiary support. Petitioner therefore fails to show that the references teach the recited analog signal, let alone teach a first interface module configured to output one or more electrical pulses emulating the recited analog signal.

2. The Proposed Combination Facially Lacks Pulses “Emulating” the Recited Signal

Even if Petitioner had proven that Laaroussi or Sugimoto teaches the recited analog signal, Petitioner still fails to show that a POSITA would have combined the teachings of the references to arrive at this limitation. *KSR Int'l Co. v. Teleflex*

value through a coin switch,” which facially does not address the supposedly “analog” nature of Sugimoto's pulse. EX1003, ¶101 (citing EX1005, 39:57-40:6). Petitioner also cites paragraph 100, but this testimony does not address the “analog” requirement, and is mostly a verbatim repetition of the petition's previous analysis-free description of Sugimoto's components. *Compare* Pet., 41, with EX1003, ¶100.

Inc., 550 U.S. 398, 418-19 (2007) (obviousness not shown “merely by demonstrating that each of [a claim’s] elements was, independently, known in the prior art”). In particular, even if Petitioner had proven sufficient reasons to combine—and it did not (*infra*, §VII.C)—Petitioner never explains how the proposed modification in view of Sugimoto would result in pulses “emulating” a signal “generated by the coin receiving switch.”

Petitioner proposes modifying Laaroussi to include Sugimoto’s coin changer—including the coin switches, up-down counter, and vend control circuit—but fails to explain why a POSITA would have emulated the alleged analog signal generated by the coin switches within Sugimoto’s coin changer. Petitioner argues that Laaroussi’s CMRH sits between a coins receiving module and the gaming system “to emulate the transaction signals typically produced by the coins receiving module and to pass those signals ultimately to the controller.” Pet., 39-40. Petitioner then argues that Sugimoto’s coin switches—which are part of Sugimoto’s coin changer along with the up-down counter and vend control circuit—produce the recited “analog signal generated by the coin receiving switch.” *See id.*, 41. But in the proposed combination, Petitioner does not argue that a POSITA would have applied Sugimoto’s teachings such that the pulse produced by Sugimoto’s coin switch is emulated by Laaroussi’s CMRH. *Id.*, 41-

43. Rather, Petitioner proposes using Sugimoto’s entire coin changer, including both the coin switches and the up-down counter. *Id.*, 43 (POSITA would “incorporate the coin changer in Sugimoto that includes the coin switches and vend control circuit to the coins receiving module of Laaroussi”); *see also id.*, 47 (alleging POSITA would include up-down counter). But Petitioner’s own description of Sugimoto’s coin changer acknowledges that the pulses generated by the coin switches are directly communicated to the up-down counter. *Pet.*, 40-42. Petitioner does not even attempt to show that a POSITA had reason to emulate the pulses generated by Sugimoto’s coin switch (i.e., the alleged “analog signal generated by the coin receiving switch”).

Accordingly, the proposed combination facially fails to satisfy the claims as a whole for multiple reasons. Each of these deficiencies is fatal to Petitioner’s challenges to independent claims 1, 7, and 13—and their dependent claims—in all grounds.

B. The Petition Fails to Show that the References Teach “Storing, in the Memory of the Payment Module, a Number” of the Recited Electrical Pulses

Independent claims 1, 13, and 19 each recite a memory with one or more programs including instructions for “storing, in the memory of the payment module, a number of the electrical pulses that must be received by the control unit

to initiate an operation of the offline payment operating machine,” and independent claim 7 recites an identical “storing” step. In claims 1, 7, and 13, “the electrical pulses” are the previously recited “pulses emulating an analog signal generated by the coin receiving switch,” whereas in claim 19 “the electric pulses” are the previously recited “pulses generated by the coin receiving switch.” Petitioner points to the storage of “transactions” in Laaroussi’s CMRH and argues that, in view of Sugimoto’s disclosure of pulses associated with its coin switches, up-down counter, and vend control circuit, a POSITA would have modified Laaroussi “to include the up-down electrical pulse counter of Sugimoto such that the [CMRH’s] memory module ... stores the electrical pulses generated by Sugimoto’s coin switches.” Pet., 45-47; *see also id.*, 60, 63, 67 (relying on discussion of element 1(e) for corresponding limitations of claims 7, 13, and 19).

As explained below, this argument fails for multiple reasons. First, the petition’s conclusory assertion that Laaroussi’s storage of “transactions” involves storing “all communications from peripheral components” is illogical and factually unsupported. Second, the petition’s discussion of how the proposed modification in view of Sugimoto allegedly satisfies this limitation ignores the plain language of the claims and is not commensurate with the alleged reasons to combine the

references. Third, Petitioner ignores additional requirements of independent claims 1, 7, and 13.

1. Petitioner Conflates Laaroussi's Storage of "Transactions" with Storing a Number of Electrical Pulses

The foundation of Petitioner's argument against the "storing" limitations is its contention that Laaroussi's storage of "transactions" involves storing "all communications from peripheral components." *See* Pet., 45-47. This contention is legally, logically, and factually flawed.

First, Petitioner's assertion that a POSITA would understand that Laaroussi's CMRH "may" store "all communications from peripheral components like the coins receiving module" is insufficient as a matter of law. *Id.*, 46. Even if Petitioner had proven this assertion, at best it is a legally deficient argument that storing such communications was possible. *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (obviousness concerns whether a POSITA not simply "could" have, but "would" have arrived at the claimed invention).

Regardless, Petitioner fails to explain its assertion that Laaroussi's storage of "transactions" may involve storage of "all communications from peripheral components." Pet., 46 (citing EX1003, ¶112). In the preceding discussion, Petitioner merely argues that Laaroussi's CMRH is adapted to "store transactions" in memory. *Id.*, 45 (emphasis and internal quotations omitted) (citing EX1004,

¶26); *see also* Pet., 45 (“When the network is offline, ‘all transactions between the [user’s] card 208 and the gaming machine 180 are stored in the memory module 220 of the [CMRH] 200.’” (quoting EX1004, ¶67)). Petitioner offers no justification for its nonsensical leap to a conclusion that Laaroussi’s storage of transactions somehow involves storing every communication from peripheral components.

Petitioner’s conclusory assertion is also unsubstantiated by Laaroussi and the cited testimony. Laaroussi does not support Petitioner’s assertion since it teaches that it is storing higher-level transaction data simply for accounting purposes, not storing a number of individual electrical pulses emitted by its subsidiary components. *See* EX1004, ¶66 (CMRH “witnesses when the gaming machine 180 puts money on the player’s card” and “money transfer between the player’s card 208 and the gaming machine” to “account[] the remaining amount of money on the card 208 and send[] the information to the database 22”). The cited testimony is of no help since, like the testimony discussed above in §VII.A, it is essentially just a carbon copy of the petition’s conclusory, illogical assertion. *Compare* EX1003, ¶112, *with* Pet., 46; *Xerox*, Paper 9 at 15 (declarant’s conclusory repetition of petition’s argument entitled to little weight).

Petitioner's similar assertion that the CMRH stores "the electrical pulses for passing to the gaming machine" is equally illogical, conclusory, and unsubstantiated. Petitioner argues that the CMRH emulates the communications of the coins receiving module, including pulse string communications, and that:

[s]ince the CMRH stores all such transaction information, a POSITA would understand that when emulating the coins receiving module the CMRH stores the electrical pulses for passing to the gaming machine for operation in an offline environment.

Pet., 46 (citing EX1004, ¶67; EX1003, ¶114). Here again, Petitioner conflates Laaroussi's "transaction information" with the pulse-string communications of its coins receiving module. In any event, Petitioner does not show that the CMRH stores "the communications of the coins receiving module, including pulse string communications" or explain why the storage of transaction information implies storage of such electrical pulses. *See* Pet., 45-46. Moreover, the cited testimony is once again devoid of any analysis showing that storing transaction data suggests storing the recited electrical pulses. *See* EX1003, ¶114 (alleging Laaroussi renders limitation obvious because its CMRH "witnesses every transaction from the virtual currency holding media/card, stores that information in memory, and passes that information to the gaming machine for operation in multiple possible communication formats, including electrical pulses").

Accordingly, the petition's argument is rooted in a conclusory, illogical, unsubstantiated reading of Laaroussi.

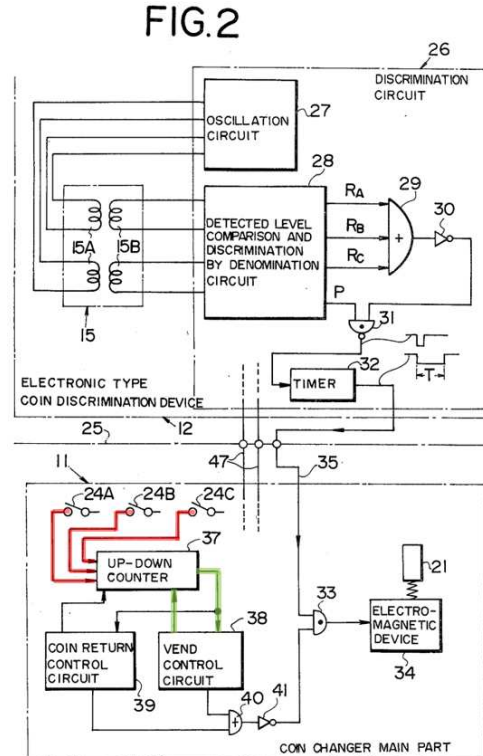
2. Petitioner Fails to Explain How the Proposed Modification in view of Sugimoto Satisfies the Claims

Petitioner's conclusory analysis of the proposed modification in view of Sugimoto fares no better. For the recited storing of "a number of the electrical pulses that must be received by the control unit to initiate an operation of the ... machine," Petitioner argues that a POSITA would have stored "the electrical pulses generated by Sugimoto's coin switches." Pet., 47. This argument fails for multiple reasons.

First, Petitioner's brief, conclusory analysis is disconnected from the plain language of the claims, which recite storing "a number of the electrical pulses." Despite initially arguing that a POSITA would have stored "the number" of electrical pulses produced by Sugimoto's coin switches (*id.*, 46), Petitioner subsequently argues only that a POSITA would have modified Laaroussi to store "the electrical pulses generated by Sugimoto's coin switches," not "a number" of such pulses. Pet., 47. The petition thus fails to show that the proposed combination of references satisfies the plain language of the claims.

Even if the claims required simply "stor[ing] the electrical pulses" generated by the coin receiving switch (*id.*, 47), as opposed to the number of such pulses,

Petitioner never shows that the pulses generated by Sugimoto's coin switches are "received by the control unit to initiate an operation of the ... machine." While Petitioner argues that the pulses generated by Sugimoto's coin switches are applied to an up-down counter and "passed" to the vend control circuit, which generates a vend possible signal once it has "received enough electrical pulses" (*Id.*, 46-47), Sugimoto teaches instead that the vend control circuit is simply comparing the vend price to the counter value, not receiving the pulses generated by the coin switches. EX1005, 5:31-66. This is confirmed by Figure 2, shown below with coin-in signals annotated red and the vend control circuit's connections to the up-down counter annotated green:



Id., Fig. 2 (annotated). Petitioner’s argument that Sugimoto’s vend control circuit receives the pulses generated by the coin switches is thus facially contradicted by the reference.

Moreover, Petitioner never identifies a reason to include the feature it relies on as allegedly satisfying this limitation. Petitioner argues that the proposed combination satisfies this limitation because a POSITA supposedly would have modified Laaroussi’s CMRH “to include the up-down electrical pulse count of Sugimoto.” Pet., 47. Yet Petitioner’s alleged reasons to combine do not address the proposed inclusion of that component. *Id.*, 24-26. While this oversight is also a facial deficiency of Petitioner’s motivation argument (*infra*, §VII.C.2), even if Petitioner had proven a sufficient motivation to combine the references generally, it cannot prove that the references teach this limitation when it never identifies a reason to apply the relied-upon teachings of Sugimoto. *See Axonics, Inc. v. Medtronic, Inc.*, 73 F.4th 950, 957 (Fed. Cir. 2023) (must demonstrate reason to “combine the teachings of the prior art references to achieve the claimed invention”).

Accordingly, the petition fails to prove that the proposed combination of references satisfies the “storing” limitation of independent claims 1, 7, 13, and 19, which is fatal to Petitioner’s challenges to all claims in all grounds.

3. Petitioner Fails to Show that the References Teach Storing a Number of Electrical Pulses “Emulating” the Analog Signal

The petition’s flawed discussion of the “storing” limitations has additional facial deficiencies with respect to claims 1-18. Given the antecedent basis in the claims, storing a number of “the” electrical pulses refers to the electrical pulses “emulating an analog signal generated by the coin receiving switch” in independent claims 1, 7, and 13. Petitioner’s discussion of element 1(e) ignores this aspect of the claims, alleging only that a POSITA would have “store[d] the electrical pulses generated by Sugimoto’s coin switches.” Pet., 46-47. The petition thus does not even allege that the proposed combination teaches storing the number of the electrical pulses *emulating* the analog signal generated by the coin receiving switch, as required by independent claims 1, 7, and 13.

Accordingly, even if Petitioner had shown that the references teach storing a number of electrical pulses generally—and it did not—it still fails to show the references satisfy claims 1, 7, and 13 as a whole, which is fatal to Petitioner’s challenges to claims 1-18.

C. The Stated Motivations to Combine Are Unsupported and Contradicted by the References

The petition fails to show that a POSITA had reason combine the references as proposed. Petitioner separately argues that there is a motivation to combine

Laaroussi with Lemay (Pet., 20-23) and Sugimoto (*id.*, 24-26). A deficiency in either motivation argument is fatal, and both fall short.

1. Petitioner Fails to Prove that there is a Reason to Combine Laaroussi and LeMay as Proposed

Petitioner's motivation argument with respect to LeMay is flawed for at least two reasons. First, the petition argues that a POSITA would have made the combination to allow Laaroussi to obtain the benefits of virtual-currency transactions (i.e., reduced labor and material costs), but Petitioner's own discussion of Laaroussi shows that it already has this functionality. Second, Petitioner engages in impermissible hindsight by relying on the '608 patent in an attempt to provide the missing motivation.

With respect to the first reason why Petitioner's argument is flawed, Petitioner fails to demonstrate that a POSITA would have viewed Laaroussi as having the labor and material cost problems supposedly motivating the proposed combination with LeMay. Petitioner argues that LeMay solves "known issues with accounting labor and material costs from using physical currency in electronic gaming machines" by facilitating virtual-currency transactions and that a POSITA would have been motivated to modify Laaroussi to obtain this reduction in labor/costs. Pet., 21-22. But Petitioner elsewhere acknowledges that Laaroussi already has this functionality. For example, Petitioner notes that Laaroussi retrofits

currency-accepting gaming machines to communicate with “virtual currency holding media” such as RFID cards. Pet., 14 (citing EX1004, Abstract). Petitioner also acknowledges that Laaroussi’s CMRH “is adapted for cashless transactions with ‘virtual currency holding media suitable to carry virtual money,’ such as an ‘RFID device’ or a ‘chip-equipped card.’” Pet., 15 (quoting EX1004, ¶61).

Petitioner cannot manufacture a reason to modify Laaroussi by alleging benefits of functionality that Petitioner acknowledges is already present in Laaroussi. *Stryker Corp. v. Karl Storz Endoscopy America, Inc.*, IPR2015-00764, Paper 13 at 13 (denying institution where “[w]e fail to see, and Petitioner does not adequately explain, why it would be obvious to add a translator to redundantly perform the function that Petitioner maintains is performed by the interconnect devices and network computer located within the surgical network.”); *TRW Automotive U.S. LLC v. Magna Electronics, Inc.*, IPR2015-00972, Paper 9 at 11 (denying institution where “Petitioner argues that the housing in [the second reference] would advantageously seal the components of the camera to prevent intrusion of elements from the environment” but “Petitioner’s argument is not persuasive ... because [the first reference] teaches that the camera disclosed therein already is protected from such intrusions.”); *Ex parte Allen*, Appeal 2018-008208, U.S. App. No. 14/712,101 at 5-6 (P.T.A.B. July 1, 2020) (reversing rejection where motivation to combine

was based on alleged benefit of using second reference's pliant material to reduce friction, but first reference "already discloses an effective supply/quantity of lubricant" for same function).

Unable to provide an independent reason to combine Laaroussi and LeMay, Petitioner turns to the '608 patent itself. Pet., 22-23. Citing the '608 patent, Petitioner contends that "there was a large development effort around bringing mobile payment to the retail sector in an effort to provide options to the user and to increase convenience, and mobile payment was a logical extension of use for Internet-connected mobile devices." *Id.* (citing EX1001, 1:64-2:2). But this reliance on the challenged patent to provide a reason to combine is textbook hindsight. *In re Rouffet*, 149 F.3d at 1357 (patent challenger must show POSITA had reason to select elements from references "with no knowledge of the claimed invention").

Without the benefit of hindsight, Petitioner fails to substantiate its assertion regarding this "large development effort." Pet., 22-23. Petitioner alleges that LeMay describes this large development effort, but the cited passages do not describe such an effort; they simply describe the functionality that Petitioner acknowledges was already present in Laaroussi, as discussed above. Pet., 22-23 (citing EX1006, Abstract, 2:12-23, 31:39-59, 32:7-18). The cited testimony is also

of no use because it once again repeats the petition’s flawed argument almost verbatim. *Compare* Pet., 22-23, *with* EX1003, ¶54; *Xerox*, Paper 9 at 15 (such testimony entitled to little or no weight).

The petition thus fails to demonstrate a reason to combine Laaroussi and LeMay.

2. Petitioner Fails to Prove that there is a Reason to Combine Laaroussi and Sugimoto as Proposed

Petitioner’s motivation argument for Sugimoto is also deficient because the petition does not identify a reason to apply the relied-upon teachings of Sugimoto.

Motivation analysis must be commensurate in scope with the relied-upon teachings of the references. *See Axonics*, 73 F.4th 950, 957 (Fed. Cir. 2023) (motivation inquiry concerns motivation to combine “*the teachings of the prior art references* to achieve the claimed invention” (emphasis added)). As discussed above in §§VII.A-B, in attempting to map the “analog signal” and “storing” limitations to the references, Petitioner relies not only on Sugimoto’s coin switches, but also on its vend control circuit and up-down counter. Pet., 40-43 (arguing that a POSITA would “incorporate the coin changer in Sugimoto that includes the coin switches *and vend control circuit* to the coins receiving module of Laaroussi” (emphasis added)), 46-47 (alleging POSITA would modify Laaroussi “to include the up-down electrical pulse counter of Sugimoto”). Yet the

petition's argument for why a POSITA supposedly would have combined Laaroussi and Sugimoto exclusively addresses Sugimoto's coin switches. *Id.*, 24-26. Petitioner cannot meet its burden of proving obviousness when the petition's alleged reason to combine the references does not address the applied teachings.

Accordingly, the petition's failure to identify any reason for a POSITA to apply the relied-upon teachings of Sugimoto leaves Petitioner unable to meet its burden of proving obviousness.

VIII. Ground 2 Fails

Ground 2 relies on the flawed analysis of Ground 1 without remedying any of the deficiencies discussed above. This ground adds Okuniewicz, alleging that it teaches additional limitations of dependent claims 4, 6, 10, 12, 16, and 18. Pet., 74-79. This analysis does not address any of the previously discussed deficiencies with respect to the independent claims, nor does the additional motivation argument for Okuniewicz fix the flawed motivation analysis of Ground 1. Ground 2 thus fails for at least the same reasons as Ground 1.

IX. Conclusion

Accordingly, for at least the reasons set forth above, institution of inter partes review should be denied.

Respectfully submitted

Dated: October 26, 2023

/Matthew A. Argenti/

Matthew A. Argenti, Lead Counsel

Reg. No. 61,836

CERTIFICATE OF COMPLIANCE

Pursuant to 37 §42.24(d), the undersigned certifies that this paper contains no more than 14,000 words, not including the portions of the paper exempted by §42.24(b). According to the word-processing system used to prepare this paper, the paper contains 8,558 words.

Respectfully submitted,

Dated: October 26, 2023

/Matthew A. Argenti/
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X. Appendix

EXHIBIT NO.	DESCRIPTION
2001	Amended CSC Complaint, <i>PayRange Inc. v. CSC Serviceworks, Inc.</i> , No. 1:23-cv-00278-MN (D. Del. May 19, 2023), Doc. No. 12.
2002	Scheduling Order, <i>PayRange Inc. v. CSC Serviceworks, Inc.</i> , No. 1:23-cv-00278 (D. Del. Jul. 27, 2023), Doc. No. 24.
2003	Amended KioSoft Complaint, <i>PayRange Inc. v. KioSoft Techs., LLC</i> , No. 1:20-cv-24342 (S.D. Fla. Jan. 15, 2021), Doc. No. 17.
2004	Transcript of Rule 11 Hearing, <i>PayRange, Inc. v. Kiosoft Techs., LLC</i> , No. 1:20-cv-20970 (S.D. Fla. July 27, 2021), Doc. No. 250.
2005	eBay Listing of KioSoft CSC Ultra One V2 POS Payment Terminal, EBAY, https://www.ebay.com/itm/185234504103 [https://we.archive.org/web/20231010224416/https://www.ebay.com/itm/185234504103].
2006	KioSoft and TechTrex Waiver of Service, <i>PayRange Inc. v. KioSoft Techs., LLC</i> , No. 1:20-cv-24342 (S.D. Fla. Jan. 11, 2021), Doc. No. 16.
2007	<i>Analog</i> , STEVEN M. KAPLAN, WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY (2004).

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Patent Owner's Preliminary Response and accompanying Exhibits 2001-2007 were served on October 26, 2023, on the Petitioner at the electronic correspondence addresses of the Petitioner as follows:

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