

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CSC SERVICEWORKS, INC.,
Petitioner,

v.

PAYRANGE INC.,
Patent Owner.

Case No. IPR2023-01187
Patent 10,438,208

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

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I. Introduction

The Board should deny institution of *inter partes* review (IPR) of claims 1-20 of U.S. Patent No. 10,438,208 (“the ’208 patent”) because Petitioner CSC ServiceWorks, Inc. (“CSC” or “Petitioner”) fails to demonstrate a reasonable likelihood of prevailing.

As a preliminary matter, the petition fails to identify all real parties in interest (RPI) as required by statute. 35 U.S.C. §312. The petition identifies only a single RPI, CSC, while omitting at least two other parties with whom CSC has a significant relationship, both of whom benefit from this IPR. Under Federal Circuit precedent, the petition is deficient for failing to name them as RPI.

Beyond that, the substantive prior art challenge is also deficient. Ground 1 challenges independent claims 1, 12, and 17 as allegedly being obvious over Freeny and Kou. Pet., 11. Ground 2 builds upon Ground 1 to challenge other claims but relies on the previous analysis of claims 1, 12, and 17. However, the petition’s analysis of the independent claims contains multiple deficiencies that are fatal to both grounds.

Before even getting to the flawed analysis of particular limitations, Petitioner’s failure to acknowledge or explain its reliance on multiple distinct embodiments in Freeny is fatal to the petition. *See In re Stepan Co.*, 868 F.3d

1342, 1346 n.1 (Fed. Cir. 2017) (reason to combine required even when “combining multiple embodiments from a single reference”). While Petitioner presents the combination simply as a modification of Freeny in view of Kou (Pet., 17-18), Petitioner pivots between several distinct embodiments in Freeny throughout Ground 1. The petition fails even to acknowledge that these are distinct embodiments, let alone prove sufficient reason to combine them.

In addition to this pervasive legal deficiency, the petition’s conclusory, unsubstantiated, and facially incomplete analysis of the independent claims fails to show that the references teach numerous limitations. For example, the petition fails to show that the references—even if combined as proposed—teach element 1(a), at least two different aspects of element 1(c), at least three different aspects of element 1(e), and element 1(g). The petition relies on its previous discussion of claim 1 for corresponding limitations in independent claims 12 and 17, so these myriad deficiencies are fatal to Petitioner’s challenges for all claims.

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 '208 patent in October 2019 for this breakthrough.

On March 15, 2023, PayRange sued Petitioner in United States District Court for infringing the '208 patent and U.S. Patent Nos. 8,856,045, 10,891,608, and 11,481,772, and filed an amended complaint for infringement of the same patents on May 19, 2023. EX2001, ¶25. The court's 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 '208 Patent

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

A method, comprising:
at a mobile device with one or more processors, memory, and a communications unit, and *prior to user selection of any items or services* provided by an automatic retail machine:

notifying an electronic payment device coupled with the automatic retail machine that the mobile device has entered an authorization zone associated with the automated retail machine:

in response to notifying the electronic payment device that the mobile device has entered the authorization zone, receiving from the electronic payment device, via the communications unit, *a request to preemptively obtain authorization to make funds available for cashless transactions with the automatic retail machine*;

sending the request to a server via the communications unit;
in response to sending the request to the server, receiving, from the server, an authorization grant of an amount of funds *corresponding to a maximum amount associated with an item or service provided by the automatic retail machine, wherein the authorization grant expires upon satisfaction of one or more predetermined criteria*;

detecting, by an application executing on the mobile device, a trigger condition to initiate a cashless transaction with the automatic retail machine; and

in response to detecting the trigger condition and in accordance with a determination that the one or more predetermined criteria have not been satisfied, sending to the electronic payment device the authorization grant via the communications unit, enabling a user to select an item or service provided by the automatic retail machine for less than or equal to the amount of funds.

Independent claim 12 is similarly directed to a system comprising an electronic payment device and a mobile device, and independent claim 17 is directed to a non-transitory computer-readable storage medium storing one or more programs.

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). The petition purports to apply the plain and ordinary meaning of terms of the challenged claims, and declines to provide any specific constructions. Pet., 7. Despite this, and as discussed below, the petition fails to account for all limitations at issue. As such, no constructions are necessary to deny institution because the petition facially fails to show that the references satisfy the plain language of the claims.

V. The Petition Fails to Name All Real Parties in Interest

By statute, petitions may be considered “only if” all real parties in interest (RPIs) are identified. 35 U.S.C. §312. Here, the petition fails to identify at least two RPIs: KioSoft Technologies, LLC (“KioSoft”) and TechTrex, Inc. (“TechTrex”). *See* Pet., 76 (identifying only CSC as the RPI).

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 one purpose of the RPI inquiry is “ensure that third parties who have sufficiently close relationships with IPR petitioners would be bound by the outcome of instituted IPRs under § 315(e).” *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, KioSoft and TechTrex easily meet this standard.

The evidence shows that CSC has a significant relationship with KioSoft and TechTrex, both of whom directly benefit from this IPR. 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 brought one infringement action against KioSoft and TechTrex and a second against their customer, CSC. The customer-supplier relationship was noted in PayRange’s infringement complaints, and counsel for KioSoft and TechTrex 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 customer and that a CSC system was developed by KioSoft/TechTrex.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.”); EX2005 (listing of “KioSoft CSC” payment terminal). The existence of CSC’s KioSoft-based products can also be seen in online marketplaces. *E.g.*, EX2005 (showing CSC/KioSoft product). In fact, in 2021 CSC was deposed in the lawsuit brought by PayRange against KioSoft and TechTrex. EX2001, ¶21. The public record is thus replete with evidence that CSC products use technology supplied by KioSoft and TechTrex.

In addition to the undisclosed customer-supplier relationship, CSC also fails to disclose that its supplier indemnified CSC against PayRange’s infringement

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.

claims. The president of KioSoft and TechTrex 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). Given the direct customer-supplier relationship and the indemnification agreement, KioSoft and TechTrex directly benefit from this proceeding.

Beyond the customer-supplier and indemnification relationships, KioSoft and TechTrex stand to benefit from this IPR simply by virtue of being engaged in their own infringement 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 benefit from this IPR regardless of whether the '208 patent is asserted in the litigation against those parties.

Accordingly, KioSoft and TechTrex 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.

VI. Ground 1 Fails

The petition's analysis of the independent claims is critically flawed in numerous ways. As an initial matter, Petitioner relies on multiple distinct embodiments in Freeny without explaining how or why a POSITA would have combined them. The petition also fails to show that the references teach numerous

² See IPR2023-01186 (July 17, 2023), IPR2023-01188 (July 17, 2023), PGR2023-00042 (July 25, 2023), PGR2023-00045 (August 1, 2023), PGR2023-00050 (August 15, 2023), IPR2023-01449 (October 9, 2023).

limitations, including the following limitations of claim 1 (using Petitioner's labels for purposes of clarity):

- Element 1(a): all recited steps occurring “prior to user selection of any items or services.”
- Element 1(c): receiving a “request to preemptively obtain authorization to make funds available for cashless transactions at an automatic retail machine.”
- Element 1(c): receiving that request “in response to notifying the electronic payment device that the mobile device has entered the authorization zone.”
- Element 1(e): “receiving, from the server, an authorization grant of an amount of funds corresponding to a maximum amount associated with an item or service provided by the automatic retail machine.”
- Element 1(e): the authorization grant being received “in response to sending the request to the server.”
- Element 1(e): “wherein the authorization grant expires upon satisfaction of one or more predetermined criteria.”
- Element 1(g): “in response to detecting the trigger condition and in accordance with a determination that the one or more predetermined criteria have not been satisfied, sending to the electronic payment device the authorization grant via the communications unit.”

Petitioner’s challenges to independent claims 12 and 17 rely on cross-citations for similar limitations found in those claims and therefore fail for the same reasons.

A. The Petition Fails to Identify a Reason to Combine Freeny’s Distinct Embodiments

The petition improperly treats Freeny’s distinct embodiments as if they were interchangeable and fails to identify a reason to combine them. When “combining multiple embodiments from 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.” *In re Stepan Co.*, 868 F.3d at 1346 n.1. Contrary to this requirement, Petitioner “treats the various features of [the reference’s] different embodiments as if they are interchangeable with one another” and “fails to provide a sufficient rationale to combine the teachings of [the reference’s] different embodiments.” *Abiomed, Inc. v. Maquet Cardiovascular, LLC*, IPR2017-01204, Paper 9 at 9-11 (denying institution).

Freeny expressly delineates and contrasts three distinct inventions: the “Pico Pay System” (“PPS”), the “Proximity Authorization Transaction System” (“PATAS”), and the “Master Proximity Authorization System” (which includes a

“proximity authorization unit”³ or “PAU”). EX1004, 1:24-2:50 (summaries), 4:35-9:45 (PPS description), 9:47-30:44 (“Description of the Proximity Authorization Transaction System Invention”), 30:46-41:9 (“Detailed Description of the Invention Master Proximity Authorization System”). Freeny describes the PPS as providing a single pay phone or kiosk that can service multiple wireless devices simultaneously as they communicate with external systems. *E.g., id.*, 1:24-60, Fig. 1. The PATAS invention, on the other hand, involves a “legacy” unit associated with a “proximity” unit that can be triggered by signals from wireless devices, such as cellular phones, to provide a predetermined service. *E.g., id.*, 1:61-2:25, 9:60-10:51; *see also id.*, 14:48-51 (legacy activation unit refers to “a device for providing predetermined services, such as pay telephone services, checkout services, toll services, garage door opening services and the like”). Freeny contrasts this approach with the “Master Proximity Authorization System” system, whose PAU “is an *alternative* to having to pay for high power wireless communication devices and/or services, such as a cell phone or pager or hand held computer with wireless communication features....” *Id.*, 2:26-50 (emphasis added); *see also id.* (PAU “incorporates multiple low power type signaling

³ Freeny also refers to this as a “master proximity signaling unit”

capability into a low cost device specifically designed to allow all the multiple proximity services authorization devices to be incorporated into a single unit” to communicate “in a much simpler and more convenient manner”).

The petition does not allege that combining Kou with any particular embodiment is sufficient; instead, Petitioner simply treats Freeny’s distinct embodiments as interchangeable. In the section discussing the alleged reasons to combine for Ground 1, the petition exclusively discusses the general combination of the Freeny and Kou references without even acknowledging that the petition is relying on different embodiments. Pet., 17-18. The petition is similarly silent about combining Freeny’s different embodiments when attempting to map those embodiments to different aspects of the claims. *See id.*, 19-24, 26, 28-30, 38.

Having relied on distinct embodiments of Freeny without explaining how or why a POSITA would have been motivated to combine them with a reasonable expectation of success, Petitioner’s obviousness case is facially deficient. *In re Stepan Co.*, 868 F.3d at 1346 n.1; *Abiomed*, IPR2017-01204, Paper 9 at 9-11.

B. The Petition Fails to Show that the References Teach that the Recited Steps Occur “Prior to User Selection of Any Items or Services”

Even setting aside the petition’s conflation of Freeny’s distinct embodiments, the petition’s conclusory analysis of Freeny and Kou falls short.

Element 1(a) recites, among other requirements, that the subsequent claim elements (i.e., elements 1(b)-1(g)) occur at a mobile device “prior to user selection of any items or services” from an automatic retail machine. Independent claims 12 and 17 similarly recite a mobile device configured to perform steps “prior to user selection of any items or services” from the automatic retail machine, and the petition relies on cross-citations to its flawed discussion of element 1(a) for those limitations. Pet., 61, 65. Petitioner argues that this aspect of the claims is satisfied by Freeny alone or was obvious in view of Kou. *Id.*, 22-24. As explained below, however, both arguments are conclusory and fail to show that the combination teaches performing each of the subsequently recited steps prior to the selection of any items or services.

The petition’s brief discussion of Freeny is wholly conclusory. The petition alleges that Freeny describes mobile devices “activating” various machines before a transaction, including the activation of a vending machine by transmitting a “request authorization code.” Pet., 22-23 (internal quotes omitted) (citing EX1004, 6:44–54, 13:7-11, 13:22–54, 14:37–47, 31:16–42, 32:31–33, 32:50–60). But Petitioner not only conflates Freeny’s distinct embodiments without explanation (*supra*, §VI.A), it also fails to offer any explanation of how “activation” of a

machine before a transaction teaches performing each of recited steps 1(b)-1(g) “prior to user selection of any items or services.”

The disconnect between Petitioner’s conclusory argument and the claims is also apparent in Petitioner’s citation of transactions in which the user *never* selects an item or service. For example, Petitioner cites the automated activation of a gate or red/green light to speed up passage through a toll/subway station. Pet., 22 (citing EX1004, 13:22-54). Petitioner similarly cites a proximity service unit that Freeny describes as “any device which provides *a predetermined service* upon activation.” EX1004, 31:16-42 (emphasis added); Pet., 22 (citing same). Petitioner does not even attempt to explain how activating a gate or other “predetermined” service teaches performing the recited steps “prior” to user selection of any items or services.

Petitioner’s subsequent discussion of menu operation is equally conclusory. Petitioner quotes Freeny’s description of a vending machine that can be activated at a distance for services “not requiring the owner of the [PAU] to physically use the menu.” Pet., 23 (internal quotes omitted) (citing EX1004, 32:55-60). Petitioner then alleges that services requiring menu operation would include item/service selection. *Id.* Setting aside the fact that the quoted portion of Freeny describes only *not* using the menu, Petitioner’s conclusory assertion does not

attempt to explain how Freeny allegedly teaches item/service selection, how this relates to the other discussed embodiments, or how this squares with Freeny's description of vending machines providing a "predetermined" service. Pet., 23 (citing EX1003, ¶69). Petitioner's conclusory analysis is thus facially insufficient to prove obviousness.

Petitioner's assertion also fails as a veiled inherency argument since Freeny itself shows that item/service selection does not necessarily take place after the machine is activated. "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). As noted above, in the cited PAU embodiment, Freeny states that receiving the code from the PAU causes the service units to provide a "predetermined" service. *Id.*, 30:59-62. The cited testimony does not help, as the declarant essentially just repeats the petition's conclusory assertion without analysis or corroboration. EX1003, ¶69; see *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (precedential) (conclusory, uncorroborated testimony repeating petition's argument is entitled to little or no weight).

The petition’s subsequent discussion of Kou does not remedy any of the problems discussed above. Petitioner argues that, even if Freeny does not teach this limitation, it was still obvious “in view of Kou’s discussion of advance authorization of certain transactions.” Pet., 23-24. In particular, Petitioner argues that Kou’s payment service provider (“PSP”) can authorize payments to a merchant up to a pre-defined limit while the customer provides final payment authorization to the merchant. *Id.* (citing EX1005, 276). Petitioner then argues that a POSITA would have incorporated Kou’s pre-authorization technique in Freeny to reduce communication costs. Pet., 24. But alleging that a POSITA would have incorporated pre-authorization into Freeny—a feature Petitioner alleges Freeny already has—does nothing to fix Petitioner’s conclusory discussion of activating predetermined services in Freeny.

Accordingly, Petitioner fails to show that Freeny alone, or Freeny in view of Kou, teaches that the recited steps are performed “prior to user selection of any items or services provided by an automatic retail machine.”

C. The Petition Fails to Show that the References Teach Receiving the Recited Request “in Response to Notifying the Electronic Payment Device that the Mobile Device Has Entered the Authorization Zone”

The petition fails to show that the references teach all requirements of elements 1(c), 12(c), and/or 17(c). Element 1(c) recites “*in response to* notifying

the electronic payment device that the mobile device has entered the authorization zone, *receiving* from the electronic payment device, via the communications unit, *a request to preemptively obtain authorization to make funds available for cashless transactions with the automatic retail machine.*” (emphasis added). Claim elements 12(c) and 17(c) include analogous limitations, and the petition relies on cross-citations to its flawed discussion of element 1(c) for those limitations. Pet., 60, 66. As explained below, however, the petition fails to analyze the “in response to” requirement and presents a flawed discussion of the recited request that is both conclusory and at odds with the references’ teachings.

1. Petitioner Fails to Analyze the “in Response to” Requirement

The petition’s discussion of element 1(c) is facially incomplete, as Petitioner offers no analysis of how the references supposedly teach receiving the recited request “in response to notifying the electronic payment device that the mobile device has entered the authorization zone.” Petitioner argues that Freeny teaches the recited request and that Kou teaches receiving a request for pre-authorization of funds at a mobile device. Pet., 30-31. The remainder of the section addresses a POSITA’s supposed motivation to “implement Kou’s technique of pre-authorizing transactions in Freeny’s system.” *Id.*, 31-32. Petitioner then concludes that the references render the full limitation obvious. *Id.*, 32. Missing from the discussion

is any explanation of how the references supposedly teach receiving the request “in response to” the recited notification. Petitioner does not even mention this significant portion of the limitation outside of the section heading and the final conclusion.

Nor can any analysis of the “in response to” requirement be gleaned from the petition’s discussion of the request itself. Petitioner’s vague reference to collaboration between service companies and wireless companies to allow purchases after approval from the credit card company—problematic for additional reasons (*infra*, §VI.D)—does not address receiving a request in response to notifying an electronic payment device that the mobile device has entered an authorization zone. Pet., 30 (citing EX1004, 29:57-63). Petitioner argues that Freeny discusses a PAU user adding funds while interacting with a vending machine, but this does not show that any request is received “in response to” the recited notification. Pet., 30 (citing EX1004, 38:7-14). To the contrary, Freeny teaches that the user specifically requests such refills. EX1004, 38:7-14. Petitioner’s vague assertion that Freeny “discloses preemptively obtaining authorization in other situations” similarly fails to allege, let alone prove, that any request is received “in response to” the recited notification.

The subsequent discussion of two separate embodiments of Kou fares no better. Petitioner first alleges that Kou’s online microtransaction scheme involves “a merchant sending an offer to a consumer as part of a payment authorization process,” but Petitioner does not explain the supposed relevance to the claims, and Petitioner’s annotation of the cited figure shows the offer being sent as an initial step, not “in response to” anything. Pet., 30-31 (citing EX1005, 248, Fig. 12.3). Petitioner then cites Kou’s distinct pre-authorization scheme and concludes without explanation that the offer of Fig. 12.3 therefore includes “a request to preemptively obtain authorization.” Pet., 31 (emphasis omitted). Even if Petitioner had proven this assertion—and it has not (*infra*, §VI.D.2)—Petitioner never demonstrates that this supposed request is received “in response to notifying the electronic payment device that the mobile device has entered the authorization zone.”

Having failed to address all requirements of the claims, Petitioner cannot prove that claims 1, 12, and 17 as a whole were obviousness.

2. The Petition Fails to Show that the References Teach Receiving a “Request to Preemptively Obtain Authorization to Make Funds Available for Cashless Transactions at an Automatic Retail Machine”

The petition’s analysis is flawed even for the aspects of the limitation that it does discuss. As noted above, element 1(c) recites receiving “a request to

preemptively obtain authorization to make funds available for cashless transactions at an automatic retail machine,” and claims 12 and 17 include similar limitations. Petitioner alleges that Freeny discloses the recited request and that a POSITA would have found it obvious to receive pre-authorization requests at a mobile device in view of Kou. Pet., 30. But even setting aside Petitioner’s unexplained shifting between distinct embodiments (*supra*, §VI.A), this discussion merely quotes isolated statements in the references without explaining how the references supposedly teach receiving the recited request.

a. The Petition’s Conclusory Discussion of Freeny Is Facially Deficient

Petitioner cites Freeny’s description of distinct embodiments but provides no substantive analysis of how any of these disclosures, alone or together, teaches the recited request.

Petitioner first makes the vague assertion that Freeny discloses collaboration between service companies and wireless companies so that vending machine purchases can be made after approval is obtained from the credit card company over a wireless phone. Pet., 30 (citing EX1004, 29:57-63). As an initial matter, Petitioner overlooks that Freeny is describing a speculative proposal by other entities to work together, not describing aspects of its own system:

Most all of these machine still require collections of coins and cash although in Europe a service company and a wireless company indicated they [were] going to work together so that vending machine purchases could be made after getting approval from the credit card company over the wireless phone, i.e. by activating the wireless communication service provider.

EX1004, 29:57-63. Freeny then criticizes this approach and contrasts it with its own system, noting that the airtime cost “would probably cost more than the item being purchased,” whereas “all the proximity systems and service[s] described in these inventions do not require airtime.” *Id.*, 29:63-30:3. Regardless, Petitioner does not explain how generally obtaining a credit card company’s approval—let alone the speculative proposal from other companies that Freeny criticizes—teaches the recited request.

Petitioner’s assertion that “Freeny also discusses the user of a [PAU] refilling (*i.e.*, authorizing) additional funds during the interaction with a vending machine” is equally devoid of analysis and at odds with the reference. Pet., 30 (citing 38:7-14). Here again, Petitioner does not even attempt to explain how the alleged disclosure teaches the recited request. Moreover, as shown above, Petitioner overlooks Freeny’s explanation that the PAU user must specifically request refills. *See* EX1004, 38:7-14. Petitioner thus fails to explain how this

disclosure relates to a request to “preemptively obtain authorization to make funds available for cashless transactions at an automatic retail machine,” let alone such a request being “receiv[ed] from the electronic payment device.”

Petitioner shifts to yet another embodiment—the “toll/subway system” in the PPS embodiment—but again fails to explain how the alleged preemptive authorization teaches the recited request. Pet., 30 (citing EX1004, 13:34-37).

Petitioner’s vague assertion that “Freeny also discloses preemptively obtaining authorization in other circumstances, such as a ‘toll/subway system’” lacks any analysis of how the alleged disclosure teaches the recited request. Pet., 30.

Petitioner also ignores Freeny’s explanation that this embodiment involves proximity activation of a *predetermined* service such as raising a gate or changing the color of a light. EX1004, 13:18-37. Petitioner does not even attempt to explain how activating a gate/light involves a “request to preemptively obtain authorization to make funds available for cashless transactions at an automatic retail machine,” let alone such a request being “receiv[ed] from the electronic payment device.”

Accordingly, having offered only an unexplained citation of a speculative endeavor by other companies that Freeny criticizes and unexplained citations to

two other distinct embodiments, Petitioner fails to prove its conclusory assertion that Freeny discloses the recited request.

b. The Petition's Discussion of Kou is Conclusory and Unsubstantiated

Petitioner's subsequent discussion of Kou does not remedy its deficient analysis of Freeny. Petitioner argues that it was obvious in view of Kou "to receive at a mobile device a request for pre-authorization of funds," and cites Kou's discussion of two distinct types of systems: (1) a microtransaction system involving communication between the customer and the PSP to authorize each microtransaction and (2) a separate scheme for offline/semi-offline systems in which the PSP pre-authorizes the customer to spend up to a certain amount at a given merchant before the customer engages in any particular transactions. *See* EX1005, 274-76 (contrasting mechanisms in this section with previous microtransaction schemes in which merchants or buyers must be online during payment process). Petitioner then argues that a POSITA would have applied Kou's teachings to Freeny. As explained below, however, this conclusory discussion of Kou and the proposed combination with Freeny fails to demonstrate that the references teach receiving the recited request.

Petitioner's discussion of Kou's alleged disclosures misses the mark. As noted above, Petitioner points to the initial offer shown in Figure 12.3, then alleges

that Kou “also discloses a pre-authorization scheme as one way to reduce communication costs for micropayment systems” before concluding without explanation that a POSITA therefore “would have understood the offer in Fig. 12.3 to include *a request to preemptively obtain authorization to make funds available.*” Pet., 30-31 (citing EX1005, 248, 276, Fig. 12.3). But Petitioner overlooks Kou’s distinction between the online scheme of Figure 12.3 and subsequently discussed embodiments that do not use online payment authorization, including the semi-offline pre-authorization system. EX1005, 248 (Fig. 12.3 presents “online payment process,” and “[w]e will later discuss systems ... where there is no online payment authorization”), 276 (“Pre-authorization is a semi-offline technique....”). Petitioner thus fails to show that there is anything “preemptive” about the offer in Fig. 12.3.

The cited testimony of Petitioner’s declarant does not help. First, the testimony does not even support Petitioner’s assertion that “a POSITA would have understood the offer in Fig. 12.3 to include” the alleged request. Pet., 31 (citing EX1003, ¶80-81). Instead, Petitioner’s declarant alleges a POSITA “would have known to *incorporate* this pre-authorization method into both offer[s] depicted in Figure 12.3.” EX1003, ¶80 (emphasis added). Regardless, this testimony is

conclusory and uncorroborated and is therefore entitled to little or no weight. *See Xerox*, IPR2022-00624, Paper 9 at 15.

In addition to its misguided discussion of Kou itself, the petition fails to show that the proposed combination of Freeny and Kou teaches receiving the recited request. As an initial matter, Petitioner offers no meaningful discussion of how the proposed combination would arrive at the claimed invention. Petitioner alleges “Kou also suggests applying these teachings in systems like those disclosed in Freeny,” that Kou’s teachings were “well-suited” for use in Freeny, and that a POSITA would have been motivated to implement Kou’s technique in Freeny’s system. Pet., 31-32. But Petitioner never explains how any of Freeny’s systems would actually be modified in a way that arrives at this limitation. *See id.* Regardless, Petitioner’s vague proposal to use pre-authorization in Freeny does nothing to remedy the facially deficient analysis of how Freeny supposedly teaches the recited request. *See supra*, §VI.C.2.a.

Accordingly, Petitioner fails to show that the references, even if combined, teach receiving the recited request. Petitioner thus fails to prove that the references satisfy the “in response to” limitation and the recited “request” itself.

D. The Petition Fails to Show that the References Teach Multiple Aspects of the “Receiving” of the “Authorization Grant”

Element 1(e) recites:

in response to sending the request to the server, receiving, from the server, an authorization grant of an amount of funds corresponding to *a maximum amount associated with an item or service*, wherein *the authorization grant expires upon satisfaction of one or more predetermined criteria*.

(emphasis added). Claim elements 12(h) and 17(e) include analogous requirements, and the petition relies on cross-citations to its flawed discussion of element 1(e) for those limitations. Pet., 62, 66.

Petitioner's analysis of this limitation is facially deficient in at least three ways. First, Petitioner fails to show that the references teach receiving the recited authorization grant "in response to" sending the request to the server. Second, Petitioner fails to show that the alleged authorization grant corresponds to an amount of funds "associated with an item or service." Third, Petitioner fails to show that the references teach the wherein clause.

1. Petitioner Fails to Show that the Alleged Authorization Grant is Received "in Response to" Sending the Request to the Server

The petition's cursory, three-sentence discussion of the "in response to" requirement ignores Kou's contrary disclosure. Discussing this limitation, Petitioner asserts that a customer sends a request to the PSP (step 2 in Figure 12.3) and that afterward "the PSP send[s] an 'authorized PO as a response to the

consumer”” (step 4 in Figure 12.3). Pet., 35. Petitioner then alleges a “POSITA would have understood this authorized PO constitutes an *authorization grant*, which the customer receives *in response to the sending step*.” *Id.* As explained below, however, this conclusory discussion glosses over the intervening communications in step 3 of Figure 12.3.

Petitioner fails to show that the process depicted in Figure 12.3 of Kou involves receiving the recited granted “in response to sending the request to the server.” Figure 12.3 depicts six distinct steps, including the customer’s transmission of the offer to the PSP (step 2), the customers communications with the PSP regarding the payment (step 3), and the PSP’s subsequent approval of the payment order “PO” (step 4). EX1005, 249 (Fig. 12.3). In alleging that step 4 (the PSP’s sending of the authorized payment order or “PO”) occurs in response to step 2 (the consumer sending the merchant’s offer to the PSP), Petitioner simply ignores the intervening communications during step 3. Petitioner’s annotation of Figure 12.3 obfuscates Petitioner’s argument even more since Petitioner includes steps 3 and 4 together in the same highlighted block without explanation:

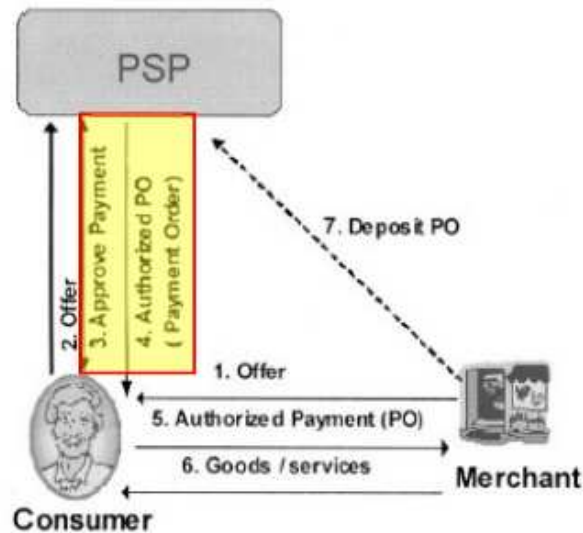


Fig. 12.3 Online payments invoked by consumer

Ex.1005, Fig. 12.3 (annotated).

Pet., 36. The petition thus offers no analysis and identifies no support in the reference for Petitioner’s conclusion that a POSITA would have understood Kou’s PO authorization to be an authorization grant received “*in response to the sending step.*” *Id.*, 35 (citing EX1003, ¶87). The cited declarant testimony is of no help, since it essentially just repeats Petitioner’s conclusory, unsubstantiated assertions and is therefore entitled to little or no weight. *Compare* EX1003, ¶87, *with* Pet., 35-36; *Xerox*, IPR2022-00624, Paper 9 at 15.

Accordingly, Petitioner fails to prove that the references teach receiving the recited authorization grant “in response to sending the request to the server,” as recited.

2. The Petition Fails to Show that the References Teach an Authorization Grant of an Amount of Funds “Corresponding to a Maximum Amount Associated With an Item or Service Provided by the Automatic Retail Machine”

Petitioner also fails to show that the references teach the recited authorization grant itself. Petitioner points to two separate systems in Kou—the pre-authorization mechanism for offline or semi-offline systems and a “one-time (or limited-use) public key digital signature”—as allegedly disclosing an authorization grant of an amount of funds “associated with an item or service,” but Petitioner’s conclusory analysis fails to show that these distinct systems, individually or together, teach the recited authorization grant of an amount of funds “corresponding to a maximum amount associated with an item or service.”

As an initial matter, Petitioner assumes and argues without proof that the pre-authorization mechanism applies to the online microtransaction scheme of Figure 12.3. Petitioner alleges that “[i]n the context of pre-authorization, Kou discloses this grant”—referring to PO authorization in step 4 of Figure 12.3—“authorizing ‘customer payments up to a pre-defined limit.’” Pet., 36 (emphasis omitted) (quoting EX1005, 276). But as discussed above, Petitioner ignores the fact that the online microtransaction process of Figure 12.3 does not use pre-authorization. *Supra*, §VI.C.2.b; EX1005, 248 (Fig. 12.3 presents “online payment

process,” and “[w]e will later discuss systems ... where there is no online payment authorization”), 274-76 (discussing offline and semi-offline techniques).

Regardless, Petitioner never explains how Kou’s pre-authorization mechanism or the one-time public key digital signature involves a maximum amount “associated with an item or service.” Discussing “the pre-defined limit” of the pre-authorization mechanism, Petitioner argues that the PSP delegates authority to the customer to authorize payment up to the limit “for whatever purchase the customer ultimately makes, if any.” Pet., 36. Turning to the digital signature embodiment, Petitioner merely alleges that it authorizes payments “for a particular merchant and a specific amount.” *Id.* Having offered no analysis, Petitioner makes the conclusory assertion that a “POSITA would have understood that the ‘pre-defined limit’ and ‘specific maximal amount’ each constitute a *maximum amount associated with an item or service.*” *Id.* (citing EX1003, ¶88). The cited testimony is equally conclusory and is therefore entitled to little or no weight. EX1003, ¶¶88-89; *Xerox*, IPR2022-00624, Paper 9. Petitioner and its declarant thus fail to provide any analysis showing *why* the cited limits are supposedly “associated with an item or service.” Petitioner’s conclusory assertion is facially insufficient to prove obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)

(proving obviousness requires “articulated reasoning with some rational underpinning”).

Accordingly, the petition provides no analysis or evidence showing that the references teach receiving an authorization grant corresponding to an amount of funds “associated with an item or service,” let alone receiving such an authorization grant “in response to sending the request to the server.”

3. The Petition Fails to Show that the References Teach “Wherein the Authorization Grant Expires Upon Satisfaction of One or More Predetermined Criteria”

The petition presents two flawed arguments against this limitation. First, Petitioner makes a conclusory, unsubstantiated argument that the wherein clause was obvious in view of Kou. Pet., 37. Second, Petitioner alleges using predetermined criteria governing grant expiration was “well known in the art, and would have been obvious to a POSITA to prevent stale authorization tokens from persisting.” *Id.* Each of these arguments fails.

Petitioner’s first argument is not only conclusory, but it is in fact contrary to Kou. Petitioner alleges without explanation that a “POSITA would have understood that a pre-authorization up to a maximal amount expires once the consumer reaches the maximal amount or (in the one-time signature scheme) when the consumer makes a purchase” and that “[t]hese two *criteria* are *predetermined*

by the PSP's pre-authorization scheme, and *expiration* occurs when either is satisfied.” *Id.* (citing EX1003, ¶90). These conclusory contentions amount to veiled inherency theories that fail as a matter of law since Petitioner never shows that expiration necessarily occurs when the alleged criteria are satisfied.

Therasense, 593 F. 3d at 1332. Even if this is not viewed as an inherency theory, Petitioner cannot prove obviousness with its wholly conclusory analysis. *In re Kahn*, 441 F.3d at 988.

Petitioner also fails to substantiate these conclusory arguments, citing only the equally conclusory testimony of its declarant. With respect to the pre-authorization amount, Petitioner's declarant alleges without explanation that “upon a consumer spending the maximum amount of authorized funds, the transaction would expire.” EX1003, ¶90. As an initial matter, he does not explain how a “transaction” expiring teaches the recited “grant” expiring. Regardless, this conclusory testimony is directly contradicted by Kou, which indicates that the pre-authorization does *not* expire when the consumer reaches the maximum amount; instead, it is up to the merchant to detect whether the authorization is reused for multiple payments that might exceed the authorized limit. EX1005, 276 (“Overspending is then limited to multiple payments to that specific merchant, which the merchant can easily detect (e.g., using sequence number).”). The cited

testimony addressing the single-use signature similarly lacks analysis or corroboration, as Petitioner’s declarant alleges without explanation that the grant “expires when the customer makes their purchase.” EX1003, ¶90. Petitioner cannot salvage conclusory arguments with citations to conclusory testimony. *See Xerox*, IPR2022-00624, Paper 9 at 15 (conclusory, uncorroborated testimony repeating petition’s argument entitled to little or no weight).

Petitioner attempts to buttress this conclusory argument by alleging that using predetermined criteria governing grant expiration was also “well known in the art” and “would have been obvious,” but this vague argument fails at every level. Petitioner first cites an earlier chapter of Kou discussing the NetBill payment system, alleging that it describes a time stamp used to expire stale transactions. *Pet.*, 37 (citing EX1005, 202). But Petitioner does not even propose applying the teachings of the cited passage—which discusses delivering goods along with an electronic payment order ID (“EPOID”) that includes a timestamp that “must be generated at the end of goods delivery” (EX1005, 202)—to the previously discussed combination, let alone explain how a POSITA would have applied these teachings to arrive at the claimed invention. *See Pet.*, 37.

Petitioner then pivots to yet another chapter of Kou, but again fails to provide any meaningful analysis. Petitioner cites a passage discussing secured

credit card transactions in which a timer is applied to successive communications to identify aborted transactions. Pet., 37 (citing EX1005, 242); EX1005, 242 (“A timer is used at each step to protect against unusual situations where one of the parties (buyer, merchant, or TTP) is not proceeding to the next step within a predetermined time interval.”). After quoting this passage, Petitioner makes the conclusory argument that a “POSITA would have found it obvious to incorporate such a time-out mechanism in the pre-authorization scheme from the combined teachings of Freeny and Kou.” Pet., 37. But Petitioner does not even attempt to explain what this further modification would actually be or it how would satisfy the claims as a whole if made.

Petitioner’s attempt to justify this unexplained combination by invoking Freeny is equally devoid of analysis. After arguing that a POSITA would have incorporated the above time-out mechanism, Petitioner argues that, “[i]ndeed, Freeny expressly discloses storing temporary authorizations in the wireless device for other implementations.” Pet., 37-38 (citing EX1004, 23:24-26). While the lack of analysis is fatal on its own, examination of the cited passage further undermines Petitioner’s argument, since this portion of Freeny describes only a door-locking system that uses temporary door codes for visiting guests. EX1004, 23:16-33.

Petitioner does not and cannot explain why temporary door codes for house guests are relevant to the proposed combination or to the challenged claims.

Accordingly, the petition's conclusory, meandering discussion fails to show that the proposed combination teaches that "the authorization grant expires upon satisfaction of one or more predetermined criteria," as required by all independent claims.

E. The Petition Fails to Show that the References Teach Sending the Authorization Grant "in Response to Detecting the Trigger Condition"

The petition's discussion of element 1(g) is facially incomplete and inconsistent with its discussion of previous limitations. This element recites:

in response to detecting the trigger condition and in accordance with a determination that the one or more predetermined criteria have not been satisfied, *sending to the electronic payment device the authorization grant* via the communications unit, enabling a user to select an item or service provided by the automatic retail machine for less than or equal to the amount of fund.

(emphasis added). Claim elements 12(j) and 17(g) include analogous requirements, and the petition relies on cross-citations to its flawed discussion of element 1(g) for those limitations. Pet., 63, 67. As explained below, however, the petition fails to address the "in response to" requirement, and the incomplete

argument that the petition does present is unsupported and is internally inconsistent.

First, the petition offers no explanation of how the cited references supposedly teach sending the authorization grant “in response to” detecting the trigger condition. Petitioner purports to address this aspect of element 1(g) on pages 42-43 of the petition, first alleging Freeny discloses “automatic and manual *trigger conditions* for proceeding with a transaction after obtaining prior authorization.” Pet., 42. But even if Petitioner had proven this—and it has not, as explained below—merely alleging that Freeny discloses trigger conditions for “proceeding with a transaction after obtaining prior authorization” does not show that the mobile device sends the authorization grant to the electronic payment device in response to such trigger conditions. Petitioner also argues that, in view of Kou, “this means transmitting the *authorization* grant, as previously discussed, to Freeny’s *electronic payment device*....” *Id.*, 43. But this still fails to explain why sending the authorization grant occurs “in response to” detecting the trigger condition. The remainder of the section discusses the recited determination that the one or more predetermined criteria have not been satisfied. *Id.* The only mention of the “in response to” requirement is thus the wholly conclusory assertion that Freeny and Kou disclose this limitation or render it obvious, which is facially

insufficient. *Id.*, 42; *In re Kahn*, 441 F.3d at 988 (proving obviousness requires “articulated reasoning with some rational underpinning”).

Regardless, the petition belies Petitioner’s assertion that “[a]s noted above, Freeny discloses both automatic and manual *trigger conditions* for proceeding with a transaction after obtaining prior authorization.” Pet., 42-43. In support of this assertion, Petitioner cites its discussion of the “trigger condition” of element 1(f), but that section contains no such argument. *See id.*, 38-40. Instead, it merely argues that Freeny discloses activating a machine with proximity-based or manual triggers, which conveys nothing about the purported triggers causing the mobile device to proceed with the transaction *after obtaining prior authorization*. *Id.*, 38-39. The remainder of the cited section simply argues that the detection of the trigger condition is performed “by an application executing on the mobile device,” which is equally unhelpful. Pet., 39-40. The conclusory testimony cited by Petitioner is also of no use because it mirrors the petition’s flawed argument, claiming to have previously explained that Freeny teaches triggers for continuing a transaction “after the authorization process is complete” while citing testimony that contains no such argument. EX1003, ¶100; *Xerox*, IPR2022-00624, Paper 12 at 4 (conclusory testimony repeating petition’s argument without additional analysis entitled to little or no weight).

Petitioner’s argument is also internally inconsistent because it cites the same purported “trigger condition” Petitioner previously argued was for *beginning* the authorization process. When discussing “notifying an electronic payment device ... that the mobile device has entered an authorization zone,” as recited in element 1(b), Petitioner argues that a proximity/manual trigger in Freeny “begin[s] an authorization process,” quoting Freeny’s description of activating a machine “automatically or manually ... when the person is within a predetermined proximity distance.” EX1004, 32:51-55; Pet., 28-29 (citing same). Yet Petitioner cites this same passage of Freeny for the trigger condition of elements 1(f) and 1(g) without even attempting to explain the contradiction. Pet., 38 (citing, *inter alia*, 32:50-66). Petitioner can hardly show that Freeny discloses trigger conditions for proceeding with a transaction “after obtaining prior authorization,” as alleged, when it previously indicated that such trigger conditions were for “beginning an authorization process.” Pet., 28, 42.

Accordingly, the petition offers no explanation of how the references teach sending the authorization grant “in response to detecting the trigger conditions,” and the petition’s incomplete argument is internally inconsistent. Petitioner therefore fails to prove that the references teach elements 1(g), 12(j), and 17(g).

* * *

In sum, having conflated distinct embodiments in Freeny without explanation, and having failed to demonstrate that the references teach numerous aspects of the independent claims, Petitioner cannot meet its burden of proving obviousness for any challenged claim.

VII. Ground 2 Fails

Ground 2 relies on the flawed analysis of Ground 1 without remedying any of the deficiencies discussed above. This ground adds Canter, alleging that it teaches additional limitations of dependent claims 3-4, 14-15, and 19-20. Pet., 67-74. This analysis does not address any of the previously discussed deficiencies with respect to the independent claims, nor does the additional motivation argument for Canter fix the flawed motivation of varied embodiment analysis of Ground 1. Ground 2 thus fails for at least the same reasons as Ground 1.

VIII. 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/
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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 7,973 words.

Respectfully submitted,

Dated: October 26, 2023

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IX. 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://web.archive.org/web/20231010224416/https://www.ebay.com/itm/185234504103].

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Patent Owner's Preliminary Response and accompanying Exhibits 2001-2005 were served on October 26, 2023, on the Petitioner at the electronic correspondence address of the Petitioner as follows:

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