

Paper No. _____
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ALLIANCE LAUNDRY SYSTEMS, LLC,
Petitioner,

v.

PAYRANGE LLC,
Patent Owner.

Case No. PGR2025-00028
Patent No. 11,972,423

PATENT OWNER'S PRELIMINARY RESPONSE

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I. INTRODUCTION

The Board should deny institution of post-grant review of U.S. Patent No. 11,972,423 (“the ’423 patent”) because Petitioner Alliance Laundry Systems, LLC, fails to demonstrate that it is more likely than not that at least one of the claims challenged in the petition is unpatentable.¹ 35 U.S.C. §324(a).

The petition challenges the claims of the ’423 patent based on four grounds, all of which fail. The first three of Petitioner’s grounds challenge the ’423 patent claims as anticipated or obvious over the prior art. Fatal to all grounds is the petition’s assertion that the applied reference, Low, anticipates each of the independent claims of the ’423 patent. However, the petition fails to provide the requisite analysis explaining, with particularity, how Low anticipates each and every limitation of the independent claims. In multiple instances, the petition merely quotes the applied reference and concludes that the quotes disclose the claim limitation. But the disclosures relied upon in the petition do not, on their face, map to the claim language, and the petition fails to sufficiently explain how

¹ Patent Owner’s brief in support of discretionary denial explains the reasons why the petition should be denied for discretionary reasons. *See generally* Paper 6. This brief addresses the reasons why the petition also fails on the merits.

one could conclude that the disclosure discloses the at-issue claim limitation. For these reasons, Petitioner fails to show that the '423 patent claims would have been anticipated by or rendered obvious over the references applied in the petition.

The petition's fourth ground, which asserts that the claims of the '423 patent claims are ineligible under §101, is equally deficient. As initial matter, Petitioner attempts to bypass its burden to prove the unpatentability of the challenged claims by piggy-backing off a previous decision by the Board concerning the patent eligibility of claims in a parent patent. Invoking collateral estoppel, Petitioner seeks to wholesale apply the Board's findings for the parent patent, but the petition ignores key differences in claim language that make collateral estoppel inapplicable in this case. Moreover, when Petitioner's case is considered on the merits, the petition only provides a perfunctory and incomplete analysis under §101 that fails to properly account for the claim limitations as an ordered whole and in light of the specification. For these reasons, Petitioner fails to establish that the '423 patent claims are patent ineligible under §101.

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

II. CLAIM CONSTRUCTION

In a PGR, claims are given their ordinary and customary meaning in light of the specification. 37 C.F.R. §42.200(b). No constructions are necessary to deny

institution because denial is warranted for numerous reasons that do not depend on claim construction, as further detailed below.

III. GROUND 1: THE PETITION FAILS TO ESTABLISH THAT THE CHALLENGED CLAIMS ARE ANTICIPATED

For Ground 1, the petition asserts that independent claims 1, 13, and 15 of the '423 patent are anticipated by the reference Low. The petition presents a cursory, facially insufficient analysis of the challenged claims that fails to show that the reference discloses all of the requirements of the claims. As detailed below, the claims recite numerous limitations that result in a specific user interface for a mobile device that enables a user to complete a transaction with a specific payment accepting unit, including:

- “identifying one or more payment accepting units in proximity to the mobile device that are available to accept payment from a mobile payment application,” where the identifying is “based at least in part on an identifier corresponding to the one or more payment accepting units” (limitations [1.2]-[1.3]);
- “displaying a user interface” that is “configured to display a visual indication of the one or more payment accepting units” (limitation [1.6]);
- “displaying a user interface” that is configured to “accept user input selecting an available payment accepting unit of the one or more payment accepting units” and “establishing ... a wireless communication path

including the mobile device and the available payment accepting unit”

(limitations [1.7]-[1.8]); and

- “after establishing the wireless communication path, enabling user interaction with the user interface ... to complete a transaction with the available payment accepting unit” (limitation [1.9]).²

The petition relies on Low as allegedly disclosing these user interface requirements, but glaringly missing from Low’s disclosure is any depiction of a user interface, let alone what it displays to the user to complete a transaction. The petition’s attempts to bridge the gaps in Low result in an incomplete analysis that insufficiently ties the prior art disclosure to the limitations as they appear in the challenged claims. In short, when the petition’s analysis is tested against the express limitations of the claims, it cannot be said that Petitioner has met its burden in proving that the challenged claims are anticipated based on Low.

A. The Petition Fails to Show that Low Discloses Limitations [1.2]-[1.3]

Limitation [1.2] of the ’423 patent claim 1 recites a method comprising, “at a mobile device,” the step of “identifying one or more payment accepting units in

² Petitioner’s labeling for the claim limitations is used throughout this preliminary response.

proximity to the mobile device that are available to accept payment from a mobile payment application executing on the mobile device.” Limitation [1.3] further recites that the “identifying” of limitation [1.2] is “based at least in part on an identifier corresponding to the one or more payment accepting units.” The petition asserts that Low teaches the claimed identifying step of limitation [1.2] “via identifiers 136,” which, according to Petitioner, identify “one or more payment accepting units (e.g., NICMs, such as vending machine 120) that are available to accept payment from a mobile payment application ... executing on the mobile device.” Pet., 25. For limitation [1.3], the petition further asserts that Low discloses that the step of identifying is based on “an identifier (e.g., machine identifier, such as the identifiers 136).” *Id.* As explained below, the petition fails to establish that Low teaches limitations [1.2]-[1.3] because the petition fails to explain how the identifiers 136 identify which of the payment accepting units (i.e., NICMs) are available to accept payment from the mobile payment application.

First, as noted above, limitations [1.2]-[1.3] require identifying a particular type of payment accepting unit—those that are “available” to accept payment from the mobile application. In other words, it is not enough to show that limitations [1.2]-[1.3] are satisfied by identifying any payment accepting unit, the identifying must also identify the payment accepting unit as “available” to accept payment. This distinction is material, as confirmed by the specification of the ’423 patent,

which describes numerous solutions to identifying the specific payment accepting units that are available to a user to complete a transaction. *See, e.g.*, EX1001, 18:23-19:53 (identifying available payment accepting units by zones in which the user is located), 23:9-24:15 (identifying and managing available units when multiple users are present), 24:19-59 (identifying and managing multiple payment accepting units available to the user), FIGS. 1-2; *infra*, section V.B.1.

In alleging that Low teaches these limitations, Petitioner states that this identification is performed “via identifiers 136,” citing to Low’s discussion that the user device 110 (which Petitioner maps to the claimed “mobile device”) may include “one or more identifiers 136” that may be implemented as “data associated with hardware of vending machine 120” or “other appropriate data used for authentication/identification of vending machine 120.” Pet., 23-24 (citing EX1005, 6:16-21). However, it is not clear from this cited portion of Low how identifiers 136 that provide data on the corresponding vending machine’s hardware or data for authenticating/identifying the vending machine would be understood to identify payment accepting units that are “available” to accept payment from the mobile payment application. Beyond merely quoting this portion of Low, Petitioner fails to provide any explanation specifically linking Low’s description of these identifiers 136 to the identification of the particular type of payment accepting units that are claimed (*i.e.*, those available to accept payment from the

mobile application). *See* Pet., 23-24. Petitioner’s expert provides the same deficient explanation. *See* EX1003, ¶¶73-74.

Furthermore, in discussing limitation [1.2], the petition also cites to Low’s discussion that “the user may utilize a user device to access payment provider server 140 and receive locations of available NICMs” and can receive “information corresponding to a plurality of NICM near user device 110,” such as “directions, map coordinates, and/or a GPS location of desired NICM.” Pet., 24 (citing EX1005, 9:16-23). However, as mentioned above, the petition argues that the claimed identifying step occurs “via identifiers 136.” Pet., 25. In discussing using payment provider server 140 to receive locations of available NICMs, Low does not state that this is performed using identifiers 136. EX1005, 9:16-23. The petition fails to explain how receipt of “locations of available NICMs” or “directions, map coordinates, and/or a GPS location of desired NICM” from the payment provider server 140 identifies available payment accepting units *via identifiers 136* as alleged in the petition.

Accordingly, Petitioner fails to establish that Low anticipates limitations [1.2]-[1.3].

B. The Petition Fails to Show that Low Discloses Limitation [1.6]

Limitation [1.6] recites a “user interface” that is “configured to display a visual indication of the one or more payment accepting units.” The one or more

payment accepting units recited in this limitation are the payment accepting units that are identified as “available” to accept payment from the mobile application, as recited in limitations [1.2]-[1.3]. The petition argues that Low anticipates this limitation through its discussion of “a machine identifier” transmitted from a NICM to a user device, and where “multiple machines may send their unique identifiers, such that the user is able to select one or more machines to purchase from.” Pet., 26-27 (citing EX1005, 2:16-20, 2:26-28, 8:66-9:2) (alteration omitted). Based on this disclosure, the petition concludes that “Low teaches the user interface (e.g., ‘interface’) being configured to display (e.g., ‘such that the user is able to select one or more machines to purchase from’) a visual indication of the one or more payment accepting units (e.g., ‘machine identifier’).” *Id.*, 27. However, as explained below, the petition fails to sufficiently explain how Low’s ***machine identifier***—which the petition maps to the claimed “visual indication”—is displayed on the user interface.

As an initial matter, while the petition generally asserts that “[a] POSA would understand that the user device 110 is configured to display the available machines” based on the cited portions of Low, none of the cited portions of Low mention a user interface and what it displays, nor is any user interface depicted in Low. See EX1005, 2:16-20, 2:26-28, 8:66-9:2, FIGS. 1-5. Aside from the petition’s conclusory assertion, the petition provides no additional explanation as

to how Lowe's user device "display[s] the available machines" and what a POSA would have understood to be displayed as a visual indication of such machines—an assertion that falls far short of meeting Petitioner's burden to prove anticipation based on Low. Pet., 27. Petitioner's expert merely parrots the same conclusory assertions. See EX1003, ¶81.

Instead, the only aspect of Low that the petition identifies as a displayed visual indication of an available vending machine is Low's "machine identifier." Pet., 27. However, Low merely describes using this machine identifier as part of the communication transmissions between, for example, the user device and the payment provider server. For instance, Low explains that the payment provider server 140 can "transmit[] information about items for sale" at a vending machine to a user device, which "may be transmitted in response to a request by user device 110." EX1005, 8:61-66. This can occur when a user "access[es] electronic payment module 130" provided on the vending machine using the user device 110, which causes the user device 110 to "receive a machine identifier" and transmit it "to payment provider server 140 to receive information corresponding to vending machine 120." See EX1005, 8:61-9:4.

Thus, Low describes the machine identifier as a communication that is transmitted between the user device and payment provider server to facilitate a transaction. Low provides no indication that the machine identifier is displayed as

a visual indication of the vending machine on the user interface, much less as a visual indication of a vending machine that is *available* to accept payment, as established by limitations [1.2]-[1.3]. *Supra*, section III.A. Indeed, when expressly discussing displaying information to the user on the user device, Low contemplates the display of other types of information, not the machine identifier. *See, e.g.*, EX1005, 2:23-25 (a “menu” is “displayed on the user device”), 2:46-49 (stating “[t]he user device displays the purchase request”), 9:8-13 (explaining payment provider server “may include information in database 146 for transmission to user device 110 to display to user 102,” which may include “lists of products,” “available inventory, nutritional information, or other desirable data”).

As such, Petitioner’s reliance on Low’s machine identifier as the claimed “visual indication of the one or more payment accepting units” is insufficient to establish anticipation.³ Accordingly, Petitioner fails to establish that Low anticipates limitation [1.6].

³ Indeed, highlighting this deficient anticipation analysis is the petition’s obviousness analysis with respect to dependent claim 11, which further recites the display of a visual representation of the available payment accepting unit selected by the user. *See Pet.*, 64-67. For that limitation, recognizing the lack of disclosure regarding what is displayed on any user interface of Low, the petition turns to

C. The Petition Fails to Show that Low Discloses Limitations [1.7]-[1.8]

Limitation [1.7] recites that the user interface is configured to “accept user input selecting an available payment accepting unit of the one or more payment accepting units.” Limitation [1.8] further recites “establishing via the one or more radio transceivers [of the mobile device] a wireless communication path including the mobile device and the available payment accepting unit of the one or more payment accepting units.” Taken together, limitations [1.7] and [1.8] thus recite an ordered combination in which the user interface first accepts user input selecting an available payment accepting unit and *then* a wireless communication path is established between the mobile device and the available payment accepting unit that was selected by the user input.

Petitioner’s analysis fails to sufficiently explain how Low anticipates these limitations. For limitation [1.7], the petition relies on Low’s disclosure of the transmission of a machine identifier from the vending machine to the user device to assert that “[a] POSA would understand that the user device 110 [of Low] is configured to display the available machines such that the user is able to interact

Arora for teachings regarding the display of icons or photographs on a user interface. *Id.*

with the display to select the one or more machines from which to make a purchase.” Pet., 27 (citing EX1005, 2:16-20, 2:26-28). For limitation [1.8], the petition cites only to disclosure in Low stating that the user device “communicates with a non-Internet connected unmanned device/machine via wireless communication” and may receive inventory data “after a short range communication link is established” between the user device and vending machine. *Id.*, 37-38 (citing EX1005, 2:11-16, 2:38-39, 8:24-28).

As an initial matter, Petitioner points to **no** disclosure in Low describing or illustrating a user interface that displays payment accepting units and accepts user input selecting an available payment unit. Instead, the petition merely cites to Low’s discussion of machine identifiers—which, as discussed above with respect to limitation [1.6], are not disclosed as being displayed on a user interface—and concludes that “[a] POSA would understand” that the user interface would display the machines and accept user input as claimed, citing only to its expert’s testimony, which itself provides no independent basis in support of this conclusion. See Pet., 27 (citing EX1003, ¶83). This cursory analysis is facially insufficient to support a finding that Low anticipates the relevant claim limitations.

Moreover, Low’s explanation that the user device may receive inventory data “after a short range communication link is established” does not make clear when the wireless communication path is established with an available vending

machine relative to receiving user input selecting the available vending machine. The petition fails to explain how disclosure of establishing a communication link before receiving inventory data supports a conclusion that the communication link is established after receiving the user input discussed for limitation [1.7], as required by limitation [1.8].

Accordingly, Petitioner fails to establish that Low anticipates limitations [1.7]-[1.8].

D. The Petition Fails to Show that Low Discloses Limitation [1.9]

Limitation [1.9] recites “after establishing the wireless communication path, enabling user interaction with the user interface of the mobile payment application to complete a transaction with the available payment accepting unit.” For this limitation, the petition points to disclosure in Low that the user device “may receive inventory data 154 (e.g., purchasable products at vending machine 120) from a vending machine” after the communication link is established. *Id.*, 28-29 (citing EX1005, 8:24-28). The petition also relies on Figure 3 of Low as “illustrating a method for use by a user device for an electronic payment to a non-Internet connected device.” *Id.*, 29 (citing EX1005, 10:1-3). This analysis falls short of addressing all aspects of limitation [1.9], which requires, after establishing the wireless communication path, enabling user interaction with the user interface “to complete a transaction” with the available payment accepting unit.

Specifically, none of the portions of Low relied upon in the petition explain that user interaction is enabled “to complete a transaction” with the available vending machine selected by the user after the wireless communication path between the user device and vending machine is established. As noted above, Low does not depict or describe in detail the user interface that is provided on the user device 110. *See supra*, section III.B. While Petitioner cites to Low’s discussion that “[i]nventory data 154 may be received from vending machine 120, for example using an Internet connection of user device 110 after a short range communication link is established between user device 110 and vending machine 120” (EX1005, 8:24-28), Low is otherwise silent on whether user interaction with the user interface of the mobile device is enabled “to complete a transaction” after such a communication link has been established.

Furthermore, Petitioner’s reliance on Low’s Figure 3 does not illuminate what, if any, user interaction is enabled on the user interface “to complete the transaction.” The petition simply reproduces the figure but never identifies the specific aspect of the figure that is being relied upon as the claimed user interaction. *See Pet.*, 29-30. Petitioner’s expert similarly reproduces the figure with no explanation. *See EX1003*, ¶¶87-89. This omission is significant because Low describes Figure 3 as containing several steps in which the user device communicates with the vending machine and a server for an electronic payment.

For example, Low describes receiving information about items for sale from the vending machine to the user device (step 302) and sending a purchase request from the vending machine to the user device after a user has selected a product for purchase (step 304). *See* EX1005, 10:5-7, 10:18-29. Low further explains that the user device then “transmits the purchase request to a server for approval” (step 306), where, after processing, the server sends an approval to the user device, which may “use a payment authorization included in the approval with electronic payment module 130 to dispense a purchased item of products 124 from vending machine 120” (step 308). *Id.*, 10:41-61. In describing the steps of Figure 3, Low provides no indication that user interaction is necessary to transmit the purchase request to the server for approval or transmit the approval from the server to the vending machine for product dispensing. At best, the only user interaction suggested by Low is when the user selects a product to receive the purchase request from the vending machine (*see* EX1005, 10:18-28), but the petition fails to explain how this selection, which is conditioned on approval from the server, serves to “complete a transaction” with the available payment accepting unit, as recited. *See* Pet., 28-31. Simply put, the petition fails to meet the requirement that it identify, with particularity, how Low discloses the specific requirements of the claim limitation.

Accordingly, Petitioner fails to establish that Low anticipates limitation [1.9].

For the reasons above, Petitioner fails to meet its burden in proving that claim 1 is anticipated by Low.

E. The Petition Fails to Show that Low Discloses the Limitations of Independent Claims 13 and 15

Petitioner relies on its claim 1 analysis for the corresponding limitations recited in independent claims 13 and 15. *See* Pet., 39-46. Accordingly, for the same reasons detailed above, Petitioner fails to prove that independent claims 13 and 15 are anticipated by Low. Thus, the petition's Ground 1 fails.

IV. GROUNDS 2-3: THE PETITION FAILS TO ESTABLISH THAT THE CHALLENGED CLAIMS ARE OBVIOUS

Ground 2 of the petition challenges dependent claims 7 and 9 as obvious over Low in further view of Arora. *See* Pet., 6. Ground 3 challenges dependent claim 11 as obvious over Low and Arora in further view of Freeny and Casey. *Id.* Each of these claims depend from independent claim 1, which the petition asserts is anticipated by Low under Ground 1. Because the petition fails to show that Low discloses each and every limitation of independent claim 1, Grounds 2 and 3, which challenge dependent claims, fail for the same reasons discussed above. *See supra*, section III.

V. GROUND 4: THE PETITION FAILS TO ESTABLISH THAT THE CHALLENGED CLAIMS ARE PATENT INELIGIBLE

For Ground 4, the petition further contends that the challenged claims are patent ineligible under §101. The petition advances two arguments in support of its assertions. First, Petitioner argues that PayRange is collaterally estopped from arguing that the '423 patent claims are directed to patent eligible subject matter. Second, in purportedly applying the two-step framework of *Alice*, Petitioner argues that the '423 patent claims are directed to an abstract idea and fail to provide an inventive concept transforming the abstract idea into a practical application. As explained below, neither of Petitioner's arguments have merit.

A. The Petition Fails to Establish that Collateral Estoppel Applies

Petitioner attempts to bypass the §101 analysis by alleging that PayRange is collaterally estopped from arguing that the challenged claims of the '423 patent are patent eligible. *See* Pet., 72-76. According to Petitioner, because the claims of the '423 patent are “materially identical” to the claims of U.S. Patent No. 10,891,614 (“the '614 patent”), the Board's determination finding some of the '614 patent claims patent ineligible under §101 in PGR2021-00093 (“the '614 PGR”) equally applies to the claims of the '423 patent. *Id.*, 73-75. Petitioner's assertion of collateral estoppel is erroneous—Petitioner ignores multiple differences between the limitations recited by the '423 patent claims challenged in this proceeding and the '614 patent claims found ineligible in the '614 PGR. When

these differences are considered, together with the principle that the §101 analysis must evaluate the claims as a whole, Petitioner fails to establish that collateral estoppel applies to the issue of patent eligibility of the challenged claims of the '423 patent.

As an initial matter, Petitioner recognizes there are differences between claim 1 of the '423 patent and claim 1 of the '614 patent, including limitations that include language that does not appear in claim 1 of the '614 patent. As shown by Petitioner's comparison chart (reproduced below), these include limitations [1.3], [1.8], [1.9], and [1.11] (where the limitations of claim 1 of the '614 patent are shown on the left and the limitations of claim 1 of the '423 patent are shown on the right):

Limitation [1.3]	Limitation [1.3]
the identifying including detecting predefined radio messages broadcast by the one or more payment accepting units	the identifying including detecting predefined radio messages broadcast by <u>based at least in part on an identifier corresponding to</u> the one or more payment accepting units,

Limitation [1.8]	Limitation [1.8]
establishing via the one or more radio transceivers a wireless connection between the mobile device and the available payment accepting unit of the one or more payment accepting units;	establishing via the one or more radio transceivers a wireless connection <u>communication path including</u> the mobile device and the available payment accepting unit of the one or more payment accepting units;

Limitation [1.9]	Limitation [1.9]
after establishing the wireless connection, presenting the user interface of the mobile payment application and enabling user interaction with the user interface of the mobile payment application to complete the vending transaction;	after establishing the wireless connection <u>communication path</u> , presenting the user interface of the mobile payment application and enabling user interaction with the user interface of the mobile payment application to complete a <u>the</u> vending transaction <u>with the available payment accepting unit</u> ,
Limitation [1.11]	Limitation [1.11]
in response to receiving the information, displaying, on the display, an updated user interface of the mobile payment application to the user of the mobile device.	in response to receiving <u>after exchanging</u> the information, displaying, on the display, an updated user interface of the mobile payment application to the user of the mobile device.

EX1011, 1-3.

In arguing that collateral estoppel applies, the petition asserts that independent claim 1 of the '423 patent is “broader” than claim 1 of the '614 patent, particularly pointing to limitations [1.3] and [1.7] as allegedly “broadened versions of the corresponding limitations of the '614 patent.” Pet., 75. However, aside from characterizing claim 1 of the '423 patent as broader based on select limitations, the petition provides scant analysis that addresses the specific differences between claim 1 of the '423 patent and claim 1 of the '614 patent, let alone explains how these differences do not materially alter the question of patent eligibility. For example, while the petition summarily characterizes limitation [1.3] of the '423 patent as broader, the limitation requires a different means for identifying the available payment accepting units (on the basis of a particular message content, *i.e.*, an identifier) compared to that of the '614 patent (detection

through a particular communication medium, *i.e.*, predefined radio messages). Further, limitations [1.8]-[1.9] of claim 1 the '423 patent require a wireless “communication path” that includes the mobile device and the available accepting payment unit and limitation [1.11] recites that “after exchanging” the information, an updated user interface is displayed. The petition’s collateral estoppel analysis does not acknowledge these differences in language, which do not appear in the corresponding limitations of claim 1 of the '614 patent, and does not explain how these differences fail to materially alter the question of patent ineligibility. Thus, the petition fails to provide the requisite analysis to establish that collateral estoppel applies.

Furthermore, Petitioner contends that “even if the Board were to find that these limitations raise a new issue of validity, collateral estoppel still applies to the Board’s findings regarding all materially identical limitations of the '423 patent.” Pet., 78. The only authority Petitioner cites as support for this assertion is a Board decision in an IPR that applied collateral estoppel to findings regarding the prior-art status of a reference and the specific limitations taught by the reference. *Id.* (citing *Keysight Techs., Inc. v. Centripetal Networks, LLC*, IPR2023-00446, Paper 30, 21). However, the patent-eligibility inquiry under §101 “requires that the claims be read as a whole.” *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1011 (Fed. Cir. 2018) (citing *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208

(2014)). Petitioner cites to no authority that collateral estoppel as to the issue of patent eligibility can be applied on a limitation-by-limitation basis. As such, Petitioner fails to show that collateral estoppel applies to the claims of the '423 patent based on the Board's finding that claim 1 of the '614 patent was patent ineligible.

B. The Petition Fails to Establish that the Challenged Claims Are Directed to Patent Ineligible Subject Matter

Turning to the merits of Petitioner's Ground 4 challenge, the petition's analysis is deficient in showing that the challenged claims of the '423 patent are directed to patent-ineligible subject matter. In asserting that the challenged claims are ineligible, the petition oversimplifies the claims, addressing the recited limitations on a piecemeal basis, rather than as a whole as required by a §101 analysis. As detailed below, the invention captured by the challenged claims is directed to an improvement in a physical technology—payment accepting units, such as vending machines—that recites non-conventional and non-routine means for effecting the improvement. The petition fails to provide sufficient reasoning and objective evidence that would support a finding that the claims are directed to an abstract idea and, even if they were, that they only add well-understood and conventional features beyond the abstract idea. For these reasons, the petition fails to establish that the challenged claims are directed to ineligible subject matter under §101.

1. The petition fails to show that the claims are directed to an abstract idea (*Alice* step 1)

In arguing that the challenged claims fail step 1 of the *Alice* test, Petitioner asserts that claim 1 of the '423 patent “is directed to the abstract idea of identifying a merchant and enabling completion of a purchase from the merchant.” Pet., 78. To support this conclusion, the petition addresses each of the limitations individually, asserting that each limitation recites “nothing more than using well-understood, routine, conventional elements to perform the abstract idea.” *Id.*, 78-81. As explained below, the petition’s contentions are insufficient to support Petitioner’s burden in establishing that the challenged claims fail to pass step 1 of the *Alice* test because the petition fails to apply the proper analysis.

“To determine the focus of the claimed advance at *Alice* step one,” the §101 analysis “look[s] to whether the claims are directed to ‘a specific means or method that improves the relevant technology’ rather than simply being directed to ‘a result or effect that itself is the abstract idea.’” *Contour IP Holding, LLC v. GoPro, Inc.*, 113 F.4th 1373, 1379 (Fed. Cir. 2024) (quoting *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016)). “Precedent has recognized that specific technologic modifications to solve a problem or improve the functioning of a known system generally produce patent-eligible subject matter.” *Trading Techs. Int’l, Inc. v. CQG, Inc.*, 675 F. App’x 1001, 1004-05 (Fed. Cir. 2017). To make this determination, the analysis must “examine the patent’s

claimed advance,” *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018) (internal quotations omitted), and must “consider the patent’s written description, as it informs [the] understanding of the claims,” *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1368 (Fed. Cir. 2020). *See also Smart Sys. Innovations, LLC v. Chicago Transit Authority*, 873 F.3d 1364, 1379 (Fed. Cir. 2017) (J. Linn, dissenting-in-part and concurring-in-part) (“A determination of what the claims are directed to is often aided by a consideration of the specification and its description of the problem to be solved and the discovered solution to that problem.”).

The petition fails to analyze the challenged claims under this framework. The only discussion of the claims provided by the petition is a limitation-by-limitation analysis where the petition asserts that each limitation, standing on its own, recites “well-understood, routine, conventional elements.” Pet., 78-81. However, not only does the petition fail to cite to any evidence to support its arguments (apart from unexplained citations to the patent’s specification and case law), simply contending that the claims employ known or conventional components that existed in the prior art at the time of the invention is insufficient to establish that the claim is directed to an abstract idea at step one. *Contour IP*, 113 F.4th at 1380 (“GoPro contends that the claims simply employ known or conventional components that existed in the prior art at the time of the invention.

... Even so, that *alone* does not necessarily mean that the claim is *directed to* an abstract idea at step one.”). Moreover, apart from stating that each claim limitation individually recites well-understood, routine, conventional elements, the petition merely concludes that the claims are directed to an abstract idea. *See* Pet., 80-81. But, at step one, “it is not enough to merely identify a patent-ineligible concept underlying the claim,” it must be “determine[d] whether that patent-ineligible concept is what the claim is ‘directed to.’” *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1050 (Fed. Cir. 2016); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016) (cautioning against “describing the claims at such a high level of abstraction and untethered from the language of the claims”). The Board should reject this ground in view of the petition’s failure to provide the analysis required by controlling law.

While it is not PayRange’s burden to prove eligibility after Petitioner failed in its showing, the eligibility of the challenged claims is nevertheless readily apparent. Both the claims and the written description show that the claims recite a specific method that improves the technology of particular technical field—self-service payment operated machines, such as payment-activated washers and dryers, vending machines, parking meters, arcade games, and the like. The claims themselves recite a specific method that is directed to an improvement over the way conventional payment operated machines can operate. *See ADASA Inc. v.*

Avery Dennison Corp., 55 F.4th 900, 908 (Fed. Cir. 2022) (“If the focus of the claim is a specific and concrete technological advance, for example an improvement to a technological process or in the underlying operation of a machine, our inquiry ends and the claim is eligible.”). Specifically, the claims provide a method in which a mobile device identifies the “payment accepting units that are available to accept payment” from the mobile device “based at least in part on an identifier corresponding to the one or more payment accepting units.” Once identified, the claims provide for the display of “a user interface” that is “configured to display a visual indication of the one or more payment accepting unit” and “accept user input selecting an available payment accepting unit.” The claims go on to state that, upon this selection, the mobile device establishes a wireless communication path with the available payment accepting unit via one or more radio transceivers, and, after establishing the wireless communication path, enables user interaction with the user interface of the mobile device “to complete a transaction with the available payment accepting unit.” Together, these claim limitations capture an advance that enables a payment operated machine to operate through a user’s mobile device by providing the user with a specific user interface that enables the user to select an available machine, connect with that machine, and complete a transaction with it.

The advance captured by the limitations of the claims is further described by the '423 patent's specification. The specification explains that, conventionally, in using a payment operated machine, a user would approach the payment accepting unit, determine from the face of the payment accepting unit its availability and the desired product or service, insert payment, then input the selection into a user interface provided on the payment accepting unit. EX1001, 2:5-15. The '423 patent specification recognizes that Internet-connected mobile devices can provide an extension of, and an improvement over, the user interface traditionally provided on the payment accepting unit. *See id.*, 2:16-21, 9:57-65. As confirmed by the specification, the method claimed by the '423 patent not only provides a user interface that improves upon such a traditional payment operated machine interface by extending its operating range, but also ensures that a user is interfacing with the desired payment operated machine and is able to complete the desired transaction. *See, e.g., id.*, 18:23-19:53, 23:9-24:15 (invention “manages and resolves issues pertaining to multiple users”), 24:19-59 (invention further manages scenarios in which multiple payment accepting units are available to the user). Thus, the claims are directed to a non-abstract technical improvement in payment operated machines, which enables such machines to perform in ways that they could not with traditional user interfaces. *See ADASA*, 55 F.4th at 908.

In sum, the petition provides only a bare-bones analysis of the challenged claims, choosing instead to deconstruct the claimed invention to its individual parts and declare those parts to be generic and conventional. This is not the proper analysis. In view of the petition’s failure to engage with the claims as an ordered combination and in light of the advance described in the patent’s written description, the petition should be found to be insufficient to meet Petitioner’s burden in establishing that the claims are directed to an abstract idea under step one of *Alice*.

2. The petition fails to show that the claims recite conventional, routine features (*Alice* step 2)

While the petition’s arguments under step 1 of the *Alice* test are insufficient to show that the challenged claims are patent ineligible, the petition also fails to prove that the specific requirements of the challenged claims were well-known, routine, and conventional under *Alice* step 2. Specifically, the petition contends that “[o]ther than the abstract idea, Claim 1 recites only generic elements” and “merely applies the abstract idea with a well-understood, routine, and conventional wireless mobile device.” Pet., 84-85.

But, as explained above, the specific user interface elements and how those elements interact with the payment operated machine provide an improvement over traditional operation of such machines, which required a user to interact with a user interface provided on the machine itself. *Supra*, section V.B.1. Petitioner

cannot simply waive off these limitations as abstract when they provide a “concrete, specific solution” to the operation of payment operated machines by reciting specific steps and user interface elements that enable the identification of and connection to an available machine and ensure the completion of a transaction with the machine through the mobile device’s user interface. *See CosmoKey Sols. GmbH & Co. KG v. Duo Security LLC*, 15 F.4th 1091, 1096, 1099 (Fed. Cir. 2021) (finding claims reciting “specific” limitations toward “an improved method for overcoming hacking” in a method for authenticating a user to a transaction supplied an inventive concept to render the claims patent eligible). The petition provides no evidence that the claims, taken as a whole, recite “well-known, routine, and conventional” activities previously known to the industry. *See id.*, 83-84.

Accordingly, for these reasons, the petition fails to establish that the challenged claims are patent ineligible under step 2 of *Alice*.

VI. CONCLUSION

For at least the reasons discussed above, the petition fails to demonstrate that it is more likely than not that at least one of the claims challenged in the petition is unpatentable. Accordingly, Patent Owner respectfully requests the Board deny the petition.

Respectfully submitted,

Date: May 27, 2025

/ Matthew A. Argenti /

Matthew A. Argenti, Lead Counsel
Reg. No. 61,836

CERTIFICATE OF COMPLIANCE

Pursuant to §42.24(d), the undersigned certifies that this paper contains no more than 18,700 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 6170 words.

Respectfully submitted,

Date: May 27, 2025

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VII. APPENDIX – LIST OF EXHIBITS (PREVIOUSLY FILED)

Exhibit No.	Description
2001	PayRange Inc.’s Amended Answer to Complaint and Counterclaims, <i>Alliance Laundry Sys. LLC v. PayRange Inc.</i> , Case No. 24-733-MN (D. Del.)
2002	Excerpts from File History of U.S. Application No. 17/654,732 (U.S. Patent No. 11,481,772)
2003	Excerpts from File History of U.S. Application No. 15/603,400 (U.S. Patent No. 10,891,614)
2004	Alliance Laundry Systems LLC’s Partial Motion to Dismiss PayRange’s Amended Counterclaims, <i>Alliance Laundry Sys. LLC v. PayRange Inc.</i> , Case No. 24-733-MN (D. Del.)
2005	Alliance Laundry Systems LLC’s Opening Brief in Support of Its Partial Motion to Dismiss PayRange’s Amended Counterclaims, <i>Alliance Laundry Sys. LLC v. PayRange Inc.</i> , Case No. 24-733-MN (D. Del.)
2006	Alliance Laundry Systems LLC’s Request for Oral Argument on Its Motion to Dismiss, <i>Alliance Laundry Sys. LLC v. PayRange Inc.</i> , Case No. 24-733-MN (D. Del.)
2007	Alliance Laundry Systems LLC’s Complaint for Declaratory Judgment, <i>Alliance Laundry Sys. LLC v. PayRange Inc.</i> , Case No. 24-733-MN (D. Del.)

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Patent Owner's Preliminary Response was served on May 27, 2025, on the Petitioner at the electronic correspondence address of the Petitioner as follows:

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