

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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CSC SERVICEWORKS, INC.,  
Petitioner,

v.

PAYRANGE INC.,  
Patent Owner.

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IPR2023-01186  
Patent 8,856,045 B1

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Before KEN B. BARRETT, MEREDITH C. PETRAVICK, and  
STACEY G. WHITE, *Administrative Patent Judges*.

PETRAVICK, *Administrative Patent Judge*.

DECISION  
Granting Institution of *Inter Partes* Review  
35 U.S.C. § 314

## I. INTRODUCTION

### A. *Background and Summary*

CSC ServiceWorks, Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–26 (“the challenged claims”) of U.S. Patent No. 8,856,045 B1 (Ex. 1001, “the ’045 patent”). Paper 1 (“Pet.”). PayRange Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). We authorized the parties to submit additional briefing to address an argument raised by Patent Owner. Ex. 3001. Petitioner filed a Reply (Paper 7, “Prelim. Reply”) and Patent Owner filed a Sur-reply (“Paper 8, “Prelim. Sur-reply”).

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the petition “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

After considering the Petition, the Preliminary Response, the Reply, the Sur-reply, and the evidence of record, we determine the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the challenged claims of the ’045 patent. Accordingly, we institute an *inter partes* review of claims 1–26 of the ’045 patent on the grounds asserted in the Petition.

### B. *Real Parties-In-Interest*

Petitioner identifies itself, CSC ServiceWorks, Inc., as the real party-in-interest. Pet. 84. Patent Owner identifies itself, PayRange Inc., as the real party-in-interest. Paper 4, 1.

*C. Related Matters*

Petitioner and Patent Owner identify the following related court proceedings:

*PayRange Inc. v. CSC ServiceWorks, Inc.*, Case No. 1:23-cv-00278 (D. Del.)

*PayRange Inc. v. CSC ServiceWorks, Inc.*, Case No. 1:22-cv-00502 (D. Del.)

Pet. 84; Paper 4, 1.

Patent Owner identifies additionally the following related court proceedings:

*PayRange Inc. v. Kiosoft Techs., LLC*, Case No. 1-20-cv-20970 (S.D. Fla.)

*PayRange Inc. v. KioSoft Techs., LLC*, Case No. 1-20-cv-24342 (S.D. Fla.)

Paper 4, 1.

Patent Owner also identifies the following related Board proceedings:

*KioSoft Techs., LLC v. PayRange Inc.*, Case No. CBM2020-00026 (U.S. Patent No. 9,659,296)

*KioSoft Techs., LLC v. PayRange Inc.*, Case No. IPR2021-00086 (U.S. Patent No. 9,659,296)

*CSC ServiceWorks, Inc. v. PayRange Inc.*, Case No. IPR2023-01187 (U.S. Patent No. 10,438,208)

*CSC ServiceWorks, Inc. v. PayRange Inc.*, Case No. IPR2023-01188 (U.S. Patent No. 10,891,608)

*Kiosoft Techs., LLC v. PayRange Inc.*, Case No. PGR2021-00077 (U.S. Patent No. 10,719,833)

*Kiosoft Techs., LLC v. PayRange Inc.*, Case No. PGR2021-00084 (U.S. Patent No. 10,891,608)

*Kiosoft Techs., LLC v. PayRange Inc.*, Case No. PGR2021-00093 (U.S. Patent No. 10,891,614)

*Kiosoft Techs., LLC v. PayRange Inc.*, Case No. PGR2022-00035  
(U.S. Patent No. 11,074,580)

*KioSoft Techs., LLC v. PayRange Inc.*, Case No. PGR2023-00042  
(U.S. Patent No. 11,481,772)

Paper 4, 1–2.

*D. The '045 Patent (Ex. 1001)*

The '045 patent, titled “Mobile-Device-To-Machine Payment Systems,” discloses a system that allows users with mobile devices to make cashless purchases of products or services from payment accepting units such as vending machines, parking meters, arcade games, kiosks, etc. Ex. 1001, code (54), 1:27–38, 9:30–35. Figure 5, reproduced below, shows components of the disclosed mobile-device-to-machine payment system and the interactions therebetween. *Id.* at 18:45–47.

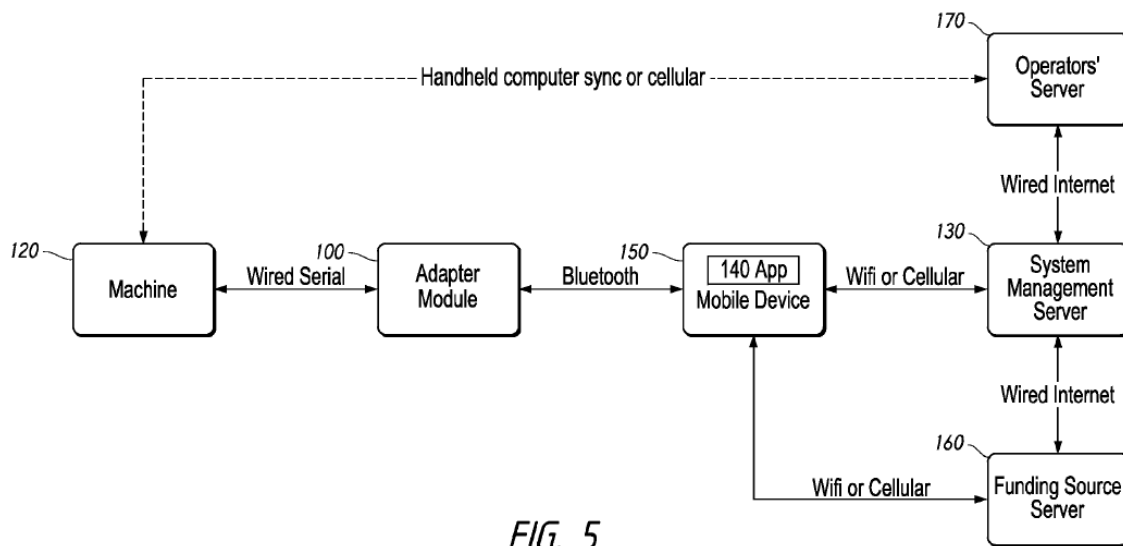


FIG. 5

Figure 5 shows adapter module 100 connected to payment accepting unit 120 via a wired serial connection. *Id.* at 18:48–50. Adapter module 100 is connected to mobile device 150 and its installed mobile application 140 via short-range communication technology, e.g., Bluetooth. *Id.* at 18:50–54.

Mobile device 150 and installed mobile application 140 are connected to system management server 130 via long-range communication technology, e.g., WiFi or cellular. *Id.* at 18:59–64.

As disclosed by the '045 patent, adapter module 100 sends an authorization request for funds to mobile device 150 using the short-range communication technology. *Id.* at 3:52–54. Mobile device 150 then forwards the authorization request for funds to server 130 using the long-range communication technology. *Id.* at 3:54–56, 13:65–67. If funds are available, server 130 sends an authorization grant for funds to mobile device 150 using the long-range communication technology. *Id.* at 3:56–58, 13:65–67. Mobile device 150 then forwards the authorization grant for funds to adapter module 100 using the short-range communication technology. *Id.* at 3:58–60. Payment accepting unit 120 dispenses a product or service in response to receiving user input to an input mechanism of payment accepting unit 120 if adapter module 100 has received the authorization grant. *Id.* at 3:60–64.

#### *E. Illustrative Claims*

Petitioner challenges claims 1–26 of the '045 patent. Claims 1, 10, and 18 are independent. Independent claim 1 is illustrative and reproduced below.

1. A mobile-device-to-machine payment system for facilitating a cashless transaction for purchase of at least one product or service by a user from a payment accepting unit having input mechanisms, the user having a mobile device having both short-range communication technology and long-range communication technology, the payment accepting unit capable of dispensing at least one product or service, said system comprising:

- (a) an adapter module associated with the payment accepting unit, said adapter having short-range communication technology for communicating with the short-range communication technology of the mobile device;
- (b) a server having long-range communication technology for communicating with the long-range communication technology of the mobile device;
- (c) said adapter module for sending an authorization request for funds to the mobile device using short-range communication technology, the mobile device forwarding said authorization request for funds to said server using long-range communication technology; and
- (d) said server for sending an authorization grant for funds to the mobile device using long-range communication technology, the mobile device forwarding said authorization grant for funds to said adapter module using short-range communication technology;
- (e) wherein the payment accepting unit dispenses the at least one product or service in response to receiving user input to the payment accepting unit input mechanism if said adapter module has received said authorization grant.

Ex. 1001, 32:24–53.

*F. Evidence*

| Name      | Reference                               | Date                       | Exhibit |
|-----------|-----------------------------------------|----------------------------|---------|
| Low       | U.S. Patent No. 10,210,501 B2           | Issued<br>Feb. 19, 2019    | 1004    |
| Skowronek | U.S. Patent Pub. No.<br>2009/0106160 A1 | Published<br>Apr. 23, 2009 | 1005    |
| Freeny    | U.S. Patent No. 8,958,846 B2            | Issued<br>Feb. 17, 2015    | 1006    |
| Wilson    | U.S. Patent No. 7,455,223 B1            | Issued<br>Nov. 25, 2008    | 1007    |

Petitioner also relies on the Declaration of B. Clifford Neuman, Ph.D.  
(Ex. 1003).

*G. Asserted Grounds*

Petitioner asserts that claims 1–26 would have been unpatentable on the following grounds:

| Ground | Claim(s) Challenged | 35 U.S.C. § | Basis                              |
|--------|---------------------|-------------|------------------------------------|
| 1      | 1 and 18            | 102 and 103 | Low                                |
| 2      | 2, 3, 19, and 20    | 103         | Low and Skowronek                  |
| 3      | 4–6 and 21–23       | 103         | Low and Freeny                     |
| 4      | 10–14               | 103         | Low, Skowronek, and Freeny         |
| 5      | 8, 9, 25, and 26    | 103         | Low and Wilson                     |
| 6      | 7 and 24            | 103         | Low, Freeny, and Wilson            |
| 7      | 15–17               | 103         | Low, Skowronek, Freeny, and Wilson |

II. ANALYSIS

*A. Alleged Failure to Identify Real-Parties-In-Interest*

Patent Owner argues that the Petition should be denied because the Petition alleged fails to identify KioSoft Technologies, LLC (“KioSoft”) and TechTrex, Inc. (“TechTrex”) as real-parties-in-interest, as required by 35 U.S.C. § 312 (*see also* 37 C.F.R. § 42.8 (a)(1), (b)(1)). Prelim. Resp. 6–10; Prelim. Sur-reply 1–7.

Petitioner disputes that KioSoft and TechTrex are real-parties-in-interest. Prelim. Reply 1–7. And, argues that “there is no reason for the Board to address PayRange’s RPI argument at institution because no time-bar or estoppel issue exists.” *Id.* at 2–3 (“To date, PayRange has not asserted the ‘045 patent against Kiosoft or TechTrex, and thus no time bar ever triggered under § 315(b) based on separate litigation between PayRange and Kiosoft/TechTrex.”).

The Board’s precedential decision *SharkNinja Operating LLC v. iRobot Corp.*, IPR2020-00734, Paper 11 (PTAB Oct. 6, 2020) (“*SharkNinja*”) held that it best serves the Office’s interests in cost and efficiency to not resolve an RPI issue when “it would not create a time bar or estoppel under 35 U.S.C. § 315” in that proceeding. *SharkNinja*, Paper 11; *see also Unified Patents, LLC v. MemoryWeb, LLC*, IPR2021-01413, Paper 76 at (USPTO Director May 22, 2023) (non-precedential). We do not address whether KioSoft and TechTrex are unnamed real-parties-in-interest because, even if they were, it would not create a time bar or estoppel under 35 U.S.C. § 315.

*B. Alleged Failure to Comply with Word Limits*

Patent Owner argues that the Petition should not consider the Petition because the Petition violates 37 C.F.R. § 42.24, which sets a 14,000-word limit for a petition. Prelim. Resp. 10–11. Petitioner certifies that the Petition contains 13,997 words. Pet. 73. Patent Owner alleges that the Petition contains more than the 14,000 words because Petitioner’s 13,997-word count does not include the numerous words in an image of a block quotation located at the top of page 73 of the Petition. Prelim. Resp. 10. Citing the Board’s 2019 Consolidated Trial Practice Guide<sup>1</sup> (“TPG”), Patent Owner argues that the Petition should not be considered. *Id.*

The Consolidate Trial Practice Guide states:

[W]hen certifying word count, a party need not go beyond the routine word count supplied by their word processing program. Parties should not abuse the process. Excessive words in figures, drawings, or images, deleting spacing between words, or using excessive acronyms or abbreviations for word phrases,

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<sup>1</sup> Available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf?MURL=TrialPracticeGuideConsolidated>.

in order to circumvent the rules on word count, may lead to a party's brief not being considered. *See, e.g., Pi-Net Int'l, Inc. v. JPMorgan Chase & Co.*, 600 F. App'x 774 (Fed. Cir. 2015). . . . If a party feels that it would suffer undue prejudice from an opposing party's alleged word count limit violation or abuse, that party should raise the issue with the Board promptly after discovering the issue. The Board expects the parties to take reasonable steps to remedy any such issues before approaching the Board. If an opposing party raises a word count limit violation or abuse, the Board will consider such a violation or abuse on a case-by-case basis.

TPG, 40. The block quotation image on page 73 of the Petition contains approximately 105 words. On this record, whether or not Petitioner accounts for these words in its certification is unclear.

In any event, Patent Owner does not allege that it has suffered any undue prejudice from the extra 102 words. Nor does Patent Owner indicate that it promptly raised the issue to allow for Petitioner to take reasonable steps to remedy the issue. Under the circumstances in this case, we are not persuaded the Petitioner is abusing the process by including excessive words in the image so as to warrant not considering the Petition.

During trial, all future papers must comply with applicable word-count limits and the parties must avoid images of block quotations, so that the words of the quotation are included in word-count limits.

### *C. Legal Standards*

“In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic*, 815 F.3d at 1363 (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)); *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the

burden of proof in *inter partes* review). Although we may indicate in this Decision that certain Patent Owner arguments are not persuasive, in doing so we do not shift the ultimate burden from Petitioner.

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR*, 550 U.S. at 416 (citing *U.S. v. Adams*, 383 U.S. 39, 50–51 (1966)). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Here, the present record contains no evidence of objective indicia of non-obviousness.

#### *D. Level of Ordinary Skill in the Art*

Petitioner asserts that a person of ordinary skill in the art “would have had a bachelor’s degree in electrical engineering, computer engineering, computer science, or equivalent training, and approximately three years of experience with electronic payment systems, vending machine technologies, or distributed network systems,” and that “[a]dditional education can

substitute for less work experience, and vice versa.” Pet. 11 (citing Ex. 1003 ¶ 19).

Patent Owner does not provide a description of the level of ordinary skill in the art. *See generally* Prelim. Resp.

For purposes of this Decision, we adopt Petitioner’s assessment of the level of ordinary skill in the art as it is consistent with the ’045 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

### *E. Claim Construction*

In this *inter partes* review, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). In applying this standard, we generally give claim terms their ordinary and customary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc).

Neither party provides an explicit construction of any claim terms. Petitioner asserts that “the terms of the challenged claims should be given their plain and ordinary meaning, and no terms require specific construction.” Pet. 11. Patent Owner asserts that “no constructions are necessary to deny institution because the petition facially fails to show that the references satisfy the plain language of the claims.” Prelim. Resp. 6.

Except to the extent as discussed in our patentability analysis below, we do not need to construe any terms explicitly to reach our decision. *See Realtime Data LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy,

and only to the extent necessary to resolve the controversy.’’ (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

*F. Ground 1: Anticipation by and Obviouness over Low*

Petitioner contends that claims 1 and 18 are anticipated by and obvious over Low. Pet. 17–32.

*1. Overview of Low (Ex. 1004)*

Low is titled “Electronic Payments to Non-Internet Connected Devices Systems and Methods” and relates to “wireless electronic payments to non-Internet connected machines through user devices.” Ex. 1004, code (54), 1:17–20. Specifically, Low discloses a system that permits a user to select, purchase, and dispense products for sale at a vending machine, while using a user device such as a smart phone for electronic payment. *Id.* at 2:11–16, 5:19–22. Figure 1 of Low, reproduced below, is a block diagram of the disclosed system. *Id.* at 2:63–63.

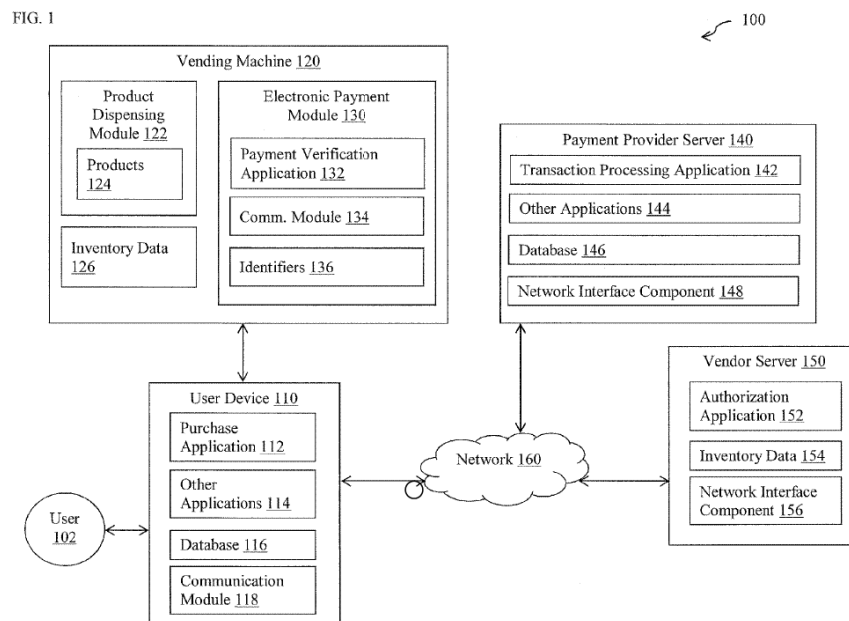


Figure 1 shows networked system environment 100 including user 102 utilizing user device 110 with vending machine 120. *Id.* at 3:20–21.

Vending machine 120 includes product dispensing module 122, e.g., a keypad, touchscreen, or display, for a user to make selections, purchase, and dispense products 124. *Id.* at 5:19–24. Vending machine 120 further includes electronic payment module 130 which enables user 102 to make electronic payments for products 124 in the absence of physical money. *Id.* at 5:44–46. User device 110 contains purchase application 112 which interfaces with a corresponding module at vending machine 120. *Id.* at 4:5–13. User device 110 communicates over network 160 with payment providing server 140 and vendor server 150. *Id.* at 3:21–23. Vending machine 120 does not have Internet connection with network 160, but does have wireless communication such as Bluetooth with user device 110. *Id.* at 4:59–64.

Low discloses that vending machine 120 and user device 110 are paired, e.g., through Bluetooth, and user device 110 transmits a user identifier to vending machine 120 for display. *Id.* at 2:38–41. During display of the user identifier, user 102 can select items for purchase from vending machine 120. *Id.* at 2:41–43. Vending machine 120 then transmits a purchase request, such as product name, product price, product code, a machine identifier, and/or a transaction number back to user device 110. *Id.* at 2:43–46. User device 110 displays the purchase request and, if the information is correct, user 102 selects a payment button or option on user device 110, which communicates the payment request to payment provider server 140. *Id.* at 2:46–49, 9:24–28. If transaction processing application 142 in payment provider server 140 approves the purchase request, an approval including a payment authorization is communicated to user device 110 for transmission to vending machine 120. *Id.* at 9:39–49.

After vending machine 120 receives a payment authorization, vending machine 120 dispenses the purchased item of products 124. *Id.* at 9:55–58.

2. *Claim 1*

Petitioner contends that claim 1 is anticipated and obvious over Low. Pet. 19–28. Petitioner’s analysis maps each limitation of claim 1 to Low’s teaching and cites to supporting testimony of Dr. Neuman. *See id.* After reviewing Petitioner’s analysis and evidence, and taking into account Patent Owner’s argument, we determine that Petitioner shows a reasonable likelihood that claim 1 is unpatentable. We address each of Patent Owner’s argument below.

a) “*an adapter module*”

Claim 1 recites:

an adapter module associated with the payment accepting unit, said adapter having short-range communication technology for communicating with the short-range communication technology of the mobile device.

Ex. 1001, 32:28–35.

Petitioner equates the claimed adapter module to Low’s electronic payment module 130. Pet. 21–22 (citing Ex. 1004, 4:64–67, 5:10–18, 5:14–17, 5:44–46, 5:49–53, 6:9–16; Ex. 1003 ¶¶ 86–89).

Patent Owner argues that Low’s electronic payment module 13 is not an adapter module as required by claim 1. Prelim. Resp. 12–15. According to Patent Owner the plain language of the claim requires that

an adapter module ***adapts*** a function of a machine. It uses the internet via mobile devices to connect a machine and it simulates physical forms of payment—such as coins and cash—in order to enable the machine to operate.

Prelim. Resp. 12; *see also id.* 12–13 (citing Ex. 1001, 11:59–12:14, 19:64–67). Patent Owner argues that the Petition is deficient because it does not show that Low’s electronic payment module 130 is such an adapter module. Prelim. Resp. 12–13.

On this record, Patent Owner’s argument is unpersuasive. We do not agree that the plain language of the term “adapter module” requires, for example, the adapter module to simulate physical forms of payment, such as coins and cash. We see nothing in the plain language of claim 1 that requires such. *See generally* Ex. 1001, 32:28–35. Nor do we agree that, because the ’045 patent discloses an “exemplary adapter module” that simulates physical forms of payment (*id.* at 11:62, 19:58–59), we should read such a limitation into claim 1. Our reviewing court has repeatedly “cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification.” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346–47 (Fed. Cir. 2015); *SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) (noting that “it is important not to import into a claim limitations that are not a part of the claim”). “[I]t is the *claims*, not the written description, which define the scope of the patent right.” *Williamson*, 792 F.3d at 1346–47; *see also Phillips*, 415 F.3d at 1312 (noting that “[i]t is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude’”). Thus, “a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.” *SuperGuide*, 358 F.3d at 875.

At this stage of the proceeding, we are persuaded by Petitioner that Low’s electronic payment module 130 meets the claimed adapter module.

As Petitioner points out, the '045 patent describes the adapter module as “a physical device that is installed in a machine.” Pet. 22 (Ex. 1001, 11:59–61). Low describes electronic payment module 130 as being part of a vending machine and having at least one communication module 134 for communicating with a user device. Ex. 1001, 5:44–46, 6:9–11.

Communication module 134 includes various types of short-range communication devices, such as Bluetooth. *Id.* at 6:11–16.

On this record, we determine that Petitioner sufficiently shows that Low discloses the claimed adapter module.

*b) “a server”*

Claim 1 requires “a server having long-range communication technology for communicating with the long-range communication technology of the mobile device.” Ex. 1001, 32:36–38. Claim 1 also requires the server to receive an authorization request for funds from the mobile device and to send an authorization grant for funds to the mobile device using long-range communication technology. *Id.* at 32:41–46.

Petitioner equates the claimed server to Low’s payment provider server 140 and vendor server 150, collectively. Pet. 23 (citing Ex. 1004, 3:18–25, 7:40–50, 8:48–57, and FIG. 4.; Ex. 1003 ¶¶ 90–92). Petitioner alleges that the '045 patent discloses that the server may be comprised of multiple servers. Pet. 23, n.2 (citing Ex. 1001, 19:51–54). Petitioner, however, only points to Low’s payment provider server 140 as meeting the claimed receiving of an authorization request for funds and sending of an authorization grant, required by claim 1. Pet. 25–27; *see* Prelim. Resp. 19, n.3.

Patent Owner argues that Low's payment provider server 140 and vendor server 150 cannot meet the claimed server because they Low's servers are separate components. Patent Owner contends:

This attempt to recast separate, independent components as "a server" defies credulity. Far from being part of "a server," the payment provider server 140 and the vendor server 150 are facially distinct servers operated by distinct entities to perform distinct functions. . . . Drawing a red box around two distinct servers does not transform them into "a server" as recited in claims 1 and 18.

Prelim. Resp. 20 (citations omitted).

In any event, as Patent Owner acknowledges, Petitioner relies upon only Low's payment provider server 140 as meeting the claimed server receiving an authorization request for funds and sending an authorization grant, required by claim 1. Pet. 25–27 (citing Ex. 1004, 5:61–69, 9:24–62; 10:41–61); *see* Prelim. Resp. 19, n.3. Patent Owner does not dispute that Low's payment provider server 140 is a single server that performs both functions recited by claim 1 — receiving an authorization request for funds from the mobile device and sending an authorization grant for funds to the mobile device using long-range communication technology.

On this record, we determine that Petitioner sufficiently shows that Low discloses the claimed server.

c) *"in response to receiving user input . . . if said adapter module has received said authorization grant"*

Claim 1 recites:

wherein the payment accepting unit dispenses the at least one product or service in response to receiving user input to the payment accepting unit input mechanism if said adapter module has received said authorization grant.

Ex. 1001, 32:49–53.

Petitioner contends that Low meets this limitation because Low discloses:

Once the user has used the product selection means “*input mechanism*” to select a product, and once the purchase request has been sent to the server via the user device and a payment authorization has been forwarded back to the electronic payment module (“*adapter module*”) of the vending machine via the user device, the “vending machine 120 may dispense the purchased item of products 124.” [Ex. 1004,] 9:39-62; *see also id.* at 10:55-61; 12:9-25; Ex. 1003, ¶¶103-105.

Pet. 28.

Patent Owner argues that this limitation requires that the funds authorization grant is received by the adapter module before, or at the same time as, the payment accepting unit input mechanism receives the user input. Prelim. Resp. 27–28; *see also id.* at 24.

On this record, Patent Owner’s argument is unpersuasive. Patent Owner does not sufficiently explain why the plain language of claim 1 requires receiving the funds authorization grant before or at the same time as receiving the user input. Claim 1 recites that the dispensing of the product is in response to receiving a user input and is conditioned on whether the adapter module has received the funds authorization grant, but claim 1 does not specify that the funds authorization grant must be received, for example, before receiving the user input. *See* Ex. 1001, 32:49–53.

On this record, we determine that Petitioner sufficiently shows that Low discloses that the payment accepting unit dispense a product in response to receiving user input to the payment accepting unit input mechanism if said adapter module has received the authorization grant.

*d) “an authorization request for funds”*

Claim 1 recites:

said adapter module for sending an authorization request for funds to the mobile device using short-range communication technology, the mobile device forwarding said authorization request for funds to said server using long-range communication technology.

Ex. 1001, 32:39–43.

Petitioner equates the claim authorization request for funds to Low’s purchase request. Pet. 24 (citing Ex. 1004, 2:38–46, 4:45–56, 5:61–6:9; Ex. 1003 ¶¶ 93–95). Low discloses that the electronic payment module 130’s payment verification application transmits a “purchase request” to the user device, and that the request includes “a product name, product price, product code, a machine identifier, and/or a transaction number to user device 110.”

Ex. 1004, 5:66–6:3, 2:38–46.

Patent Owner argues that Low’s purchase request is an authorization request for a transaction because it is sent after a user selects a product and includes transaction specific information, such as a product name. Resp. 15–17. According to Patent Owner, claim 1’s “authorization request *for funds* is distinguishable from an authorization request *for a transaction*. *Id.* at 16 (emphasis original). Patent Owner argues:

As recited [by claim 1], a product or service is dispensed in response to receiving user input to the payment accepting unit input mechanism if the adapter module has received the authorization grant. That is, the funds authorization grant is received by the adapter module before, or at the same time as, the claimed user input—which Petitioner maps to the user selecting a product. . . . A purchase request cannot serve as the authorization request for funds when the funds grant must be received no later than the product selection Petitioner relies on as user input.

Prelim Resp. 16 (citations omitted). Patent Owner notes that the '045 patent states: “[s]ignificantly, the AuthRequest is a request for authorization of funds, not a request for authorization of a transaction. The purpose of the funds is irrelevant to the server 30.” Prelim. Resp. 16 (quoting Ex. 1001, 14:53–56).

On this record, Patent Owner’s argument is unpersuasive. As explained above, we do not agree that the plain language of claim 1 requires the funds authorization grant to be received by the adapter module before, or at the same time, as the user input. We, thus, do not agree that Low’s purchase request, which is sent after the user input, cannot meet the claimed authorization request for funds.

On this record, we determine that Petitioner sufficiently shows that Low discloses the claimed authorization request for funds.

*e) Conclusion for Claim 1*

After considering the Petition and the evidence of record, and taking into account the Preliminary Response, we determine the information presented in the Petition shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of claim 1.

*3. Claim 18*

“When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.108(a). We must “either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution.” TGP at 5–6, 64; *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359–60 (Fed. Cir. 2018) (stating a decision to institute is “a simple yes-or-

no institution choice respecting a petition, embracing all challenges included in the petition”). Thus, because we have decided to grant institution based upon anticipation by and obviousness over Low with respect to claim 1, we must do the same for claim 18.

Patent Owner at this stage does not raise any additional arguments specifically directed to claim 18.

### *G. Remaining Grounds*

As discussed above, because we have decided to institute *inter partes* review based upon ground 1, we must do the same for the remaining grounds as well, as institution must include all challenged claims under all asserted grounds.

We note that for the remaining claims and grounds, Petitioner has mapped the limitations of the challenged claims to the teachings of the prior art combinations and articulated reasons why one of ordinary skill in the art would have combined the references, supporting its contentions with citations to its expert’s declaration. *See* Pet. 32–83.

Patent Owner at this stage does not raise any additional arguments specifically directed to the remaining grounds.

## III. CONCLUSION

After considering the evidence and arguments presented in the Petition, Preliminary Response, Preliminary Reply, and Preliminary Sur-reply, we determine that the information presented shows a reasonable likelihood that Petitioner would prevail in establishing that at least claim 1 is unpatentable.

#### IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1–26 of the '045 patent on the unpatentability grounds asserted in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

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