

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

RFCYBER CORP.,
Patent Owner.

IPR2022-01239
Patent 10,600,046 B2

Before JOSIAH C. COCKS, PATRICK R. SCANLON, and
KEVIN W. CHERRY, *Administrative Patent Judges*.

SCANLON, *Administrative Patent Judge*.

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

I. INTRODUCTION

Apple Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–5, 12–14, 17, and 18 of U.S. Patent No. 10,600,046 B2 (Ex. 1001, “the ’046 patent”). RFCyber Corp. (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2022). To institute an *inter partes* review, we must determine that the information presented in the Petition shows “a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons set forth below, we determine that the information presented in the Petition establishes a reasonable likelihood that Petitioner will prevail with respect to at least one challenged claim. Accordingly, we institute an *inter partes* review of claims 1–5, 12–14, 17, and 18 based on the grounds set forth in the Petition.

II. BACKGROUND

A. *Real Parties in Interest*

Petitioner identifies itself as the real parties in interest. Pet. 69. Patent Owner identifies itself as the real party in interest. Paper 5, 1.

B. *Related Matters*

The parties identify the following proceedings as related matters involving the ’046 patent: *RF Cyber Corp. v. Apple Inc.*, Case No. 6:21-cv-00916-ADA (W.D. Tex.) (the “District Court Case”); and *RF Cyber Corp. v. Visa U.S.A. Inc.*, Case No. 6:22-cv-00697 (W.D. Tex.). Pet. 69; Paper 5, 1. In addition, Petitioner identifies several other matters involving the ’046 patent that have been dismissed or terminated. Pet. 69–70.

C. The '046 Patent

The '046 patent relates to electronic commerce and, more particularly, to settling payments “using a mobile device reading electronic bills or invoices off from another mobile device in a near field communication range.” Ex. 1001, 1:16–21. In general, the invention includes a first mobile device that generates an electronic invoice and can be part of a point of sale (“POS”) machine. *Id.* at 1:56–58, 2:1–3. The first mobile device is embedded with a secure element and executes a software module. *Id.* at 1:57–58, 2:55–59. When the first mobile device is brought to a consumer using a second mobile device, the electronic invoice is read wirelessly into the second mobile device. *Id.* at 1:59–63. The second mobile device is a near field communication (“NFC”) device “configured to execute an application that communicates with the software module in the first mobile device to read the data off from the first mobile device.” *Id.* at 2:28–30, 2:65–3:1.

The user is then able to verify the amount charged and authorize payment, after which the second mobile device “communicates with a payment gateway or network for payment that is configured to proceed with the payment in accordance with a chosen payment method.” *Id.* at 1:63–67, 2:61–64. That is, the gateway receives the payment request from the second mobile device, verifies the payment request, and sends a payment response to the user of the first mobile device after the payment request is processed. *Id.* at 3:17–31.

Figure 1A of the '046 patent is reproduced below.

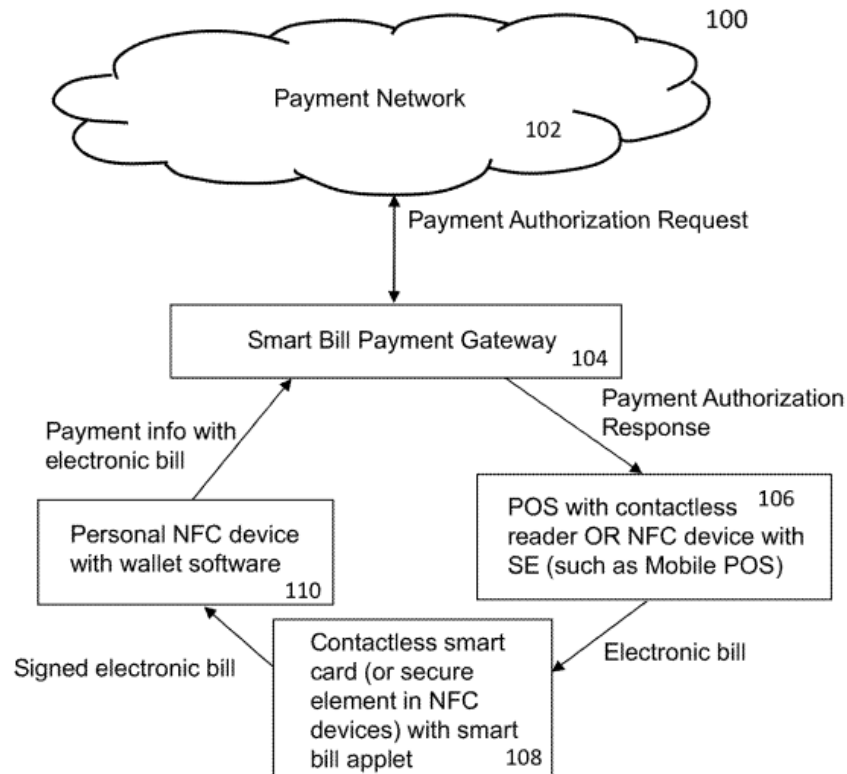


FIG. 1A

Figure 1A shows system configuration 100, which is one embodiment of the invention. Ex. 1001, 5:29–30. System configuration 100 includes network 102, which provides services by a financial institution to electronically transfer money or settle payments. *Id.* at 5:30–34. Payment gateway 104 comprises one or more servers configured to provide an application that may be installed on a user's mobile device. *Id.* at 5:52–56. The application allows a user to authorize payment of an electronic invoice. *Id.* at 5:60–62.

System configuration 100 also includes POS device 106 at a point of sale. *Id.* at 6:6–7. POS device 106 generates an electronic bill or invoice that is loaded onto portable device 108, such as a contactless card or an NFC

device, which contacts a user's NFC device. *Id.* at 6:10–14. In one embodiment, “the POS device is a single device embedded with a secure element. The single device may be an NFC device that is used to enter information to generate an invoice.” *Id.* at 6:15–18. This device is brought to the customer for authorization and payment. *Id.* at 6:22–23.

Alternatively, “the POS device includes a stationary device corresponding to 106 of FIG. 1A and one or more contactless cards corresponding to 108 of FIG. 1A.” *Id.* at 6:23–26. In this case, “[t]he stationary device is used by the cash[i]er to enter charging information to generate an invoice. A contactless card is loaded with the electronic invoice and brought to the customer for authorization and payment.” *Id.* at 6:26–30.

Device 110 is a personal NFC device with wallet software. *Id.* at Fig. 1A. Specifically, device 110 “is configured to function as an electronic purse or e-purse that may be used to directly settle a charge being displayed on a display screen thereof.” *Id.* at 8:25–28.

To settle a payment, the merchant, such as a waiter or cashier at a restaurant, causes POS device 106 to generate an electronic bill that is transported to a contactless card. *Id.* at 7:19–22. The contactless card is then presented to the customer who uses his or her mobile device to read the contactless card. *Id.* at 7:24–26. Upon detecting the contactless card in the near field, the application on the user's mobile device reads data pertaining to the electronic bill from the contactless card and subsequently displays the electronic bill on a screen of the mobile device for the customer to verify. *Id.* at 7:28–33. The customer then chooses a method for settling the bill, such as an e-purse already created in the mobile device, cash, traditional credit or debit card, and electronic transfer. *Id.* at 7:46–53.

When selecting to pay the bill via the e-purse, the customer enters the amount to be paid against the bill; the customer may enter more than what is being charged in the bill as a tip or gratuity. *Id.* at 7:57–61. Once the customer has entered the total amount to be paid, the application on the user’s mobile device sends a payment request to gateway or server 104 for processing. *Id.* at 7:57–61. “[T]he server 104 receives the payment request authorized by the consumer and proceeds with the payment request in conjunction with the payment network 102,” and “[o]nce the transaction is complete or denied, the server 104 sends a notice to the merchant.” *Id.* at 8:17–24.

Figure 6A of the ’046 patent is reproduced below.

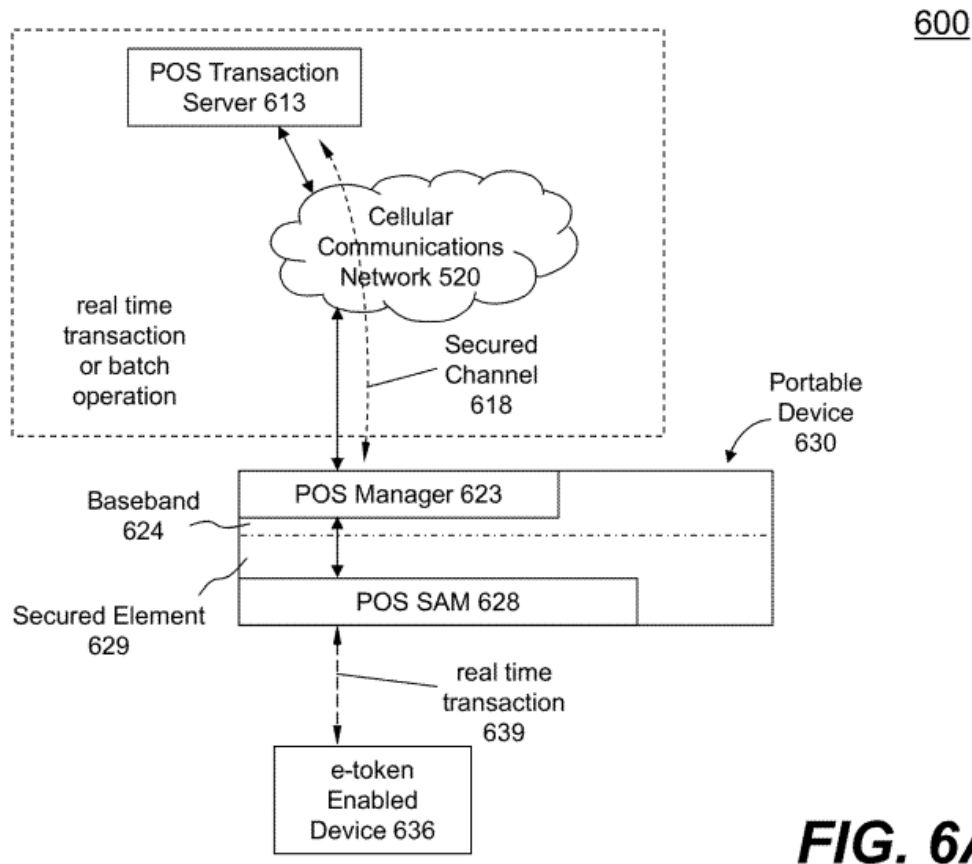


Figure 6A “is a diagram showing an exemplary architecture, in which a portable device is enabled as a mobile POS conducting e-commerce and

m-commerce.” Ex. 1001, 4:32–35. Specifically, exemplary architecture 600 includes portable device 630 that includes baseband 624 and secured element 629. *Id.* at 18:65–19:3. POS manager 623 is installed in baseband 623, and POS SAM¹ 628 is installed in secured element 629 to enable portable device 630 to act as a mobile POS. *Id.* at 19:3–6. This configuration allows real time transaction 639 to be conducted between portable device 630 and e-token enabled device 636, which can be a single functional card or a portable device enabled with an e-purse. *Id.* at 19:7–10.

Real time transaction 639 can be conducted without the portable device connecting to POS transaction server 613, in which case records of accumulated offline transactions are uploaded via secured channel 618 to POS transaction server 613 for settlement. *Id.* at 19:14–16, 9:23–27. However, portable device 630 may connect to POS transaction servers 613 over cellular network 520 in certain instances. *Id.* at 19:16–18.

D. Challenged Claims

Petitioner challenges claims 1–5, 12–14, 17, and 18, of which claims 1, 12, and 18 are independent. Claim 1, reproduced below, is illustrative.

1. A method for mobile payment, the method comprising:

causing a mobile device to capture data directly from a tag physically presented thereto, wherein the tag receives the data directly from a POS device and allows the mobile device to capture the data, the data embedded in the tag includes an electronic invoice and settlement information with a merchant associated with the POS device;

extracting the electronic invoice from the captured data in the mobile device; displaying the electronic invoice on a display

¹ A “POS SAM” refers to a mobile POS application applet. Ex. 1001, 18:13–14. Although the acronym “SAM” is not defined in the ’046 patent, it appears to refer to a Security Authentication Module. *See* Ex. 1016, 2.

of the mobile device to show an amount to be paid by a user of the mobile device, wherein the mobile device is configured to execute an installed application therein to capture the data from the tag;

receiving an entry by the mobile device, the entry including the amount for the invoice and optionally an additional amount from the user;

calculating a total amount by adding the additional amount to the amount in the electronic invoice;

generating a payment request in the mobile device in response to the electronic invoice after the user has chosen an electronic purse (e-purse) maintained locally in the mobile device;

displaying the electronic invoice on the display of the mobile device for the user to verify the payment request

verifying the total amount with a balance in the e-purse, wherein said verifying the total amount with a balance in the e-purse is performed within the mobile device without sending the payment request to a payment gateway;

displaying a denial of the payment request when the balance is less than the total amount;

sending the payment request from the mobile device to the payment gateway, wherein the balance is sufficient to honor the payment request, the payment gateway sends a message directly to the POS device that a monetary transaction per the payment request sent from the mobile device has been successfully completed; and

displaying a confirmation in the mobile device that the balance in the e-purse has been reduced by the total amount.

Ex. 1001, 25:20–63.

E. Asserted Grounds of Unpatentability

Petitioner contends that the challenged claims are unpatentable based on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–5, 12–14	103	Laracey, ² Jogu, ³
17	103	Laracey, Jogu, Tang ⁴
18	103	Laracey, Jogu, Dorsey ⁵

Pet. 8. Petitioner relies on the Declaration of Gerald W. Smith (Ex. 1003) to support its challenges.

III. ANALYSIS

A. Level of Ordinary Skill in the Art

In determining whether an invention would have been obvious at the time it was made, 35 U.S.C. § 103 requires us to resolve the level of ordinary skill in the pertinent art at the time of the invention. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). The person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). Factors that may be considered in determining the level of ordinary skill in the art include, but are not limited to, the types of problems encountered in the art, the sophistication of the technology, and educational level of active workers in the field. *Id.* In a given case, one or more factors may predominate. *Id.*

Petitioner contends that a person having ordinary skill in the art “would have had at least a bachelor’s degree in computer science, computer engineering, or equivalent with at least one year of experience in the field of mobile payments,” and “[a]dditional education or experience might substitute for the above requirements.” Pet. 6–7 (citing Ex. 1003 ¶¶ 34–35).

² US 2011/0251892, published Oct. 13, 2011 (Ex. 1004).

³ JP 4901053, published Mar. 21, 2012 (Ex. 1005).

⁴ WO 2009/116954 A2, published Sept. 24, 2009 (Ex. 1006).

⁵ US 9,916,581 B2, issued Mar. 13, 2018 (Ex. 1007).

Patent Owner indicates that it uses Petitioner's proposed level of ordinary skill in the art for the purposes of its Preliminary Response only. Prelim. Resp. 4.

Based on our review of the record before us, we determine that Petitioner's stated level of ordinary skill in the art is reasonable because it appears consistent with the evidence of record, including the asserted prior art. Accordingly, for the purposes of this Decision, we adopt Petitioner's definition.

B. Claim Construction

In *inter partes* reviews, the Board interprets claim language using the district-court-type standard, as described in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). See 37 C.F.R. § 42.100(b). Under that 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, in light of the language of the claims, the specification, and the prosecution history. See *Phillips*, 415 F.3d at 1313–14. Although extrinsic evidence, when available, may also be useful when construing claim terms under this standard, extrinsic evidence should be considered in the context of the intrinsic evidence. See *id.* at 1317–19.

Petitioner contends that, in the District Court Case, the parties have agreed to construe the claim term “payment gateway” as a “server or collection of servers for settling a payment.” Pet. 9 (citing Ex. 1016, 2). Petitioner further contends that the parties are disputing the constructions of the claim terms “e-purse,” “e-purse applet,” and “application” in the District Court Case, but the differences between the proposed construction need not be resolved for this proceeding because its asserted grounds of unpatentability satisfy both Patent Owner's and Petitioner's proposed

constructions. *Id.* at 9–10. Patent Owner argues that, for the purposes of its Preliminary Response only, claim construction is not required to resolve any issues. Prelim, Resp. 4.

On the present record, we do not discern a need to construe explicitly any claim language because doing so would have no effect on our analyses below of Petitioner’s asserted grounds and will not assist in resolving the present controversy between the parties. *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)).

C. Asserted Obviousness Based on Laracey and Jogu

Petitioner asserts that claims 1–5 and 12–14 are unpatentable under 35 U.S.C. § 103 based on Laracey and Jogu. Pet. 10–54. Patent Owner provides arguments addressing this asserted ground of unpatentability. Prelim. Resp. 4–8. We first summarize the references and then address the parties’ contentions.

1. Laracey

Laracey, titled “Mobile Phone Payment Processing Methods and Systems,” was published on October 13, 2011. Ex. 1004, codes (54), (43). Laracey relates to “using mobile devices to conduct payment transactions at merchant locations including brick and mortar locations and remote locations as well as for person to person transactions.” *Id.*, code (57). Figure 1 of Laracey is reproduced below.

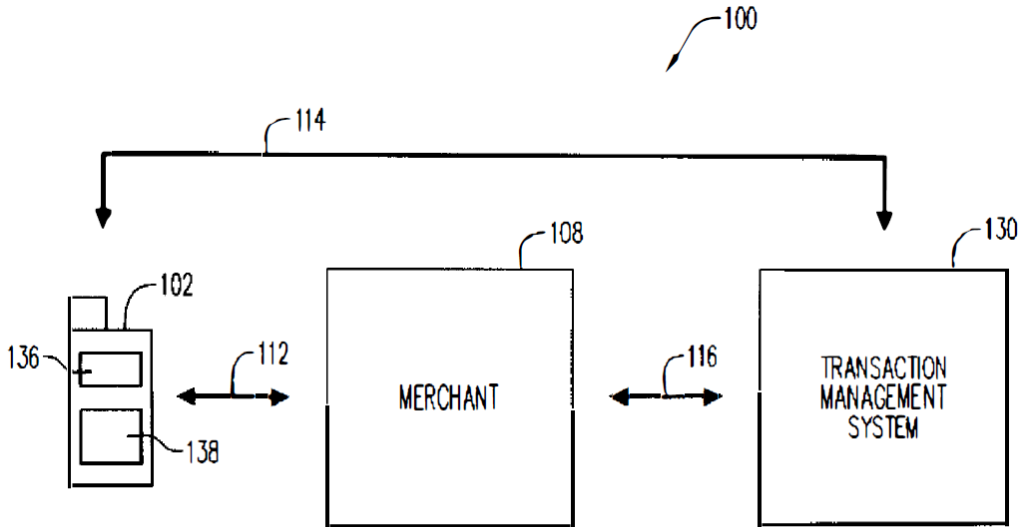


FIG. 1

Figure 1 is a block diagram depicting payment system 100. Ex. 1004 ¶¶ 7, 27. A user, referred to as the customer, uses mobile device 102 (such as a mobile telephone) to conduct a purchase transaction with merchant 108. *Id.* ¶ 27. For a point-of-sale purchase, merchant 108 totals the items to be purchased and prompts the customer to select a payment option, such as the mobile payment option disclosed by Laracey. *Id.* ¶ 28. Alternatively, rather than requiring the customer to select the mobile payment option, the choice can be made by the customer scanning, capturing, or entering a checkout identifier. *Id.* ¶ 29. When the mobile payment option is selected, merchant 108 transmits a merchant payment authorization request message to transaction management system 130 via path 116. *Id.* ¶ 30. This message may include a merchant identifier, the amount due, and a unique checkout token. *Id.*

The customer, either before or after selecting the mobile payment option, performs an authentication process to confirm their identity and

authority to conduct transaction via the mobile payment process. *Id.* ¶ 33. “After a successful authentication process, the customer is prompted to scan, capture (or otherwise enter) a checkout token from a device associated with the merchant 108 (shown as interaction 112 between the mobile device 102 and the merchant 108).” *Id.* ¶ 35. Mobile device 102 then transmits the checkout token to transaction management system 130 in a customer transaction lookup request message via path 114. *Id.* The checkout token can be either a static or dynamic token. *Id.* ¶ 36.

When a static token is used, transaction management system 130 matches information in the customer transaction lookup request with information in the merchant payment authorization request. *Id.* Upon finding a match, transaction management system 130 transmits a transaction detail message to mobile device 102 via path 114 that provides the customer with details about the transaction. *Id.* When a dynamic token is used, checkout processing may proceed without a customer transaction lookup request message being transmitted to transaction management system 130. *Id.* ¶ 38.

Next, the customer causes a customer payment authorization request message to be submitted from mobile device 102 to transaction management system 130. *Id.* ¶ 39. Transaction management system 130 then sends an authorization approval request message to one or more payment processing networks for the authorization, clearing, and settlement of funds for the transaction. *Id.* ¶ 40.

2. *Jogu*

Jogu relates to a payment method using a mobile phone, and, more specifically, a service that mediates payments at virtual stores and brick-and-mortar stores on the Internet. Ex. 1005, 3. In one embodiment, a user orders

a product or service from virtual store 24 using mobile phone 13 and selects the mobile phone payment method. *Id.* at 5, Fig. 5. Upon receiving the billing request, mobile phone company 10 either notifies virtual store 24 that the service cannot be used if there is a problem with the user's status, or sends an electronic invoice to mobile phone 13 if there is no problem with the user's status. *Id.* at 5–6. When the user approves payment of the invoice, mobile phone 13 verifies the prepaid balance and, if the prepaid balance is less than the payment amount, notifies mobile phone company 10 that the payment cannot be made due to insufficient balance. *Id.* at 6. On the other hand, if the prepaid balance is more than the payment amount, mobile phone company 10 is notified that the payment is approved. *Id.*

3. *Independent Claim 1*

Petitioner contends that the proposed combination of Laracey and Jogu discloses the limitations of claim 1. Pet. 14–47. To support its arguments, Petitioner identifies certain passages in the cited references and explains the significance of each passage with respect to the corresponding claim limitation. *Id.* Petitioner also articulates reasons to combine the relied-upon aspects of Laracey and Jogu with a reasonable expectation of success. *Id.* at 40–42, 46–47. Patent Owner argues that Petitioner's combination fails with respect to the claim 1 limitation “verifying the total amount with a balance in the e-purse, wherein said verifying the total amount with a balance in the e-purse is performed within the mobile device without sending the payment request to a payment gateway” (the “verifying limitation”). Prelim. Resp. 4–8.

We have reviewed Petitioner's contentions with respect to the limitations of claim 1, and for the reasons discussed below, we determine that the Petition shows a reasonable likelihood that Petitioner would prevail

with respect to the contention that claim 1 would have been obvious based on Laracey and Jogu. *See* Pet. 14–47. We address Patent Owner’s arguments below.

a) The Verifying Limitation

Regarding the verifying limitation, Petitioner first argues that Laracey discloses that transaction management system 130 is in communication with one or more payment servers and receives a payment authorization message from a mobile device. Pet. 34 (citing Ex. 1004 ¶¶ 39–40). Thus, in Petitioner’s view, “transaction management system 130 in conjunction with one or more payment processing networks is a *payment gateway* as claimed at least because they comprise a collection of servers for settling payment.” *Id.* (citing Ex. 1003 ¶¶ 108–109).

Petitioner then argues that

it would have been obvious to modify *Laracey’s* e-purse transaction process pursuant to the teachings of *Jogu* to *verify[] the total amount with a balance in the e-purse, wherein said verifying the total amount with a balance in the e-purse is performed within the mobile device without sending the payment request to a payment gateway.*

Id. at 35. Specifically, Petitioner contends that Laracey discloses maintaining a balance for a “stored value” account, or an e-purse, and providing that balance to the user when the user is deciding which account to select for a transaction. *Id.* at 35–36 (citing Ex. 1004 ¶¶ 100, 165, Fig. 8B). Petitioner adds that, despite stressing the importance of maintaining the account balance, Laracey does not explain what happens if the user selects a stored value account that has insufficient funds for the transaction. *Id.* at 36.

Petitioner argues, however, that Jogu discloses a POS terminal that transmits a payment amount to a mobile device, which performs a balance

check for sufficient funds (i.e., determines whether the payment amount is within the current balance). *Id.* at 37–38 (citing Ex. 1005, 14, 15, Fig. 39). Petitioner further argues that Jogu discloses that the user is notified of the insufficient balance if the payment amount exceeds the balance, but the mobile device communicates with the POS terminal to continue the payment process if the balance is sufficient. *Id.* at 38 (citing Ex. 1005, 14, Fig. 23).

In view of these teachings, Petitioner argues that one of ordinary skill in the art would have been motivated to implement Jogu’s balance check in Laracey’s mobile device because this modification would have achieved the same benefits in Laracey that the balance check provides in Jogu. *Id.* at 40–41 (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007)). Petitioner also argues that one of ordinary skill in the art would have understood that Jogu’s balance check ensures that a user is informed of insufficient funds before proceeding with a transaction that will ultimately fail, which provides the benefit producing successful transactions and avoids the need to resolve an insufficient funds issue. *Id.* at 41 (citing Ex. 1003 ¶¶ 119–121). In addition, Petitioner argues that a skilled artisan “would have recognized that *Jogu*’s balance check process is particularly well-suited to *Laracey*’s system because *Laracey* expressly provides alternative account options for the user to select in the event an e-purse has insufficient funds.” *Id.* (citing Ex. 1003 ¶¶ 119–121). Petitioner asserts that there would have been a reasonable expectation of success for the proposed combination because it would have required only minor programming that was well within the ordinary skill in the art. *Id.* at 42 (citing Ex. 1003 ¶ 122).

Patent Owner argues that Laracey discloses that verification is performed by a server, specifically transaction management system 130, rather than on the mobile device. Prelim. Resp. 5–6 (citing Ex. 1004 ¶¶ 30,

33, 35, 36, 39, Fig. 1). Patent Owner adds that “Petitioner argues that Laracey teaches ‘storing’ values, but ‘storing’ values is not the claimed verification.” *Id.* at 5. This argument is not persuasive because it addresses Laracey individually and does not address Petitioner’s proposed combination of Laracey and Jogu. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (“[O]ne cannot show non-obviousness by attacking references individually where . . . the rejections are based on combinations of references.”). As discussed above, Petitioner asserts that the verifying limitation is obvious over the combination of Laracey and Jogu.

Patent Owner also argues that, given Laracey’s extensive teachings of server-side verification, “Petitioner identifies a single passage of Laracey in support of its device-side allegations” (which passage describes using a dynamic checkout token for checkout processing without messaging transaction management system 130), but “this passage does not relate to verification.” Prelim. Resp. 6–7 (quoting Ex. 1004 ¶ 38). According to Patent Owner, Petitioner ignores the last sentence of Laracey’s paragraph 38, which Patent Owner contends supports its position that Laracey requires a server for verifying transactions. *Id.* at 7 (quoting Ex. 1004 ¶ 38). Patent Owner further contends that Petitioner’s motivation to combine is supported only by its incorrect interpretation of Laracey’s dynamic token embodiment. *Id.*

At this stage of the proceeding, we do not find these arguments persuasive. First, these arguments again address Laracey individually rather than the proposed combination of Laracey and Jogu. Furthermore, Patent Owner appears to mischaracterize Petitioner’s position in arguing that Petitioner relies on Laracey’s paragraph 38 support of its device-side allegations. Although the Petition does cite paragraph 38 in support of some

of its assertions (*see, e.g.*, Pet. 16, 19, 20, 22, 23), there does not appear to be any citation to paragraph 38 in the section of the Petition addressing the verifying limitation (*see id.* at 34–42). Patent Owner does not direct us to any such citation to paragraph 38 in the Petition. *See* Prelim. Resp. 6–7. As discussed above, Petitioner relies on Jogu for disclosing using the mobile device to verifying the e-purse balance. Pet. 37–38.

Next, Patent Owner argues that Petitioner asserts that the proposed combination can “(1) *perform a balance check*, (2) *display a denial when the account balance is insufficient*, (3) *generate a payment request only when sufficient funds exist*, and (4) *reduce the account balance on the mobile device after a successful transaction to ensure the local balance is accurate*,” but does not state that the combination can perform verification as required by the claims. Prelim. Resp. 8 (quoting Pet. 37). We disagree that Petitioner fails to state that the proposed combination performs the claimed verification. Instead, as discussed above, the Petition contends that it would have been obvious to modify Laracey in view of Jogu “to *verify[] the total amount with a balance in the e-purse, wherein said verifying the total amount with a balance in the e-purse is performed within the mobile device without sending the payment request to a payment gateway*.” Pet. 35. Although Petitioner also refers to performing a balance check, we understand this terminology as intended to be comparable to verifying the total amount with the e-purse balance. Furthermore, Figure 39 of Jogu, which is cited by Petitioner, clearly describes that mobile phone device 13 *verifies* the balance after receiving the payment amount. Ex. 1005, Fig. 39. Jogu also discloses that “mobile phone 13 . . . verifies the prepaid balance.” *Id.* at 6; *see also id.* at 20 (“[D]ata processing unit 131 verifies whether or not the billed amount is within the available balance.”).

For the above reasons, we do not find Patent Owner's arguments persuasive. Instead, at this stage of the proceeding and on the current record, we determine that Petitioner has made a sufficient showing that the proposed combination of Laracey and Jogu discloses the verifying limitation.

b) The Remaining Aspects of Petitioner's Contentions

Patent Owner does not offer any arguments specifically addressing the remaining limitations of claim 1. *See generally* Prelim. Resp. We have reviewed Petitioner's contentions with respect to the remaining limitations of claim 1 and determine that the Petition provides a sufficient showing, at this stage of the proceeding, that the proposed combination of Laracey and Jogu satisfies each limitation. *See* Pet. 14–33, 42–47.

c) Conclusion

For the above reasons, we determine, based on the current record, that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that claim 1 is unpatentable over Laracey and Jogu.

4. Independent Claim 12

Independent claim 12 is substantially similar to claim 1, and, for this claim, Petitioner relies on substantially the same teachings of Laracey and Jogu relied on in connection with asserting that claim 1 is unpatentable. Pet. 52–54.

Patent Owner does not offer any arguments specifically addressing claim 12. *See generally* Prelim. Resp. To the extent Patent Owner is relying on the arguments made with respect to claim 1 as applying to claim 12, we find those arguments unpersuasive for the reasons discussed above. Furthermore, we have reviewed Petitioner's contentions with respect to claim 12 and determine that the Petition provides a sufficient showing, at

this stage of the proceeding, that the proposed combination of Laracey and Jogu satisfies each limitation. *See* Pet. 52–54.

Accordingly, we determine, based on the current record, that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that claim 12 is unpatentable over Laracey and Jogu.

5. Dependent Claims 2–5, 13, and 14

Claims 2–5 depend from claim 1, and claims 13 and 14 depend from claim 12. Because Petitioner has demonstrated a reasonable likelihood of success in proving that at least one claim of the '046 patent is unpatentable, we institute on all grounds and all claims raised in the Petition. *See SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1354, 1359–60 (2018); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting the statute to require “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”); 37 C.F.R. § 42.108(a) (“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.”). Therefore, it is not necessary for us to assess every claim challenged by Petitioner.

Nevertheless, we note that Petitioner provides reasonable and detailed explanations, supported with the testimony of Mr. Smith, indicating where the references teach or suggest the limitations of claims 2–5, 13, and 14. Pet. 48–52, 54. Further, Patent Owner offers no particular arguments with respect to claims 2–5, 13, and 14 for us to consider at this stage of the proceeding. *See generally* Prelim. Resp. We have reviewed Petitioner’s contentions with respect to these claims and determine that the information presented in the Petition establishes that there is a reasonable likelihood that

Petitioner would prevail in its assertion that claims 2–5, 13, and 14 are unpatentable over the combination of Laracey and Jogu.

D. Remaining Grounds

Petitioner also challenges claim 17, which depends from claim 12, as unpatentable under 35 U.S.C. § 103 based on the combination of Laracey, Jogu, and Tang, and independent claim 18 as unpatentable under 35 U.S.C. § 103 based on the combination of Laracey, Jogu, and Dorsey. Pet. 54–65.

Petitioner relies on Tang as disclosing a mobile device transmitting financial transaction data to a remote server via a secured channel. *Id.* at 57 (citing Ex. 1006, 12). Petitioner also provides reasons, supported with the testimony of Mr. Smith, for why it would have been obvious to one of ordinary skill in the art to combine Tang with Laracey with a reasonable expectation of success. *Id.* at 58 (citing Ex. 1003 ¶¶ 144–147).

Independent claim 18 is substantially similar to claims 1 and 12, although claim 18 recites “the additional amount is added optionally by the user, after the user of the mobile devices verifies the electronic invoice displayed on the mobile device and authorizes a payment to the electronic invoice.” Ex. 1001, 28:11–14. Petitioner relies on Dorsey as disclosing this temporal variation on the additional amount or tip. Pet. 63–65 (citing Ex. 1007, 19:17–20, Fig. 16D; Ex. 1003 ¶¶ 155–157). Petitioner also provides reasons, supported with the testimony of Mr. Smith, for why it would have been obvious to one of ordinary skill in the art to combine Laracey and Dorsey with a reasonable expectation of success. *Id.* (citing Ex. 1003 ¶¶ 155–157).

On the current record, we find Petitioner’s contentions sufficiently persuasive at this stage of the proceeding. Patent Owner does not argue at this stage that these two proposed combinations fail to disclose the subject

matter of claim 17 or claim 18, respectively. To the extent Patent Owner is relying on the arguments made with respect to claim 1 as applying to these grounds, we find those arguments unpersuasive for the reasons discussed above.

Furthermore, because Petitioner has demonstrated a reasonable likelihood of success in proving that at least one claim of the '046 patent is unpatentable (*see supra* § III.C), we include these grounds in the instituted *inter partes* review. *See SAS*, 138 S. Ct. at 1354, 1359–60; *PGS Geophysical*, 891 F.3d at 1360; 37 C.F.R. § 42.108(a).

IV. CONCLUSION

After considering the evidence and arguments of record, we determine that Petitioner has demonstrated a reasonable likelihood of success with respect to at least one of the challenged claims. Accordingly, an *inter partes* review of all of the claims and all of the grounds presented in the Petition is hereby instituted. *See SAS*, 138 S. Ct. at 1354, 1359–60; *PGS Geophysical*, 891 F.3d at 1360; 37 C.F.R. § 42.108(a).

At this stage of the proceeding, the Board has not made a final determination as to the patentability of any challenged claims or any underlying factual or legal issues. The final determination will be based on the record as developed during the *inter partes* review.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–5, 12–14, 17, and 18 of the '046 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '046 patent shall commence

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on the entry date of this Order, and notice is hereby given of the institution
of a trial.

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