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Paper 12
Entered: December 17, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KIOSOFT TECHNOLOGIES, LLC and TECHTREX, INC.,
Petitioner,

v.

PAYRANGE INC.,
Patent Owner.

PGR2021-00093
Patent 10,891,614 B2

Before MEREDITH C. PETRAVICK, STACEY G. WHITE, and GEORGE R. HOSKINS, *Administrative Patent Judges.*

PETRAVICK, *Administrative Patent Judge*.

DECISION
Granting Institution of Post-Grant Review
35 U.S.C. § 324(a)

I. INTRODUCTION

A. *Background and Summary*

KioSoft Technologies, LLC and TechTrex, Inc. (collectively, "Petitioner") filed a Petition requesting post-grant review of claims 1–25 of U.S. Patent No. 10,891,614 B2 (Ex. 1001, "'614 patent"). Paper 2 ("Pet."). PayRange Inc. ("Patent Owner") filed a Preliminary Response. Paper 6

("Prelim. Resp."). With our authorization, Petitioner filed a Reply (Paper 8, "Reply") and Patent Owner filed a Sur-reply (Paper 9, "Sur-reply").

As set forth in 35 U.S.C. § 324(a), a post-grant review may not be instituted unless "the information presented in the petition filed under section 321, if such information is not rebutted, would demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable."

The following findings of fact and conclusions of law are not final, but are made for the sole purpose of determining whether Petitioner meets the threshold for initiating review. Any final decision shall be based on the full trial record, including any response timely filed by Patent Owner. Any arguments not raised by Patent Owner in a timely-filed response may be deemed waived, even if they were presented in the Preliminary Response.

After considering the Petition, the Preliminary Response, and the evidence of record, we determine that Petitioner has demonstrated that, if unrebutted, it is more likely than not that at least one of the claims challenged in the Petition is unpatentable. Accordingly, we institute a post-grant review of all challenged claims based upon all grounds raised in the Petition.

B. *Related Matters*

The '614 patent is the subject of *PayRange Inc. v. KioSoft Techs, LLC et al.*, Case No. 1:20-cv-24342, in the U.S. District Court for the Southern District of Florida ("the district court litigation"). Pet. 2; Paper 3, 2. Related U.S. Patent Nos. 10,891,608 and 10,719,833 are also the subject of the district court litigation. U.S. Patent No. 10,891,608 is challenged in PGR2021-00084 and U.S. Patent No. 10,719,833 is challenged in PGR2021-00077.

The '614 patent is related to U.S. Patent No. 9,659,296 and U.S. Patent No. 9,134,994, which are the subject of *PayRange Inc. v. Kiosoft Technologies, LLC et al.*, Case No. 1:20-cv-20970-RS in the U.S. District Court for the Southern District of Florida ("the '20970 district court litigation"). Pet. 2; Paper 3, 2. U.S. Patent No. 9,659,296 was challenged in CBM2020-00026 and IPR2021-00086, in which we exercised discretion respectively under 35 U.S.C. § 324(a) and § 314(a) to deny institution. Pet. 3; Paper 3, 2.

C. *The '614 Patent*

The '614 patent is titled "Method and System for Presenting Representations of Payment Accepting Unit Events" and issued on January 12, 2021. Ex. 1001, codes (45), (54). The '614 patent claims priority, through a chain of patent applications, to a provisional patent application filed on December 18, 2013. *Id.* at code (60).

The '614 patent describes "a mobile-device-to-machine payment processing system for processing transactions over a non-persistent network connection." Ex. 1001, 5:53–56. The mobile-device-to-machine payment processing system may be a "payment accepting unit" (i.e., "equipment that requires payment for the dispensing of products and/or services," such as a vending machine, a parking meter, a toll booth, a laundromat washer and dryer, an arcade game, a kiosk, a photo booth, or a transit ticket dispensing machine). *Id.* at 1:45–55.

Some payment accepting units are capable of accepting cashless payments, such as "credit cards, debit cards, and alternative mobile device payment methods using, for example, smart phones." *See* Ex. 1001, 6:36–42. However, "traditional payment accepting units that accept cashless payments . . . require a persistent connection to a network (wired or

wireless) to facilitate the cashless payments." *Id.* Thus, "[i]f the network connection to a traditional machine is temporarily interrupted, cashless payments will be temporarily unavailable. If the machine is located in a location where no network connection is available, cashless payment processing over the network connection is not possible." *Id.* at 6:47–52.

The '614 patent purports to be able to solve this network connectivity problem by having a user's mobile device serve as an intermediary between the payment accepting unit and network. *Id.* at 5:59–64, 6:52–54. At the same time, the described system in the '614 patent purportedly also minimizes or even eliminates user interaction with the mobile device. *Id.* at 6:52–58. For example, one feature that the payment accepting unit may possess is a "manual (swipe-to-pay) mode." *Id.* at 6:1–2. When a user's mobile device is brought within range of a payment accepting unit running this "manual mode," a pre-installed mobile application on the mobile device automatically connects to the payment accepting unit. *Id.* at 7:7–10. The mobile device then connects to a server, which maintains a balance of the user's funds and authorizes the use of these funds. *Id.* at 10:11–14, 11:20–31. From there, the mobile application may display the balance on the mobile device's touchscreen, which the user then "swipes" to transfer payment to the payment accepting unit, "just as if cash was inserted in the machine with the user inputting his selection on the payment accepting unit and the payment accepting unit dispensing the product or service." *Id.* at 7:9–19 (reference numbers omitted).

D. *Illustrative Claim*

Claims 1, 14, and 20 are independent. Claims 2–13 and 21 depend from claim 1. Claims 15–19 depend from claim 14. Claims 22–25 depend

from claim 20. Claim 1 is illustrative of the claimed subject matter and is reproduced below with bracketed material added.

> 1. [1.0][1] A method of presenting representations of payment accepting unit events, comprising:
> [1.1] at a mobile device with one or more processors, memory, one or more output devices including a display, and one or more radio transceivers;
> [1.2] identifying one or more payment accepting units in proximity to the mobile device that are available to accept payment from a mobile payment application executing on the mobile device, [1.3] the identifying including detecting predefined radio messages broadcast by the one or more payment accepting units, [1.4] wherein the one or more payment accepting units are vending machines that accept payment for dispensing of products and/or services;
> [1.5] displaying a user interface of the mobile payment application on the display of the mobile device, [1.6] the user interface being configured to display a visual indication of the one or more payment accepting units and [1.7.1] accept user input to (i) receive selection by a user of the mobile device of an available payment accepting unit of the one or more payment accepting units and [1.7.2] (ii) trigger payment by the mobile payment application for a vending transaction initiated by the user of the mobile device with the available payment accepting unit of the one or more payment accepting units;
> [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;
> [1.9] after establishing the wireless connection, presenting the user interface of the mobile payment application and enabling user interaction with the

[1] Petitioner's designations to reference the elements of claim 1 are set forth in brackets. Herein we refer to the elements of claim 1 using Petitioner's designations. *See* Pet. 39–46.

user interface of the mobile payment application to complete the vending transaction;

[1.10] exchanging information with the available payment accepting unit via the one or more radio transceivers, in conjunction with the vending transaction; and

[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.

Ex. 1001, 46:61–47:34.

E. *Prior Art and Asserted Grounds*

Petitioner asserts that claims 1–25 are unpatentable on the following grounds:

Claims Challenged	35 U.S.C. §	Basis / Reference(s)
1–25	101	Subject Matter Eligibility
1–25	112(a)	Lack of Written Description
21	112(b)	Indefiniteness
1, 14, 20	102	Low[2]
2–13, 15–19, 21–25	103	Low
1–25	103	Low, Breitenbach[3]
7	103	Low, Breitenbach, Faith[4]
1–25	103	Low, Mockus[5]

Pet. 5. Petitioner relies on the Declaration of Gerald Smith (Corrected Ex. 1003).

[2] U.S. Patent No. 10,210,501 B2 (issued Feb. 19, 2019) (Ex. 1007) ("Low").
[3] U.S. Patent App. Pub. No. 2011/0172848 A1 (pub. Jul. 14, 2011) (Ex. 1008) ("Breitenbach").
[4] U.S. Patent No. 8,761,809 B2 (issued Jun. 24, 2014) (Ex. 1009) ("Faith").
[5] U.S. Patent App. Pub. No. 2012/0029691 A1 (pub. Feb. 2, 2012) (Ex. 1010) ("Mockus").

II. ANALYSIS

A. *Discretionary Denial under 35 U.S.C. § 324*

Patent Owner requests that we exercise discretion under 35 U.S.C. § 324(a) to deny institution. Prelim. Resp. 9–17. Patent Owner argues that we should apply our precedential decisions regarding discretionary denial of *inter partes* review ("IPR") proceedings under 35 U.S.C. § 314(a), namely *NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential), and *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential). Prelim. Resp. 9. Patent Owner argues that, in light of the facts and circumstances, these precedential decisions direct discretionary denial of institution of the post-grant patent review proceeding here under § 324(a). *Id.* at 10–17.

Fintiv sets forth the factors that we weigh in determining whether to exercise our discretion to deny institution of the post-grant patent review proceeding here under 35 U.S.C. § 324(a). *See Fintiv*, Paper 11, 5–6. These factors are:

> 1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
>
> 2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
>
> 3. investment in the parallel proceeding by the court and the parties;
>
> 4. overlap between issues raised in the petition and in the parallel proceeding;
>
> 5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
>
> 6. other circumstances that impact the Board's exercise of discretion, including the merits.

Id. "These factors relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding." *Id.* at 6. "[T]he Board takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Id.*

For the reasons discussed below, we decline to exercise our discretion to deny institution under 35 U.S.C. § 324(a).

1. Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.

Fintiv Factor 1 recognizes that a stay of litigation pending resolution of a PTAB trial allays concerns about inefficiency and duplication of efforts, which strongly weighs against exercising the authority to deny institution. *Fintiv*, Paper 11 at 6.

In the Petition, Petitioner contends that "*[f]actor 1* does not support discretionary denial, as no parties of the underlying litigation have yet requested a stay" in the district court litigation. Pet. 92. In the Reply, Petitioner informed us that it intends to seek a stay in the district court litigation and that the deadline for filing a motion to stay in the district court litigation has been extended to February 7, 2022. Reply 2–3.

> Petitioners moved in the district court to extend the deadline to file motions to stay litigation pending the Board's deliberation over whether to institute this petition, and the Court, in one order stated that the "Court agree[d] with the Defendants that the deadlines in this case should be extended in light of the Patent Trial and Appeal Board's reexamination of the patents at issue."

Reply 3 (quoting *PayRange, Inc. v. KioSoft Techs, LLC, et al.*, No. 1:20-cv-24342-RNS, Paperless Order (ECF No. 63) (S.D. Fla. Oct. 13, 2021)).

In its Preliminary Response, Patent Owner responds that "institution should be denied because there is no evidence that a stay is likely in the co-

pending district court case." Prelim. Resp. 9; *see also* Sur-reply 1–2. Patent Owner also responds that, in the '20970 district court litigation, the district court denied a stay because that case involved two patents and review of one patent would not simplify the '20970 district court litigation. Prelim. Resp. 9 (citing Ex. 2007, 3–4). Patent Owner argues: "Here, a stay is even less likely than for Petitioner's prior two petitions because of the higher number of patents at issue in the district court litigation." *Id.* at 10. Patent Owner also points out that Petitioner waited seven weeks between the filing of the Petition here and related PGR2021-00077, and "[e]ven if Petitioners had represented an intention to seek a stay in the district court after this institution decision is due at the end of December 2021, they provide no reason that the district court in January 2022 or later would be amenable to a stay." *Id.*

The district court litigation is not currently stayed and there is not sufficient evidence, on this record, as to whether a stay is likely. In such circumstances, we decline to attempt to predict how the district court would proceed should a stay be requested by either of the parties. Thus, we find that factor 1 is neutral, neither favoring exercising or not exercising discretion to deny institution.

2. Proximity of the court's trial date to the Board's projected statutory deadline for a final written decision.

Fintiv Factor 2 looks to the "proximity of the court's trial date to the Board's projected statutory deadline." *Fintiv*, Paper 11 at 9. "If the court's trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under *NHK*." *Id.*

As noted in the Petition, the district court originally set the trial date for August 15, 2022. Pet. 92; Ex. 1016. The district court trial date has since been moved to September 12, 2022. Reply 3; Ex. 3001.

Given the statutory deadlines, our latest possible date for issuance of a final written decision in this proceeding is December 21, 2022, one year and three months after the filing date of Patent Owner's Preliminary Response. 35 U.S.C. §§ 324(c) (2018), 326(a)(11); AIA § 18(a)(1), 125 Stat. 284, 329–31; *see also* 37 C.F.R. § 42.200(c). Thus, the time period from the district court's currently scheduled date to begin trial to our projected statutory deadline for a final written decision is approximately three months. *See* Prelim. Resp. 11.

Petitioner argues that the trial date is far from certain because of a pending motion to dismiss (Ex. 1024) and "the Southern District of Florida (SDFL) has a substantial trial backlog created by the pandemic." Pet. 92–93 (citing Ex. 1021 ¶ 6). Patent Owner responds that Petitioner's argument is merely speculation because Petitioner "identif[ies] no evidence that COVID-19 or any other hypothetical concerns will preclude the trial from taking place . . . as scheduled." Prelim. Resp. 10–11. Although there may be a further delay in the trial date due to COVID-19, presuming that there would be delay beyond the amended trial date of September 12, 2022, would be conjecture at this time and thus, we decline to speculate as to the possibility of additional delays.

In general, if the district court's trial date is earlier than our projected statutory deadline for a final written decision, the Board usually has weighed this fact in favor of exercising authority to deny institution under *NHK*. *Fintiv*, Paper 11, 9. Where the trial date and the projected date of our final written decision are at or around the same time, however, as they are here,

the efficiency and fairness concerns that underlie the *Fintiv* analysis are not as strong, and the decision whether to institute will instead implicate other factors. *See Fintiv*, Paper 11 at 9 ("If the court's trial date is at or around the same time as the projected statutory deadline, . . . the decision whether to institute will likely implicate other factors discussed herein, such as the resources that have been invested in the parallel proceeding."). Here, the projected period between the current trial date and our final written decision is about three months. Given this period, factor 2 minimally favors exercising discretion to deny institution.

3. Investment in the parallel proceeding by the court and the parties.

Fintiv Factor 3 considers the "investment in the parallel proceeding by the court and parties," including "the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision." *Fintiv*, Paper 11 at 9. For example, if, at the time of institution, the court in the parallel proceeding has issued "substantive orders related to the patent at issue in the petition" or "claim construction orders," this favors denial. *Id.* at 9–10.

Here, Petitioner argues that factor 3 strongly weighs in favor of institution because the district court litigation "is in a very early stage" and "[d]iscovery requests have not been exchanged, and claim construction briefing is not scheduled to begin until October 2021." Pet. 93. Patent Owner disagrees and argues that institution should be denied because of the amount of work completed or "that will be completed in [the district court litigation] before the petition would be instituted and a final written decision issue[s]." Prelim. Resp. 12. Patent Owner also argues that Petitioner "waited to file this petition until after the parties had already fully briefed

Petitioner's motion to dismiss [as to] the '614 patent for patent ineligibility, the very same ground they raised here." Sur-reply 3 (citing Ex. 2003, 4–5).

On this record, we agree with Petitioner that the district court litigation is not so advanced as to warrant denial of institution. Although opening claim construction briefing should have been completed November 15, 2021 (Ex. 3001), the district court has not yet held a *Markman* hearing or issued a claim construction order. Likewise, although the parties have fully briefed Petitioner's motion to dismiss, the district court has not yet issued a decision on the motion to dismiss.[6] Ex. 2003, 4–5. Fact discovery will not be complete until February 7, 2022, expert discovery will not be completed until March 24, 2022, and dispositive motions will not be filed until April 3, 2022. Prelim. Resp. 12 (citing Ex. 1016, 2–3; Ex. 2003); *see also* Ex. 3001.

Patent Owner argues that Petitioner "waited to file this petition until after the parties had already fully briefed Petitioner's motion to dismiss the '614 patent for patent ineligibility, the very same ground they raised here." Sur-reply 3. Petitioner, however, filed the Petition just over a month after preliminary infringement contentions were served in the district court litigation. Pet. 93. We find such timing to be reasonable.

Factor 3 weighs against exercising discretion to deny institution.

4. Overlap between issues raised in the petition and in the parallel proceeding.

Fintiv factor 4 considers whether "the petition includes the same or substantially the same claims, grounds, arguments, and evidence as

[6] On this record, it is unclear how much if any resources the court has devoted to actually deciding Petitioner's motion to dismiss, and what effect (if any) Petitioner's stipulation (discussed below) has on the motion to dismiss.

presented in the parallel proceeding." *Fintiv*, Paper 11 at 12. If the issues in the Petition overlap substantially with those raised in the parallel proceeding, "this fact has favored denial." *Id.* "Conversely, if the petition includes materially different grounds, arguments, and/or evidence . . . this fact has tended to weigh against exercising discretion to deny institution." *Id.* at 12–13.

Concerns about the degree of overlap may be mitigated where a petitioner agrees not to pursue in the parallel district court litigation the grounds advanced in the petition. *Sand Revolution II, LLC v. Continental Intermodal Grp. – Trucking LLC*, IPR2019-01393, Paper 24 at 11–12, 12 n.5 (PTAB June 16, 2020) (informative). A petitioner stipulating not to pursue in a related lawsuit "any ground raised or that could have been reasonably raised" in a post-grant proceeding weighs strongly in favor of not exercising discretionary denial. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18–19 (PTAB Dec. 1, 2020) (precedential as to § II.A) ("*Sotera*")).

Petitioner argues that factor 4 strongly favors institution because "th[e] petition challenges all claims whereas the district court[] will, at most, decide the patentability of only a subset of the challenged claims." Pet. 94.

Patent Owner responds that the Petition includes the same claims, grounds, arguments, and evidence as Petitioner's case before the district court because Petitioner's invalidity contentions set forth the identical grounds as the Petition. Prelim. Resp. 13–14.

After filing the Petition, Petitioner informed us that they filed an amended stipulation in the district court litigation. Paper 11. The stipulation states:

> In the event of institution of the Post-Grant Review proceeding concerning the '614 Patent by the PTAB, Defendants will not rely on any ground (including prior art) that was raised or that reasonably could have been raised in the '614 Patent Petition for Post-Grant Review in the present litigation relating to the validity of the '614 Patent.

Ex. 1029, 2.

Because of Petitioner's stipulation, reproduced above, there will be no overlap of unpatentability issues here and the district court litigation, if we institute review. This mitigates concerns about duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions. Factor 4 weighs strongly in favor of not exercising discretion to deny institution.

5. Whether the petitioner and the defendant in the parallel proceeding are the same party.

Fintiv factor 5 looks to "whether the petitioner and the defendant in the parallel proceeding are the same party." *Fintiv*, Paper 11 at 14. "If a petitioner is unrelated to a defendant in an earlier court proceeding, the Board has weighed this fact against exercising discretion to deny institution." *Id.* at 13. Petitioner is the defendant in the district court proceeding. Pet. 2, 94–95; Prelim. Resp. 15. This fact could weigh either in favor of, or against, exercising discretion to deny institution, depending on which tribunal was likely to address the challenged patent first. However, the currently scheduled trial date and the final written decision statutory deadline are close in time, about three months apart.

Accordingly, factor 5 weighs, at most, slightly in favor of exercising its discretion to deny institution.

6. Other circumstances that impact the Board's exercise of discretion, including the merits.

Fintiv factor 6 looks to whether "other circumstances" exist that might "impact the Board's exercise of discretion, including the merits." *Fintiv*, Paper 11 at 14.

Petitioner argues that factor 6 weighs in favor of institution because the grounds here provide a strong showing of unpatentability. Pet. 95. Patent Owner responds that the "merits are not strong" because the grounds are conclusory and due to alleged claim construction inconsistencies between the Petition's claim construction analysis and the asserted grounds. Prelim. Resp. 15–17.

We have reviewed Petitioner's unpatentability arguments and Patent Owner's Preliminary Response, and based on the record before us, considering the merits of Petitioner's patentability challenges as a whole, we find the merits of the § 101 ground to be sufficiently strong, on this record, so as to merit institution under § 324. On this record, we find that Petitioner's showing as to § 101 is sufficiently strong so as to weigh against exercising discretion to deny under factor 6. *See Fintiv*, Paper 11 at 14–15 (noting that the merits favor institution under factor 6 "if the merits of a ground raised in the petition seem particularly strong").

Factor 6 weighs in favor of the Board not exercising its discretion to deny institution.

7. Conclusion on Discretionary Denial under 35 U.S.C. § 324(a)

The *Fintiv* factors weigh on both sides. After a holistic consideration of the relevant facts and the particular circumstances of this case, we do not exercise our discretion under § 324(a) to deny institution.

B. *Discretionary Denial under 35 U.S.C. § 325(d)*

Section 325(d) provides that the Director may elect not to institute a proceeding if the challenge to the patent is based on matters previously presented to the Office. 35 U.S.C. § 325(d) states, in pertinent part, that "[i]n determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." The Board uses a two-part framework for evaluating arguments under § 325(d):

> (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and
>
> (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) ("*Advanced Bionics*"). "[T]he *Becton, Dickinson* factors provide useful insight into how to apply the framework under 35 U.S.C. § 325(d)." *Id.* at 9 (footnote omitted). The non-exclusive *Becton, Dickinson* factors are:

> (a) the similarities and material differences between the asserted art and the prior art involved during examination;
>
> (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
>
> (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;

> (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
>
> (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
>
> (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) ("*Becton, Dickinson*"). *Becton, Dickinson* factors (a), (b), and (d) relate to the first part of the *Advanced Bionics* framework (whether the same or substantially the same art or arguments previously were presented to the Office), and *Becton, Dickinson* factors (c), (e), and (f) relate to the second part of that framework (previous Office error). *Advanced Bionics*, Paper 6 at 9–11. Only if the same or substantially the same art or arguments were previously presented to the Office do we then consider whether the petitioner has demonstrated a material error by the Office. *Id.*

Under § 325(d), the art or arguments must have been previously presented to the Office during proceedings, such as examination of the underlying patent application, pertaining to the challenged patent. *Advanced Bionics*, Paper 6 at 7. Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement ("IDS"), in the prosecution history of the challenged patent. *Id.* at 7–8.

The '614 patent is a continuation of U.S. Patent No. 9,659,296 ("the '296 patent") and U.S. Patent No. 9,547,859 ("the '859 patent"). Ex. 1001, code (63).

Patent Owner requests that we exercise discretion under 35 U.S.C § 325(d) because the same prior art or arguments were previously presented to the Office. Prelim. Resp. 17–21. In particular, Patent Owner argues that during prosecution of related the '859 patent and '296 patent, claims were rejected under 35 U.S.C. § 101 as being patent ineligible and that Mockus was considered during the prosecution of the parent '296 patent by the same Examiner. *Id.* at 18–21.

1. Section 101 Ground

Petitioner asserts that "[t]he claims of the '614 Patent were not rejected under §101. Accordingly, there is no evidence that the Examiner evaluated the subject matter eligibility of the claims." Pet. 27.

Patent Owner argues that the Office nonetheless considered the same or substantially the same patent-eligibility arguments under § 101 with respect to the claims of the '296 patent and the '859 patent. Prelim. Resp. 17–19.

An issue relevant to this proceeding is whether the arguments presented in the Petition as to unpatentability of the challenged claims under 35 U.S.C. § 101 are the same or substantially the same arguments previously presented to the Office. *See Becton, Dickinson*, Paper 8 at 17–18 (identifying factors that compare a petition's arguments with issues and arguments raised in the prosecution history). To answer this question, we compare the issues addressed by the Office during examination of the parent patents with the arguments presented in the Petition.

During the prosecution of the '859 patent, in 2014, the Examiner rejected claims under § 101 as being directed to patent ineligible subject matter. Ex. 2012, 736, 741–743. In March 2015, the applicant overcame the rejection by amending the claims to include limitations directed to a first

transceiver corresponding to a short-range communication mode and a second transceiver corresponding to a long-range communication mode and by specifying whether the first or second transceiver performed certain actions recited in the claims. *Id.* at 399, 371–372, 407–409. Applicant argued that the March 2015 claims, as amended, do not preempt all applications of the Examiner's stated abstract idea of "payment authorization." *Id.* at 408.

Likewise, during the prosecution of the '296 patent, in 2014, the Examiner rejected claims under § 101 as being directed to patent ineligible subject matter. Ex. 2004, 146–147 (January 5, 2015 Office Action). In August 2014, the applicant overcame the rejection by amending the claims to include limitations directed to a short-range transceiver that performs certain actions. *Id.* at 490 (April 5, 2015 Response to Office Action). Applicant argued that the April 2015 claims, as amended, do not preempt all applications of the Examiner's stated abstract idea of "performing an acknowledgment of a payment." *Id.* at 490, 496–498 (April 6, 2015 Response to Office Action).

Because the claims at issue here, in particular claim 1, differ from the March 2015 amended claims of the '859 patent and the August 2014 amended claims of the '296 patent (*see, e.g.*, Ex. 1001, 46:59–47:34), we are not persuaded that the cited prosecution history equally applies to the claims here. In particular, we note that claim 1, which we discuss in the analysis below, does not recite a first transceiver corresponding to a short-range communication mode and a second transceiver corresponding to a long-range communication mode, and does not specify whether a first or second transceiver perform certain actions recited in the claim. *Id.* As Patent Owner points out (Prelim. Resp. 19), claim 1 of the '614 patent more

broadly recites "one or more radio transceivers" (Ex. 1001, 46:61–47:34), but claim 1 does not specify whether it is long or short range and merely recites it being used to establish a connection for the exchange of information between a mobile device and a payment accepting unit in some of the claimed steps. *Id.* Thus, considering *Becton, Dickinson* factors (a) and (d), we are not persuaded that the same or substantially the same arguments concerning § 101 were previously presented to the Office.

Because we determine that the same or substantially the same arguments with respect to § 101 were not previously presented to the Office, we need not address part two of the *Advanced Bionics* framework with respect to those arguments.

2. Mockus

Petitioner argues that "Section 325(d) does not weigh against institution because none of the prior art references in this Petition, nor argument based thereon, were ever substantively evaluated by the Patent Office with regard to the '614 Patent." Pet. 95. Petitioner acknowledges that Mockus was cited on the face of the '296 patent, stating:

> Only Mockus (EX1010) was theoretically before the '614 Patent Examiner as a result of its citation on the face of the '296 Patent (parent to the '614 Patent). However, Mockus was not cited on the face of the '614 Patent, and Mockus was not substantively examined. EX1002.

Pet. 96.

Patent Owner responds that "Petitioners' §325(d) analysis ignores that the asserted Mockus reference (EX1010) was considered during the prosecution of the parent '296 patent by the same Examiner." Prelim. Resp. 19–20 (citing Ex. 2004, 672).

During prosecution of the '296 patent, Mockus was listed on an Information Disclosure Statement ("IDS") and was considered by the Examiner. Ex. 2004, 672 (June 18, 2015 IDS). Although the Petition's prior art grounds rely on Mockus to show unpatentability of the claims here, Petitioner relies upon Mockus only in combination with prior art that was not previously before the Office — Low. Pet. 5. The combination of references in the Petition do not amount to substantially the same art as considered during prosecution by the Examiner. Further, we note that the Petition presents a number of grounds that do not include Mockus. *Id.*

Additionally, although Patent Owner points out that the Examiner cited numerous other references during prosecution, Patent Owner does not explain, for example, why Low would be cumulative to these other references that the Examiner applied during prosecution. Prelim. Resp. 20–21. These determinations affect multiple factors relevant to discretionary denial under 35 U.S.C. § 325(d). *See Advanced Bionics*, Paper 6 at 8; *Becton, Dickinson*, Paper 8, 17–18 (addressing, with factors a–d, overlap between examination and a petitioner's contentions). We conclude that the record with respect to the asserted prior art grounds does not justify denying institution under § 325(d).

Because we determine that the same or substantially the same prior art was not previously presented to the Office, we need not address part two of the *Advanced Bionics* framework with respect thereto.

We determine that discretionary denial under § 325(d) is not warranted in this case.

C. *Level of Ordinary Skill*

Petitioner contends:

> A [person having ordinary skill in the art ("POSITA")] would have had an education background of, or practical experience providing an equivalent to, a Bachelor of Science in Electrical Engineering, Computer Science, or a related/equivalent field and at least 3 years of academic or industry experience in electronic payment systems.

Pet. 16 (citing Ex. 1003 ¶¶ 5–6). Patent Owner does not dispute Petitioner's contention in its Preliminary Response. *See generally* Prelim. Resp.

Based on the record before us, we adopt Petitioner's asserted level of ordinary skill to determine whether it is more likely than not that at least one of the claims challenged in the Petition is unpatentable. This level of skill in the art is consistent with the disclosure of the '614 patent and the prior art of record. *See In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

D. *§ 101 Eligibility – Claims 1–25*

1. Section 101

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court's two-part framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at

219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.,* the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Court held that "a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 187; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citation omitted) (citing *Benson* and *Flook*); *see, e.g.*, *id*. at 187 ("It is now commonplace that

an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221. "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

2. USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101.[7] The Manual of Patent Examining Procedure ("MPEP") now incorporates this revised guidance and subsequent updates at § 2106 (9th ed. Rev. 10.2019, rev. June 2020).[8]

Under MPEP § 2106, we first look to whether the claim recites:

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[7] 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance"). In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the "October 2019 Update"). "All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." 84 Fed. Reg. at 51; *see also* October 2019 Update at 1.

[8] All references to the MPEP are to the Ninth Edition, Revision 10.2019 (Last Revised June 2020), unless otherwise indicated.

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) ("Step 2A, Prong One"); and
>
> (2) additional elements that integrate the judicial exception into a practical application ("Step 2A, Prong Two").[9]

MPEP § 2106.04(a), (d).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application,[10] do we then look, under Step 2B, to whether the claim:

> (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional activity" in the field; or
>
> (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.[11]

MPEP § 2106.05(d).

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[9] "Examiners evaluate integration into a practical application by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application." MPEP § 2106.04(d)(II).

[10] This corresponds to *Alice* part one where it is determined whether the claim is "directed to" an abstract idea. *See Alice*, 573 U.S. at 219. If a claim is "not directed to an abstract idea under part one of the *Alice* framework, we do not need to proceed to step two." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016).

[11] This corresponds to *Alice* part two where it is determined whether the claim "contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221.

3. Analysis

Both Petitioner's and Patent Owner's arguments are directed primarily to claim 1. *See generally* Pet. 17–28; Prelim. Resp. 21–26. Likewise, we take claim 1 as representative of the challenged claims. Because we are persuaded that Petitioner has made a sufficient showing as to claim 1, we need not address the remaining claims at this time. *See PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting 35 U.S.C. § 314, which includes the same language as 35 U.S.C. § 324, to require "a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition"); Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019), 5–6, *available at* https://www.uspto.gov/TrialPracticeGuideConsolidated ("In instituting a trial, the Board will 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.") ("Practice Guide").

a) Step 1

Step 1 asks whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. § 101: process, machine, manufacture, or composition of matter.

Claim 1 recites "[a] method of presenting representations of payment accepting unit events" and corresponding steps. Ex. 1001, 46:61–47:34. Claim 1, thus, falls within the process category.

b) Step 2A, Prong One

Under Step 2A, Prong One, we determine whether the claims recite any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes).

Petitioner asserts that the claims recite "identifying a merchant and making a purchase from the merchant." Pet. 19. Petitioner states: "[t]he claimed process of a purchaser and merchant communicating information about a purchase is an abstract idea dressed in conventional technical language. It is no less abstract than a customer noticing a store, making a purchase, and receiving a receipt." *Id.* at 20.

MPEP § 2106.04(a)(2) enumerates certain groupings of subject matter that are abstract ideas. Claims that recite certain methods of organizing human activity, such as commercial or legal interactions, including sales activities, recite an abstract idea. MPEP § 2106.04(a)(2) (citing *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378–79 (Fed. Cir. 2017) (holding that the concept of "local processing of payments for remotely purchased goods" is a "fundamental economic practice, which *Alice* made clear is, without more, outside the patent system."); *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1054 (Fed. Cir. 2017) ("The Board determined that the claims are directed to the abstract idea of 'processing an application for financing a purchase.' . . . We agree."')).

Claim 1 recites, in part:

> [1.2] identifying one or more payment accepting units in proximity to the mobile device that are available to accept payment from a mobile payment application executing on the mobile device, [1.3] the identifying including detecting predefined radio messages broadcast by the one or more payment accepting units, [1.4] wherein the one or more payment accepting units are vending machines that accept payment for dispensing of products and/or services;
> [1.5] displaying a user interface of the mobile payment application on the display of the mobile device, [1.6] the user interface being configured to display a visual indication of the one or more payment accepting units and [1.7.1] accept user input to (i) receive selection by a user of the mobile device of

> an available payment accepting unit of the one or more payment accepting units and [1.7.2] (ii) trigger payment by the mobile payment application for a vending transaction initiated by the user of the mobile device with the available payment accepting unit of the one or more payment accepting units;
>
> [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;
>
> [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;
>
> [1.10] exchanging information with the available payment accepting unit via the one or more radio transceivers, in conjunction with the vending transaction; and
>
> [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.

Ex. 1001, 46:61–47:34. Based on the current record, we are persuaded that the limitations above recite the concept of identifying a merchant and making a purchase from the merchant. In particular, claim 1 recites steps for identifying payment accepting units (i.e., a merchant) — limitations 1.2–1.7.1. Claim 1 also recites steps for conducting the purchase —limitations 1.7.2–1.11.

Based on the current record, we find that identifying a merchant and making a purchase from the merchant is a commercial interaction, a sales activity. It falls within the enumerated "[c]ertain methods of organizing human activity" grouping of abstract ideas set forth in MPEP § 2106.04(a)(2).

Identifying a merchant and making a purchase from the merchant is similar to other concepts our reviewing court has held to be an abstract idea.

See Western Express Bancshares, LLC v. Green Dot Corp., 816 F. App'x 485, 486 (Fed. Cir. 2020) (a method of funds transfer using a payment card is a fundamental economic practice long prevalent in our system of commerce); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1371–72 (Fed. Cir. 2017) (acquiring identification data from a bankcard, granting access to a transit system if the bankcard is valid, funding a transit ride from multiple balances associated with the bankcard, and charging a different fare if the bankcard is associated with a time pass subway card involve the collection, storage, and recognition of data as an abstract idea); *Credit Acceptance Corp.*, 859 F.3d at 1054.

Patent Owner criticizes Petitioner's articulation of the abstract idea and argues that it "dodge[s] the literal claim language." Prelim. Resp. 21–23. However, Petitioner's articulation accounts for at least the limitations identified above, which pertain to identifying a merchant and making a purchase from the merchant. We disagree with Patent Owner on this record that Petitioner fails to account for the language of claim 1.

c) Step 2A, Prong Two

Under Step 2A, Prong Two, if a claim recites a judicial exception, we determine whether the recited judicial exception is integrated into a practical application of that exception by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application. If the recited judicial exception is integrated into a practical application, the claim is not directed to the judicial exception.

Petitioner argues that claiming of generic features, such as displaying a user interface, "do not constitute patentable subject matter." Pet. 21–23.

In addition to the alleged abstract idea, claim 1 recites these additional elements: 1) a mobile device, with one or more processors, memory, a display, and a radio transceiver; 2) an application executing on the mobile device; and 3) a payment accepting unit (i.e., a vending machine). Ex. 1001, 46:61–47:24. Claim 1 recites the mobile device performing the alleged abstract idea of identifying a merchant and making a purchase from the merchant by communicating with the payment accepting unit. *See id*. The '614 patent describes the mobile device, application, and payment accepting unit (i.e., vending machine) as generic computers communicating by generic methods. *See, e.g.*, *id.* at 8:64–9:6 (describing the mobile device and application as generic computers and software implementing the method); 9:22–26 (describing the automatic retail machine as various devices).

Based on the current record, we agree with Petitioner that the additional elements are merely used as a tool to perform an abstract idea on computers and do not integrate the exception into a practical application. *See Credit Acceptance Corp.*, 859 F.3d at 1055–56 (using a computer as a tool to process an application for financing a purchase). On this record, they do not reflect an improvement in the functioning of a computer or an improvement to other technology or technical field, and the additional elements, individually and in combination, do not integrate the exception into a practical application.

Patent Owner contends that its invention is a technological invention that requires particular unconventional technical functionality. Prelim. Resp. 23–24. On this record, Patent Owner's contention is unpersuasive as Patent Owner does not point to, and we cannot find, any claim element that suggests an improvement in technology. Patent Owner's position appears to be based on the type of payment accepting units identified — "identifying

payment accepting unit both '*in proximity*' to the mobile device and '*available to accept payment from a mobile payment application executing on the mobile device.*'" *Id.* at 23 (emphasis added). On this record, we do not see why specifying the type of payment accepting units identified amounts to an improvement in technology. Further, the mere fact that claim 1 recites some technical components (e.g., mobile device, payment accepting unit) and cannot be performed entirely by a human, as Patent Owner contends, is not the end of the analysis; what we must determine is whether those components integrate the alleged abstract idea into a practical application. *See id.* at 23.

d) Step 2B

Under Step 2B, only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim: (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, [and] conventional" in the field (*see* MPEP § 2106.05(d)); or (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

The Federal Circuit in *Berkheimer* made clear that "not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry." *Berkheimer v. HP, Inc.,* 881 F.3d 1360, 1368 (Fed. Cir. 2018). In fact, the Federal Circuit in *Berkheimer* did not require evidentiary support for independent claim 1 because "[t]he limitations [of claim 1] amount to no more than performing the abstract idea of parsing and comparing data with conventional computer components." *Id.* at 1370.

Petitioner argues that "the only feature added in the '614 Patent claims is a conventional wireless mobile device with display capabilities

used for the conventional task of carrying out the abstract idea of a purchase transaction." Pet. 26. Petitioner contends that the '614 patent, itself, shows that the additional elements are conventional elements performing conventional activities. *Id.* at 26–27 (citing Ex. 1001, 2:1–3, 9:4–6, 9:19–22, 9:31–66, 13:30–47). Patent Owner responds that "Petitioner's argument ignores the specific technological configuration required by the claims." Prelim. Resp. 24–26.

The '614 patent discloses that the additional elements (a mobile device, with one or more processors, memory, displays, and radio transceivers, an application on the mobile device, and a payment accepting unit (i.e., vending machine)) are well-understood, routine, and conventional elements performing well-understood, routine, and conventional activities (sending and receiving information). *See, e.g.*, Ex. 1001, 2:1–3, 9:4–6, 9:19–22, 9:31–66, 13:30–47; *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive."); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (determining receiving, processing, and sending data to be well-known, generic computer-implemented steps); *Cyberfone Sys., L.L.C. v. CNN Interactive Grp., Inc.*, 558 F. App'x 988, 992 (Fed. Cir. 2014) (organizing, storing, and transmitting information determined to be well-established).

On this record, Petitioner has made a sufficient showing for claim 1 as to Step 2B.

e) Conclusion on Patent Eligibility

For reasons above, Petitioner has shown that it is more likely than not that claim 1 is unpatentable under 35 U.S.C. § 101.

E. *Claim Construction*

We interpret a claim "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b)." 37 C.F.R. § 42.200(b) (2020). This standard requires that we construe claims "in accordance with the ordinary and customary meaning of such claim[s] as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." *Id.*; *see also Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). Only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999); *see also Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs*. in the context of an AIA trial proceeding).

Petitioner proposes constructions of the following claim limitations:

1) "Payment accepting unit";

2) "Identify one or more payment accepting units in proximity to the mobile device";

3) "available to accept payment from the mobile payment application";

4) "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"; and

5) "exchanging information with the available payment accepting unit via the one or more radio transceivers, in conjunction with the vending transaction."

Pet. 6–7. Petitioner does not provide any analysis or explanation as to why we should adopt its proposed constructions. *Id.* Petitioner merely states: "While Petitioners have identified the claim constructions they consider to be relevant to the instant petition, by way of background, the claim construction order in [the '20970 district court litigation] is attached herewith as Exhibit 1015." *Id.* at 7. Petitioner provides no explanation as to how this order relates to its proposed constructions.

Patent Owner contends that the Petition is deficient in the manner that it construes claims because it does not evaluate the claim language, specification, and prosecution history. Prelim. Resp. 7–9. With regards to the claim construction order from the '20970 district court litigation, Patent Owner asserts:

> Petitioners deliberately proposed constructions for "identify" and "available" in their petition even though the Court already had rejected them in the context of the '296 patent. EX1015, 6-8. The remaining terms addressed in the claim construction order for the '296 patent are not for the same terms as Petitioners seek to construe in this case for this patent.

Id. at 7–8.

On this record, we determine that no claim term requires explicit construction. *See Vivid Techs.*, 200 F.3d at 803 (construing explicitly only those claim terms in controversy and only to the extent necessary to resolve the controversy).

F. *§ 112 Lack of Written Description – Claims 1–25*

Petitioner asserts that the '614 patent lacks written description support for limitation 1.4 ("the vending machine limitation") and limitation 1.7.1 ("the user interface configuration limitation"). Pet. 29–34.

Under 35 U.S.C. § 112(a), "[t]he specification shall contain a written description of the invention, and of the manner and process of making and

using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same . . . ." To satisfy the written description requirement, the disclosure must reasonably convey to skilled artisans that the patentee possessed the claimed invention as of the filing date. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) *(*en banc*)*. The requirement under § 112 does not demand that the specification recite the claimed invention verbatim. *Id.* at 1352 (citations omitted). The "claimed subject matter need not be described *in haec verba* in the specification in order for that specification to satisfy the description requirement." *In re Smith*, 481 F.2d 910, 914 (CCPA 1973). "Original claims are part of the original specification and in many cases will satisfy the written description requirement." *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1297 (Fed. Cir. 2017).

1. vending machine limitation

Independent claim 1's limitation 1.4 recites "wherein the one or more payment accepting units are vending machines that accept payment for dispensing of products and/or services." Ex. 1001, 47:5–7. Independent claims 14 and 20 recite similar limitations. *Id.* at 48:41–44, 49:54–57.

Petitioner asserts that the '614 patent does not provide written description support for limitation 1.4 because the '614 patent defines vending machines as machines that dispense goods, not products and/or services. Pet. 31 (citing Ex. 1001, 1:36–43, 1:45–56). Additionally, Petitioner asserts that the '614 patent does not provide adequate written description for claim 18, which recites "wherein the one or more payment accepting units further comprise one or more of: parking meters, toll booths, laundromat washers, laundromat dryers, arcade games, kiosks, photo booths,

toll booths, and/or transit ticket dispensing machines" to inform the POSITA of the differences between the vending machine and these additional machines. *Id.* at 32 (citing Ex. 1003 ¶¶ 77–79 (testimony of Mr. Smith)); Ex. 1001, 49:29–33.

Patent Owner responds that "neither the petition nor the declaration explains why the specification, when read for all it teaches, fails to convey to a POSITA that the inventors possessed vending machines for services. Petitioners' written description challenge should be rejected because it is conclusory, incomplete, and legally deficient." Prelim. Resp. 27 (emphasis omitted). Patent Owner argues that the '614 patent describes vending transactions as including selecting and receiving products or services. *Id.* at 27–28 (citing Ex. 1001, 7:49–64, 11:57–12:5). Patent Owner disputes that the '614 patent defines vending machines as only dispensing goods. Prelim. Resp. 28–29.

On this record, we agree with Patent Owner.[12] Petitioner relies upon the following portions of the '614 patent:

> Vending machines (or "automatic retailing" machines), in the broadest sense, have been around for thousands of years. The first simple mechanical coin operated vending machines were introduced in the 1880s. Modern vending machines stock many different types of products including, but not limited to drinks (e.g., water, juice, coffee, and soda) and edible food products/items (e.g., snacks, candy, fruit, and frozen meals), as

[12] We note that in the '20970 district court litigation, the district court construed the term "vending machine" in the context of the '296 patent to not include machines that provide services. *See* Ex. 1015, 5–6. Neither Petitioner nor Patent Owner relies upon or mentions the district court construction in its written description analysis. During trial, the parties should address whether and how the district court's construction applies in the context of the '614 patent.

well as a wide variety of non-food items.

. . .

Vending machines are one type of "payment accepting unit" (payment accepting units are also referred to herein generically as "machines"). A payment accepting unit (or machine) is equipment that requires payment for the dispensing of products and/or services. In addition to vending machines, payment accepting units can also be other machines that require payment for the dispensing of a product and/or services including, but not limited to parking meters, toll booths, laundromat washers and dryers, arcade games, kiosks, photo booths, toll booths, transit ticket dispensing machines, and other known or yet to be discovered payment accepting units

Ex. 1001, 1:36–56; Pet. 31. Petitioner does not sufficiently explain why the above description from the '614 patent's background section defines vending machines as machines that dispense goods and not "products and/or services." *See* Pet. 31–32. Petitioner also fails to account sufficiently for other disclosures of the '614 patent that indicate a vending transactions can include receiving "product(s) (or service(s))." *See* Ex. 1001, 7:52–53, 11:57–12:5. Further, Petitioner fails to explain sufficiently how claim 18 supports its assertion that limitation 1.7.1 lacks adequate written description support.

On this record, Petitioner does not show sufficiently that claims 1–25 are more likely than not unpatentable under 35 U.S.C. § 112(a) for lack of written description.

2. the user interface configuration limitation

Claim 1 recites:

[1.5] displaying a user interface of the mobile payment application on the display of the mobile device, [1.6] the user interface being configured to display a visual indication of the one or more payment accepting units and [1.7.1] *accept user input to (i) receive selection by a user of the mobile device of an*

> *available payment accepting unit of the one or more payment accepting units.*

Ex. 1001, 47:8–15 (bracketed material and emphasis added). Independent claims 14 and 20 recite similar limitations. *Id.* at 48:45–51, 50:1–7.

Petitioner asserts that the '614 patent does not provide written description support for limitation 1.7.1 because it describes that in both hands-free mode and manual (swipe-to-pay) mode, the software automatically selects the payment accepting unit. Pet. 32–33.

Patent Owner responds that the '614 patent describes that a user can manually change the automatically selected payment accepting unit and argues that Petitioner provides no explanation why this description does not provide written description support for limitation 1.7.1. Prelim. Resp. 30–31 (citing Ex. 1001, 24:41–47).

On this record, we agree with Patent Owner. As Petitioner itself points out (Pet. 34), the '614 patent describes that the user can manually change the already automatically selected payment accepting unit 120. Ex. 1001, 24:41–47. Petitioner does not sufficiently explain why the '614 patent's description of manually changing the automatically selected payment accepting unit fails to provide the necessary written description support.

On this record, Petitioner does not show sufficiently that claims 1–25 are more likely than not unpatentable under 35 U.S.C. § 112(a) for lack of written description.

G. *§ 112 Indefiniteness – Claim 21*

Petitioner asserts that claim 21 is indefinite because claim 21 recites "the non-transitory computer readable storage medium of claim 9" (Ex. 1001, 50:29–30) and claim 9 does not recite a non-transitory computer

readable storage medium. Pet. 35. Claim 9 recites a method. Ex. 1001, 48:4.

Patent Owner responds that "the true dependency of claim 21 from claim 20 is readily apparent from the intrinsic record (i.e., the prosecution history)." Prelim. Resp. 31–32.

Patent claims must "particularly point[] out and distinctly claim[] the subject matter which the inventor or a joint inventor regards as the invention." 35 U.S.C. § 112(b). "[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014); *see* USPTO Memorandum on the Approach to Indefiniteness Under 35 U.S.C. § 112 in AIA Post-Grant Proceedings (Jan. 6, 2021).[13]

On this record, we agree with Patent Owner. Based on the present record, we are persuaded by Patent Owner's reading of the prosecution history of the '614 patent. Upon review of that prosecution history, it is apparent the Office made a mistake in re-numbering the allowed claims of the application ("application claims") to be printed in the patent ("patent claims"). In particular, based on the present record, it appears that patent claim 21 should have been printed as depending from patent claim 20, not patent claim 9, for the following reasons.

Patent claim 21 was prosecuted as application claim 21, which was added to the application via an Amendment filed on March 12, 2020. *See*

[13] Available at https://www.uspto.gov/sites/default/files/documents/IndefinitenessMemo.pdf.

Ex. 1002, 287–295. At that time, application claim 9 (*id.* at 290–291) was an independent claim directed to a non-transitory computer readable storage medium, and application claim 21 (*id.* at 293) depended directly from application claim 9. This Amendment was followed directly by a Notice of Allowance. *See id.* at 297–307. The Notice allowed all application claims 1–25. *See id.* at 301 ("The allowed claim(s) is/are 1–25."); *id.* at 288–294 (listing the allowed application claims 1–25). However, as often happens, the ordering of application claims 1–25 was disjointed, so the Office re-numbered the claims so that the listing of claims in the patent would have each independent claim followed by claims depending therefrom, before another independent claim was listed. *See id.* at 288–294 (listing the disjointed allowed application claims); *id.* at 307 (the Office's "Index of Claims" identifying the application claim numbers as "Original" and the to-be-patent claim numbers as "Final").

As a result of this effort, application claim 9 was re-numbered to be patent claim 20. *See id.* Application claim 21 became patent claim 21, *but the parent claim number was not changed from "9" to "20"* when the patent was printed. *Compare* Ex. 1002, 293 (application claim 21), *with* Ex. 1001, 50:29–31 (patent claim 21). The parent claim number of the other application claims depending from application claim 9, by contrast, were correctly changed from "9" to "20." *Compare* Ex. 1002, 293–294 (application claims 22, 23, and 25), *with* Ex. 1001, 50:38–56 (patent claims 22, 23, and 25).

Thus, based on the present record, we conclude that the prosecution history of the '614 patent repairs the lack of clarity in the scope of claim 21 in the '614 patent, indicating that it should be read to depend from claim 20 in the patent, not claim 9 in the patent. *See Fitbit, Inc. v. Valencell, Inc.*, 964

F.3d 112, 119–1120 (Fed. Cir. 2020) (addressing an error in the statement of claim dependency caused by renumbering).

On this record, Petitioner fails to show sufficiently that claim 21 is more likely than not unpatentable under 35 U.S.C. § 112(b) for being indefinite.

H. *§ 102 and 103 Grounds*

1. Overview of Low

Low is titled "Electronic Payments to Non-Internet Connected Device Systems and Methods" and issued on February 11, 2019, from an application filed on July 25, 2013. Ex. 1007, codes (22), (45), (54).

Low describes wireless electronic payments for purchases from non-Internet connected machine ("NICM"), such as vending machines, through user devices, such as smartphones. *See* Ex. 1007, Abstract, 1:17–19. 2:11–25. Figure 1 of Low is reproduced below.

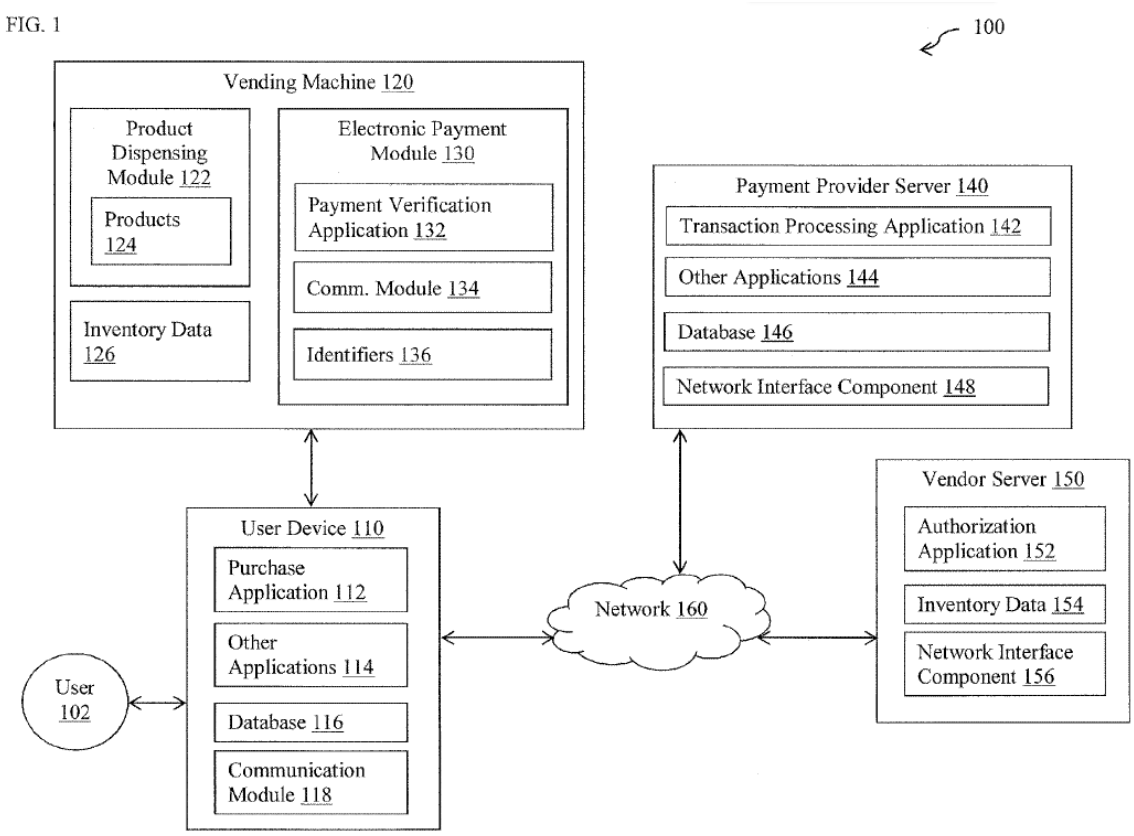


Figure 1 depicts a block diagram of Low's networked system. *Id.* at 1:52–54, 2:63–65. System 100 includes vending machine 120 (i.e., a NICM) in communication with user device 110, which is in communication with payment provider server 140 and vendor server 150 through network 160. *Id.* at 3:18–25. User device 110 has a purchase application 112, which is an interface that permits user 102 to select, purchase, and dispense products for sale at vending machine 120. *Id.* at 3:49–51, 3:57–60.

Figure 3 of Low is reproduced below.

FIG. 3

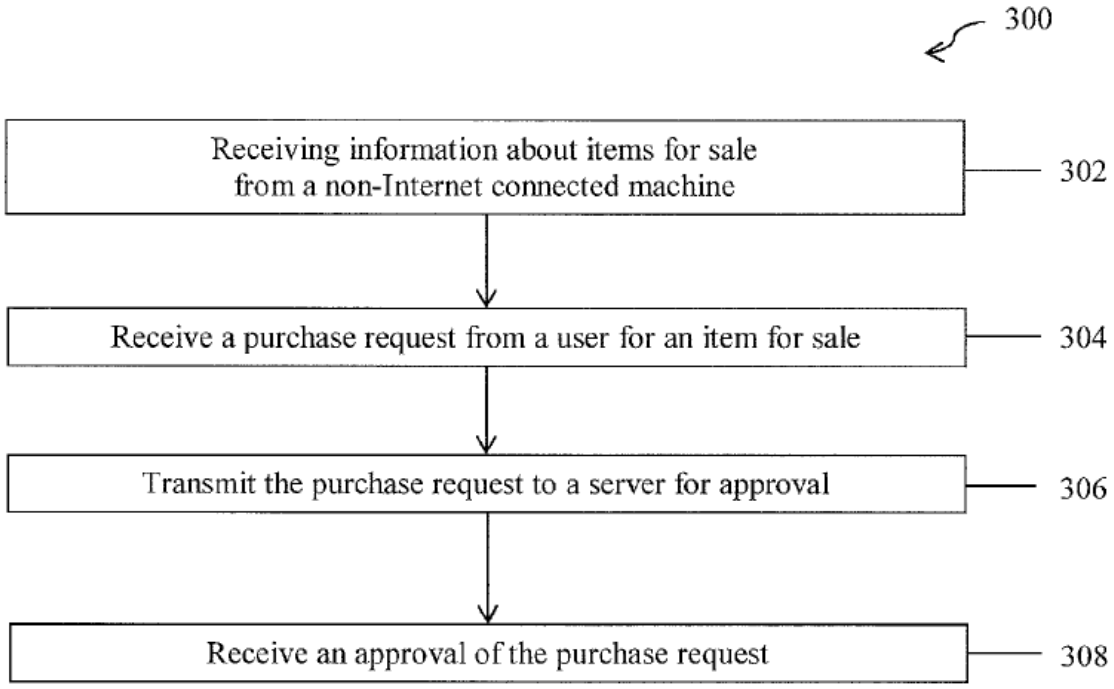


Figure 3 depicts "a flowchart illustrating a method for use by a user device for an electronic payment to a non-Internet connected device." *Id.* at 1:59–61, 10:1–3. At step 302, user device 110 connects to electronic payment module 130 of a vending machine or NICM 120 using a short range wireless communication connection, such as Bluetooth communication, and receives information about items for sale from vending machine 120. *Id.* at 10:5–14. "User device 110 may transmit a device identifier and receive a listing of items for sale, as well as information corresponding to vending machine 120, such as a machine identifier." *Id.* at 10:14–17. User 102 may then select a product for purchase using the user device 110 or directly from vending machine 120. *Id.* at 10:23–30. At step 304, user device 110 receives a purchase request, which may include a product name, product price, product code, a machine identifier, and transaction number. *Id.* at 10:18–23. At step

306, user device 110 transmits the purchase request to payment provider server 140 for approval. *Id.* at 10:41–44. If approved, at step 308, user device 110 receives an approval having a payment authorization and uses the payment authorization to dispense the purchased product from vending machine 120. *Id.* at 10:55–61.

Low states:

> In various embodiments, a user may not know a location of a NICM configured to accept electronic payments. However, the user may utilize a user device to access payment provider server 140 and receive locations of available NICMs with lists of available products at each machine. The user can further receive directions, map coordinates, and/or a GPS location of desired NICM.

Id. at 9:16–23.

2. Anticipation by Low — Independent Claim 1

A claim is anticipated under § 102 "only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Petitioner contends that Low anticipates claims 1. Pet. 35–46. In particular, Petitioner asserts that Low discloses claim 1's limitations 1.2 and 1.3. Pet. 40–41 (citing Ex. 1007, 4:44–5:3, 6:17–31, 9:14–23; Ex. 1003 ¶¶ 93, 101, 231, 232). Patent Owner disagrees and argues that the cited portions of Low fail to disclose limitations 1.2 and 1.3. Prelim. Resp. 34–37.

Claim 1's limitations 1.2 and 1.3 recite:

> [1.2] identifying one or more payment accepting units in proximity to the mobile device that are available to accept payment from a mobile payment application executing on the mobile device,

> [1.3] the identifying including detecting predefined radio messages broadcast by the one or more payment accepting units.

Ex. 1001, 46:66–47:5 (bracketed material and paragraphing added). Limitation 1.1 of claim 1 requires that the identifying of limitations 1.2 and 1.3 occurs "at a mobile device." *Id.* at 46:63–65.

The cited portions of Low describe identifiers 136. Ex. 1007, 4:45–5:3, 6:17–31. Identifiers 136 may include, for example, identifiers used to identify vending machine 120. *Id.* at 6:23–27. Low describes using identifier 136 to pair user device 110 to payment module 130 of vending machine 120 (*id.* at 6:27–31), to request information about vending machine 120 from payment provider 140 (*id.* at 8:66–9:4, 10:14–17), or to complete a purchase, as part of a purchase request (*id.* at 10:31–34). However, based on the present record, it does not appear that the cited portions of Low describe user device 110 identifying payment accepting units in proximity to the mobile device that are available to accept payment from a mobile payment application executing on the mobile device and does not describe that user device 110 identifies a vending machine 120 by detecting predefined radio messages broadcast by the one or more vending machines.

In addition to the cited portions of Low, Petitioner relies upon the testimony of Mr. Smith to assert that a POSITA would have understood Low as disclosing limitations 1.2 and 1.3 at the cited portions of Low. Pet. 40 (citing Ex. 1003 ¶¶ 93, 231), 41 (citing Ex. 1003 ¶¶ 101, 232). Mr. Smith's testimony, however, is conclusory and provides no sufficient explanation as to how Low describes limitations 1.2 and 1.3. Ex. 1003 ¶¶ 93, 101, 231, 232.

In contrast to the invention of claim 1, Low states:

> In various embodiments, a user may not know a location of a NICM configured to accept electronic payments. However, the

> user may utilize a user device to access payment provider server 140 and receive locations of available NICMs with lists of available products at each machine. The user can further receive directions, map coordinates, and/or a GPS location of desired NICM.

Ex. 1007, 9:16–23; *see also id.* at 9:4–7 ("In other embodiments, payment provider server 140 may receive a location of user device 110 and transmit information corresponding to a plurality of NICM near user device 110."). Low, thus, describes payment provider server 140, not a mobile device, identifying payment accepting units in proximity to the mobile device that are available to accept payment from a mobile payment application executing on the mobile device, and does not describe that the identifying includes detecting predefined radio messages broadcast by the one or more payment accepting units.

Accordingly, on this record, we determine that Petitioner does not sufficiently show that claim 1 is more likely than not unpatentable under 35 U.S.C. § 102 as being anticipated by Low.

3. Anticipation by Low – Independent Claims 14 and 20

Independent claims 14 and 20 recite limitations similar to limitations 1.2 and 1.3. Ex. 1002, 48:36–41, 49:49–54. Petitioner merely references its analysis of claim 1 to show that Low anticipates claims 14 and 20 and does not provide any additional explanation. Pet. 54–55 (claim 14), 62–63 (claim 20). For the same reasons as discussed above with respect to limitations 1.2 and 1.3, Petitioner does not show sufficiently that claims 14 and 20 are more likely than not anticipated by Low.

4. Obviousness over Low — Claims 2–13, 15–19 and 21–25

Because claims 2–13, 15–19, and 21–25 depend, either directly or indirectly, from claims 1, 14, and 20, Petitioner has not shown that claims 2–

13, 15–19, and 21–25 are more likely than not unpatentable based on Low. *See In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) ("[D]ependent claims are nonobvious if the independent claims from which they depend are nonobvious.").

5. Obviousness over Low and Breitenbach — Claims 1–25

Petitioner does not rely upon Breitenbach to cure the above deficiency of Low. Pet. 67–80 (mapping limitations 1.2 and 1.3 by reference to the Petition's anticipation ground). Accordingly, we determine that Petitioner does not show sufficiently that claims 1–25 are more likely than not unpatentable under 35 U.S.C. § 103 over Low and Breitenbach.

6. Obviousness over Low, Breitenbach, and Faith — Claim 7

Because claim 7 depends from claim 1, Petitioner has not shown that claim 7 is more likely than not unpatentable based on Low, Breitenbach, and Faith. *See In re Fritch*, 972 F.2d at 1266. Petitioner does not rely upon Faith to cure the above deficiency of Low. Pet. 80–85.

7. Obviousness over Low and Mockus — Claims 1–25

Petitioner does not rely upon Mockus to cure the above deficiency of Low. Pet. 85–91 (mapping limitations 1.2 and 1.3 by reference to the Petition's anticipation ground). Accordingly, we determine that Petitioner does not show sufficiently show that claims 1–25 are more likely than not unpatentable under 35 U.S.C. § 103 over Low and Mockus.

III. CONCLUSION

For the foregoing reasons, we conclude that the information presented in the Petition establishes that it is more likely than not that at least one claim of the '614 patent is unpatentable. Accordingly, we institute

post-grant review of all challenged claims on all grounds presented in the Petition. *PGS Geophysical*, 891 F.3d at 1360; Practice Guide at 5–6.

At this stage of the proceeding, the Board has not made a final determination as to the construction of any claim term or the patentability of any challenged claim.

IV. ORDER

It is ORDERED that, pursuant to 35 U.S.C. § 324, a post-grant review of claims 1–25 of the '614 patent is instituted with respect to all grounds set forth in the Petition;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 324 and 37 C.F.R. § 42.4(b), post-grant review of the '614 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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