

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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PNC BANK N.A.,  
Petitioner,

v.

UNITED SERVICES AUTOMOBILE ASSOCIATION,  
Patent Owner.

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IPR2021-01381  
Patent 10,013,681 B1

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Before JONI Y. CHANG, KRISTEN L. DROESCH, and  
MICHAEL R. ZECHER, *Administrative Patent Judges*.

ZECHER, *Administrative Patent Judge*.

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

## I. INTRODUCTION

Petitioner, PNC Bank N.A. (“PNC”), filed a Petition requesting an *inter partes* review (“IPR”) of claims 1–30 of U.S. Patent No. 10,013,681 B1 (Ex. 1001, “the ’681 patent”). Paper 3 (“Pet.”). Patent Owner, United Services Automobile Association (“USAA”), filed redacted and un-redacted versions of a Preliminary Response (Papers 8 and 10 (“Prelim. Resp.”)), along with a Joint Motion to Seal Exhibit 2006 and certain portions of the Preliminary Response that reference this exhibit (Paper 9). With our authorization, PNC filed redacted and un-redacted versions of a Preliminary Reply (Papers 12 and 13 (“Pet. Reply”)), along with a Motion to Seal certain portions of the Preliminary Reply that reference Exhibit 2006 (Paper 11), and USAA filed redacted and un-redacted versions of a Preliminary Sur-reply (Papers 14 and 17 (“PO Sur-reply”)), along with a Joint Motion to Seal certain portions of the Preliminary Sur-reply that reference Exhibit 2006 (Paper 16).

PNC’s Preliminary Reply and USAA’s Preliminary Sur-reply each were tailored narrowly to address the following three issues: (1) whether PNC’s Petition should be denied under 35 U.S.C. § 312(a)(2) because Mitek Systems, Inc. (“Mitek”) should have been named as a real party in interest (“RPI”); (2) whether the arguments and evidence presented in PNC’s Petition were considered and rejected previously in prior proceedings; and (3) whether the non-exclusive list of six factors set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (Order authorizing supplemental briefing) (“*Fintiv*”) warrants us exercising our discretion to deny institution of an IPR when there is a related district court case involving the same patent.

Based on the authority delegated to us by the Director under 37 C.F.R. § 42.4(a), we may not institute an IPR unless the information presented in the Petition and any response thereto shows “there is 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) (2018). Taking into account USAA’s Preliminary Response together with the arguments presented in the authorized briefing, we conclude that the information presented in the Petition does not establish that there is a reasonable likelihood that PNC would prevail in challenging any one of claims 1–30 of the ’681 patent as unpatentable. We, therefore, *deny* PNC’s Petition.

*A. Related Matters*

The parties indicate that USAA asserted two patents, including the ’681 patent, against PNC in a district court case captioned *United Services Automobile Ass’n v. PNC Bank N.A.*, No. 2:21-cv-00110-JRG (E.D. Tex.) (“*PNC II*”). Paper 6 (USAA’s Mandatory Notices Pursuant to 37 C.F.R. § 42.8), 2; Paper 18 (PNC’s Updated Mandatory Notices Pursuant to 37 C.F.R. § 42.8), 1. The parties also indicate that USAA asserted four additional patents, including two children patents of the ’681 patent, against PNC in a district court case captioned *United Services Automobile Ass’n v. PNC Bank N.A.*, No. 2:20-cv-00319-JRG (E.D. Tex.) (“*PNC I*”). *Id.* According to the parties, the district court consolidated *PNC I* and *PNC II* into a single action captioned *United Services Automobile Ass’n v. PNC Bank N.A.*, No. 2:20-cv-00319-JRG, Dkt. No. 144 (E.D. Tex. July 16, 2021). *Id.* Lastly, the parties indicate that USAA asserted three additional patents, one of which comes from the same family as the ’681 patent, against PNC in

a district court case captioned *United Services Automobile Ass’n v. PNC Bank N.A.*, No. 2:21-cv-00246-JRG (E.D. Tex.). *Id.*

In addition to PNC’s Petition, Wells Fargo Bank, N.A. (“Wells Fargo”), filed a petition challenging claims 1–30 of the ’681 patent in a proceeding captioned *Wells Fargo Bank, N.A. v. United Services Automobile Ass’n*, CBM2019-00028, Paper 2 (PTAB Mar. 27, 2019). Pet. 2; Paper 6, 3. In CBM2019-00028, Wells Fargo’s Petition was denied because Wells Fargo did not meet its burden of demonstrating that the ’681 patent qualifies as a covered business method patent that is eligible for review, as defined by § 18(d)(1) of the Leahy-Smith America Invents Act (“AIA”). CBM2019-00028, Paper 14 (PTAB Oct. 1, 2019). Roughly a year later, Mitek filed a petition challenging claims 1–30 of the ’681 patent in a proceeding captioned *Mitek Systems, Inc. v. United Services Automobile Ass’n*, IPR2020-01650, Paper 1 (PTAB Sept. 18, 2020). In IPR2020-01650, Mitek’s Petition was denied because Mitek did not present a sufficient rationale to combine the teachings of the asserted prior art in the manner required to account for all the limitations of the challenged claims. IPR2020-01650, Paper 21 (PTAB Mar. 9, 2021).

#### *B. The ’681 Patent*

The ’681 patent, titled “System and Method for Mobile Check Deposit,” issued from U.S. Patent Application No. 15/663,305 (“the ’305 application”), filed on July 28, 2017. Ex. 1001, codes (54), (45), (21), (22). The ’681 patent has an extensive chain of priority that ultimately results in it claiming the benefit of U.S. Patent Application No. 11/591,247 (Ex. 1042, “the ’247 application”), which was filed on October 31, 2006, and issued as U.S. Patent No. 7,873,200 B1 (Ex. 1038, “Oakes”). Ex. 1001, code (63).

The '681 patent recognizes that “[c]hecks typically provide a safe and convenient method for an individual to purchase goods and/or services.” Ex. 1001, 1:4–5. The '681 patent states that, “[although] a check may provide a payor with a convenient and secure form of payment, receiving a check may put certain burdens on the payee,” one of which is the “time and effort required to deposit the check.” *Id.* at 1:50–53. For instance, depositing a check by visiting a local bank branch and physically presenting the check to a bank teller requires a certain time commitment on behalf of the payee. *Id.* at 1:53–60. The '681 patent also states that “[a] check may pose other burdens for the payee.” *Id.* at 1:61. For instance, a payee may be limited in how it uses funds from a check because purchasing goods and/or services using the check requires the payee to endorse the check and then have a third party accept the check; such transactions often are disfavored because the seller of the goods and/or services “may not be willing to accept the risk that . . . [there are] insufficient funds to cover the check.” *Id.* at 1:61–2:3.

The '681 patent purports to address these burdens by providing “a convenient method of remotely depositing a check while enabling the payee to quickly access the funds from the check.” Ex. 1001, 2:8–10. Figure 2 of the '681 patent, reproduced below, illustrates one embodiment for depositing a check using a customer-controlled general purpose computer. *Id.* at 2:64–67.

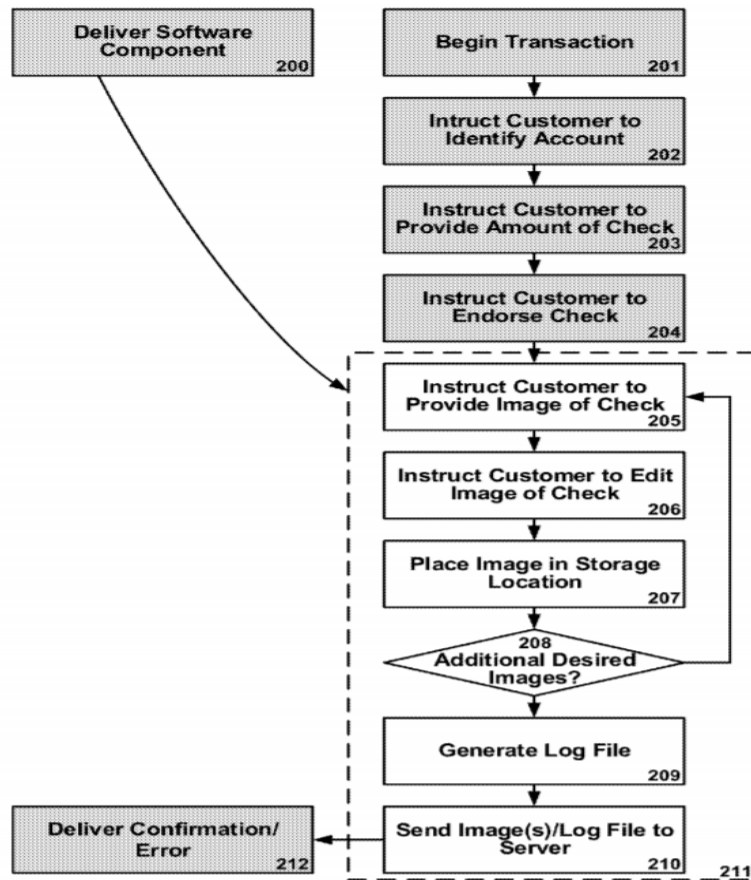


FIGURE 2

The method of depositing a check illustrated in Figure 2, reproduced above, begins with delivering or downloading a software component to the customer-controlled general purpose computer at step 200. *Id.* at 6:48–49. After downloading the software component, and assuming the customer-controlled general purpose computer has an appropriate image capture device, the customer begins the deposit transaction by, for example, using a browser application to access “a bank website, where a link may be available that causes the bank server to initiate a deposit transaction [at step] 201.” *Id.* at 7:17–23.

As further shown in Figure 2, reproduced above, the customer identifies the account into which he/she wishes to deposit the check at

step 202, identifies the amount of the check he/she wishes to deposit in the selected account at step 203, and then endorses the check at step 204.

Ex. 1001, 7:25–26, 7:42–44, 7:48–49. The customer uses the image capture device to provide an image of the check at step 205. *Id.* at 7:50–52. For example, “[i]f the customer is instructed to take a digital photograph of the check using a digital camera, the customer may be instructed as to the position and orientation of the check, lighting, angle of [the] camera, distance and focal length (zoom) of [the] camera, and so forth.” *Id.* at 7:55–60. The software component next causes the image of the check to be presented to the customer for editing (e.g., “by asking the customer to crop and/or rotate the check image to a predetermined orientation [at step] 206”). *Id.* at 8:22–25.

In another embodiment, after the user receives an image of the check, Optical Character Recognition (“OCR”) may be performed on the Magnetic Ink Character Recognition (“MICR”) line location of the check to determine information, such as the payor bank’s routing number, the account number, and the check number. Ex. 1001, 9:17–22. The ’681 patent explains that the use of the OCR process permits reading (1) the bank’s routing number on the check itself so that it may be validated against a list of valid routing numbers, (2) both sides of the check to confirm that the check image includes a front image and back image (to avoid the problem where two front sides are scanned), and (3) the check amount location so that it may be compared to an amount previously indicated by the user, such as in step 203. *Id.* at 9:23–27, 9:35–46, 10:36–44.

The process illustrated in Figure 2 continues by placing “[a]n appropriately edited image of the check” in a storage location at step 207

and, if further images of the check are necessary at step 208, steps 205–207 may be repeated. Ex. 1001, 8:33–35. A log file also may be generated at step 209 “to collect data for processing or troubleshooting the deposit transaction” and placed in a storage location, along with the various images of the check. *Id.* at 8:40–44. After receiving and editing the desired images of the check, the log file is delivered to the bank server for processing the deposit at step 210. *Id.* at 8:45–47. If the bank server determines that the images of the check and any corresponding data “are sufficient to go forward with the deposit, the customer’s account may be provisionally credited, and a confirmation page may be delivered to the customer via the customer’s browser application [at step] 212.” *Id.* at 8:49–54.

### *C. Challenged Claims*

Of the challenged claims, claims 1, 12, and 30 are independent claims. Independent claim 1 is directed to “[a]n image capture and processing system for use with optical character recognition”; independent claim 12 is directed to “[a] system for allowing a customer to deposit a check using the customer’s own mobile device with a digital camera”; and independent claim 30 is directed to “[a] non-transitory computer readable medium storing an app that, when downloaded and run by a customer’s mobile device, causes the customer’s mobile device to perform” certain operations. Ex. 1001, 13:65–66, 15:18–20, 16:39–41. Claims 2–11 directly or indirectly depend from independent claim 1, and claims 13–29 directly or indirectly depend from independent claim 12. Independent claim 12 is illustrative of the challenged claims and is reproduced below:

12. A system for allowing a customer to deposit a check using the customer’s own mobile device with a digital camera,



the system configured to ask the customer to log in using a user name and password, the system including:

a customer's mobile device including:

camera software that works with the digital camera; and

a downloaded app associated with a bank to work with the camera software and to control submission of a check for deposit by causing the customer's mobile device to perform:

instructing the customer to have the digital camera take photos of front and back sides of the check;

displaying a graphical illustration to assist the customer in having the digital camera take the photos of the check, the illustration assisting the customer in placing the digital camera a proper distance away from the check for taking the photos;

presenting the photos of the check to the customer after the photos are taken;

confirming that the mobile check deposit can go forward after the system performs optical character recognition on the check, the optical character recognition determining an amount of the check and reading a Magnetic Ink Character Recognition (MICR) line; and

using a wireless network, transmitting a copy of the photos over a public communications network from the customer's mobile device and submitting the check for mobile check deposit in the bank after the photos of the check are presented to the customer;

a computer associated with the bank programmed to update a balance of an account to reflect the check submitted for mobile check deposit by the customer's mobile device,

the system configured to generate a log file for the mobile check deposit, the log file including an image of the check submitted for mobile check deposit.

Ex. 1001, 15:18–56.

*D. Asserted Prior Art References*

PNC relies on the prior art references set forth in the table below.

| <b>Name<sup>1</sup></b> | <b>Reference</b>   | <b>Dates</b>                                    | <b>Exhibit No.</b> |
|-------------------------|--------------------|---|--------------------|
| Oakes                   | US 7,873,200 B1    | issued Jan. 18, 2011;<br>filed Oct. 31, 2006    | 1038               |
| Roach                   | US 2013/0155474 A1 | published June 20, 2013;<br>filed Feb. 19, 2013 | 1040               |
| Medina                  | US 9,129,340 B1    | issued Sept. 8, 2015;<br>filed Dec. 30, 2010    | 1041               |

*E. Asserted Grounds of Unpatentability*

PNC challenges claims 1–30 of the '681 patent based on the asserted grounds of unpatentability set forth in the table below. Pet. 5, 28–104.

| <b>Claims Challenged</b> | <b>35 U.S.C. §<sup>2</sup></b> | <b>Reference(s)</b>  |
|--------------------------|--------------------------------|----------------------|
| 12–24, 26, 27, 29        | 102(b)                         | Oakes                |
| 12–24, 26, 27, 29        | 103(a)                         | Oakes, Medina        |
| 1–11, 25, 28, 30         | 103(a)                         | Oakes, Roach         |
| 1–11, 25, 28, 30         | 103(a)                         | Oakes, Roach, Medina |

**II. RPI ARGUMENTS UNDER § 312(a)(2) AND DISCRETIONARY DENIAL ARGUMENTS UNDER § 314(a)**

As we explain below in detail, we are denying PNC's Petition on the merits because PNC fails to demonstrate that the challenged claims of the '681 patent are not entitled to claim priority to the '247 application. That is,

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<sup>1</sup> For clarity and ease of reference, we only list the first named inventor.

<sup>2</sup> The AIA, Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013. Because the '681 patent claims priority to the '247 application, which was filed before this date, the pre-AIA versions of §§ 102 and 103 apply. Ex. 1001, code (63).

we are not persuaded by PNC’s arguments that the ’247 application does not provide sufficient written description support for the following: (1) a portable/mobile device with an integrated digital camera; (2) the portable/mobile device “checking for errors” before submitting a check for remote deposit; and (3) the portable/mobile device transmitting a copy of a check image having “a different electronic format than the [images captured by/photos taken with] the digital camera.” As a result, we determine that PNC has not demonstrated that Oakes, Medina, and Roach qualify as prior art to the challenged claims of the ’681 patent. Based on our determination in this regard, we need not reach the following three issues: (1) whether PNC’s Petition should be denied under § 312(a)(2) because Mitek should have been named as RPI; (2) whether the arguments and evidence presented in PNC’s Petition were considered and rejected previously in prior proceedings; and (3) whether the non-exclusive list of six factors set forth in *Fintiv* warrants us exercising our discretion to deny institution of an IPR when there is a related district court case involving the ’681 patent. *See* Prelim. Resp. 5–21; Pet. Reply 1–8; PO Sur-reply 1–8. Because we are denying the Petition on the merits, we make no reference in this Decision to the documents and information protected as confidential information in this proceeding. *See* Paper 19 (Order granting the parties’ Motions to Seal).

### III. ANALYSIS

#### *A. Claim Construction*

In an IPR proceeding based on a petition filed on or after November 13, 2018, such as here, claim terms are construed using the same claim construction standard as in a civil action under 35 U.S.C. § 282(b). *See* 37

C.F.R. § 42.100(b) (2019). That is, claim terms generally are construed in accordance with their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art and the prosecution history pertaining to the patent at issue. *Id.* The ordinary and customary meaning of a claim term “is its meaning to the ordinary artisan after reading the entire patent,” and “as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 1321 (Fed. Circ. 2005) (en banc).

PNC contends that, for purposes of this proceeding, we should adopt the constructions that USAA proposes in district court for the claim terms “mobile device,” “portable device,” and “digital camera.” Pet. 9 (citing Ex. 1002 ¶¶ 33, 34 (Declaration of Dr. Brian Noble, Ph.D., in support of Petition)). The constructions that USAA proposes in district court for these three claim terms are set forth in the table below.

| <b>Claim Term</b> | <b>USAA’s Proposed Construction</b>                       |
|-------------------|---|
| “mobile device”   | “handheld computing device”                               |
| “portable device” | “computing device capable of being easily moved manually” |
| “digital camera”  | No further construction necessary                         |

*Id.* (citing Ex. 1028, 15<sup>3</sup> (Joint Claim Construction and Prehearing Statement)).

In response, USAA contends that, on November 22, 2021, the district court issued a claim construction order that expressly rejects the

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<sup>3</sup> All references to the page numbers in the Joint Claim Construction and Prehearing Statement refer to the page numbers inserted by PNC in the bottom, left-hand corner of each page in Exhibit 1028.

constructions proposed by PNC in that forum and, instead, adopts USAA’s proposed constructions. Prelim. Resp. 22 (citing Ex. 1054, 18–19 (Claim Construction Memorandum Opinion and Order)). The district court’s constructions are summarized in the table below.

| <b>Claim Term</b>                                       | <b>District Court’s Construction</b>  |
|---|---|
| “mobile device”   | “handheld computing device”   |
| “digital camera”  | Plain meaning   |
| “mobile device associated with an image capture device” | Plain meaning (apart from the district court’s construction of “mobile device”) |
| “portable device”                                       | “computing device capable of being easily moved manually”                       |

*Id.* at 23 (citing Ex. 1054, 20). USAA, however, argues that, for purposes of this proceeding, PNC departs from its narrow constructions advanced in the district court and, instead, requests that we adopt the constructions that USAA proposed in the district court. *Id.* According to USAA, PNC’s approach to claim construction violates the requirement of 37 C.F.R. § 42.104(b)(3) that the Petition set forth “how the challenged claim is to be construed.” *Id.* at 24. USAA asserts that we should decline to institute an IPR on the basis that PNC fails to comply with this rule. *Id.* at 25.

Although USAA takes issue with PNC’s approach to claim construction for purposes of this proceeding, it does not appear that USAA disputes PNC’s position that we should apply the constructions for the claim terms “mobile device,” “portable device,” and “digital camera” that USAA proposed in the district court and, eventually, the district court adopted. *Compare* Ex. 1028, 15, *with* Ex. 1054, 20. Because there is no dispute

between the parties as to the construction of these three claim terms, we need not construe them for purposes of this Decision. *See, e.g., Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe 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))).

*B. Anticipation by Oakes and Obviousness Based, In Part, on Oakes*

PNC contends that (1) claims 12–24, 26, 27, and 29 of the ’681 patent are unpatentable under § 102(b) as anticipated by Oakes; (2) claims 12–24, 26, 27, and 29 of the ’681 patent are unpatentable under § 103(a) as obvious over the combined teachings of Oakes and Medina; (3) claims 1–11, 25, 28, and 30 of the ’681 patent are unpatentable under § 103(a) as obvious over the combined teachings of Oakes and Roach; and (4) claims 1–11, 25, 28, and 30 of the ’681 patent are unpatentable under § 103(a) as obvious over the combined teachings of Oakes, Roach, and Medina. Pet. 28–104. PNC argues that each of Oakes, Roach, and Medina qualifies as prior art to the ’681 patent because the challenged claims of the ’681 patent are not entitled to a priority date earlier than July 28, 2017. *Id.* at 4–5, 10–27. To support its priority argument, PNC asserts that the ’247 application, which is the ultimate parent application of the ’681 patent, does not provide sufficient written description support for the following: (1) a portable/mobile device with an integrated digital camera; (2) the portable/mobile device “checking for errors” before submitting a check for remote deposit; and (3) the portable/mobile device transmitting a copy of a check image having “a different electronic format than the [images captured by/photos taken with] the digital camera.” *Id.* at 10–27. In response, USAA contends that PNC

fails to demonstrate that Oakes, Medina, and Roach qualify as prior art to the '681 patent. Prelim. Resp. 25–64.

After reviewing the parties' arguments and evidence, we determine that PNC has not demonstrated that Oakes, Medina, and Roach qualify as prior art to the challenged claims of the '681 patent and, as a result, PNC has not demonstrated that there is a reasonable likelihood that it would prevail in challenging any one of claims 1–30 of the '681 patent. We begin our analysis with the principles of law that generally apply to a priority dispute, followed by an assessment of the level of skill in the art, and then we focus on the parties' contentions as to whether PNC demonstrates that Oakes, Medina, and Roach qualify as prior art to the '681 patent.

#### *1. Principles of Law*

“It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. § 112.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008) (quoting *In re Chu*, 66 F.3d 292, 297 (Fed. Cir. 1995)). “To satisfy the written description requirement [in § 112, first paragraph] the disclosure of the prior application must ‘convey with reasonable clarity to those skilled in the art that, as of the filing date sought, [the inventor] was in possession of *the invention*.’” *Id.* (alteration in original) (quoting *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991)).

“[T]he hallmark of written description is disclosure.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The sufficiency of written description support is based on “an objective inquiry

into the four corners of the specification from the perspective of a person of ordinary skill in the art.” *Id.* “Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.” *Id.* “[T]he level of detail required to satisfy the written description requirement” necessarily “varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” *Id.* The invention need not be described *in haec verba*, but a disclosure that merely renders obvious the claims does not provide adequate written description support. *Id.* at 1352.

The written description requirement “guards against the inventor’s overreaching by insisting that he recount his invention in such detail that his future claims can be determined to be encompassed within his original creation.” *Vas-Cath*, 935 F.2d at 1561 (quoting *Rengo Co. v. Molins Mach. Co.*, 657 F.2d 535, 551 (3d Cir. 1981)); *see also Cooper Cameron Corp. v. Kvaerner Oilfield Prods., Inc.*, 291 F.3d 1317, 1323 (Fed. Cir. 2002) (“[A] broad claim is invalid when the entirety of the specification clearly indicates that the invention is of a much narrower scope.”). However, “[a] claim will not be invalidated on section 112 grounds simply because the embodiments of the specification do not contain examples explicitly covering the full scope of the claim language.” *LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005); *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1344 (Fed. Cir. 2001) (“[A]n applicant is not required to describe in the specification every conceivable and possible future embodiment of his invention.”); *see also Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 93 F.3d 1572, 1582 n.7 (Fed. Cir. 1996) (“If [the applicant] did not consider the precise location of the lockout to be an element of his invention, he was free



to draft [his claim] broadly (within the limits imposed by the prior art) to exclude the lockout's exact location as a limitation of the claimed invention. Such a claim would not be unsupported by the specification even though it would be literally infringed by undisclosed embodiments." (citation omitted)).

### *2. Level of Skill in the Art*

There is sufficient evidence in the current record that enables us to determine the knowledge level of a person of ordinary skill in the art.

Relying on the testimony of Dr. Noble, PNC argues the following:

[a] person of ordinary skill in the relevant field of art . . . at the relevant time (2006–2017) of the '681 patent would have had a Bachelor's degree in computer science, computer engineering, electrical engineering, or equivalent field, and two years of experience in software development and programming in the area of image capturing/scanning technology involving transferring and processing of image data to and at a server. Less work experience may be compensated by a higher level of education, and vice versa.

Pet. 10 (citing Ex. 1002 ¶¶ 37, 38). In response, USAA states that, "[f]or the purposes of [its] Preliminary Response only, USAA applies the level of skill in the art proposed by [PNC]." Prelim. Resp. 21. To the extent necessary, and for purposes of this Decision, we adopt PNC's assessment of the level of skill in the art because it is supported by the testimony of Dr. Noble and it is consistent with the '681 patent.

### *3. Priority Dispute*

At the outset, we reiterate that the '305 application that issued as the '681 patent was filed on July 28, 2017. Ex. 1001, codes (21), (22). The '681 patent claims priority through a series of continuation applications back to the '247 application. *Id.* at code (63). The parties agree that the

specification of the '681 patent is substantively identical to the specification of the '247 application. Pet. 27 (stating that “Oakes issued from the '247 [application], and shares the specification with the '681 patent.”); Prelim. Resp. 24 n.6 (stating that the '247 application “is the first application in a chain of direct continuation applications leading to the '681 patent and thus substantively identical to the '681 patent specification”).

The '247 application was filed on October 31, 2006, and issued as Oakes on January 18, 2011. Ex. 1038, codes (21), (22), (45). Medina issued on September 8, 2015, and claims the benefit of a provisional application filed on June 8, 2010. Ex. 1041, codes (43), (63). Roach was published on June 20, 2013, and claims the benefit of a continuation-in-part application filed on December 30, 2008. Ex. 1040, codes (43), (63). On their faces, Oakes, Medina, and Roach qualify as prior art to the challenged claims of the '681 patent only if the challenged claims are not entitled to claim priority back to the '247 application. *See* Pet. 4–5.

PNC contends that the '681 patent's priority claim to the '247 application is improper because the '247 application does not provide sufficient written description support for the claims of the '681 patent. *See* Pet. 4–5, 10–11. More specifically, PNC argues that the '247 application does not provide sufficient written description support for the following limitations: (1) “a portable device” and “a digital camera,” as recited in independent claim 1, and “a customer's mobile device” and “a digital camera,” as recited in independent claim 12, and similarly recited in independent 30 (*id.* at 13–24); (2) “the portable device . . . checking for errors,” as recited in independent claim 1, and “the customer's mobile device . . . checking for errors,” as recited in independent claim 30, and similarly

recited in dependent claim 28 (*id.* at 24–25); and (3) “the transmitted copy of the electronic images . . . having a different electronic format than the images captured with the digital camera,” as recited in independent claim 1, and “the copy has a different format than the photos taken with the digital camera,” as recited in dependent claim 25 (*id.* at 26–27). *See* Ex. 1001, 14:1–30, 14:55–56, 15:18–23, 16:23–25, 16:32–33, 16:38–43. Put simply, PNC contends that the lack of written description support in the ’247 application for these limitations “is fatal to the ’681 patent’s priority claim.” *Id.* at 14.

In response, USAA asserts that PNC “fails to put forth credible evidence supporting its assertion that the ’681 patent claims lack support in the original specification.” Prelim. Resp. 26. USAA contends that the ’247 application provides sufficient written description support for all the limitations identified by PNC. *Id.* at 30–54 (addressing a portable/mobile device with an integrated digital camera), 55–61 (addressing the portable/mobile device “checking for errors” before submitting a check for remote deposit), 61–64 (addressing the portable/mobile device transmitting a copy of a check image having “a different electronic format than the [images captured by/photos taken with] the digital camera”). From this, USAA submits that PNC fails to demonstrate that Oakes, Medina, and Roach qualify as prior art to the ’681 patent and, therefore, that institution should be denied. *Id.* at 25–26. We address the grouping of limitations identified above in turn.

a. “a portable device” and “a digital camera”/“a customer’s mobile device” and “a digital camera”

Beginning with the first grouping of disputed limitations (which we refer to as “the device limitations”), we clarify the issue presented with respect to these limitations.<sup>4</sup>

PNC contends that the ’247 application does not provide sufficient written description support for the device limitations because these limitations are broad enough to include “a portable/mobile device with an integrated digital camera” and such a device is not described in the ’247 application. *See* Pet. 13–24. Notably, elsewhere, PNC affirmatively contends that the ’247 application *discloses* these limitations—in fact, PNC’s anticipation ground is predicated on this contention. *See* Pet. 28–33 (arguing that Oakes, the patent that issued from the ’247 application, alone discloses this limitation). Accordingly, for its written description argument, PNC takes issue only with the *scope* of these limitations. *See id.* at 31–32 (addressing the interplay between the written description and anticipation arguments). Thus, this case is unlike many written description disputes, in which a party contends that the priority document fails to include a disclosure of the limitations. Here, the issue is specifically whether the independent claims are overbroad (and thus lacking in written description support) because the claim scope encompasses a digital camera *integrated into* the portable/mobile device.

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<sup>4</sup> We consider only the arguments presented and developed in the Petition. Although we do not agree with these arguments, our Decision should not be construed as an independent assessment of whether the ’247 application provides written description support for all the inventions claimed in the ’681 patent.

PNC’s priority argument is based on two premises, which we assume *arguendo* to be true for purposes of this Decision. First, PNC contends that the device limitations are broad enough to encompass a portable/mobile device with an integrated digital camera. Pet. 9–10, 13–14; *see also* Ex. 1054, 14–20 (construing the claim language in this manner). Second, PNC contends that “[t]he ’247 [application] does not disclose a portable/mobile device with an integrated digital camera.” Pet. 16; *see also id.* at 14–19 (analysis supporting assertion); *cf.* Prelim. Resp. 30 (appearing to agree that the ’247 application does not “expressly stat[e] that the two may be in a single housing”).

But, even accepting these two premises, we do not agree with the conclusion PNC asks us to draw from them. In particular, PNC appears to contend that we should find that the ’247 application does not provide sufficient written description support for the device limitations *merely because* the scope of the independent claims encompass a configuration that is not described expressly in that document. *See* Pet. 16, 18–19. But this reflects a misunderstanding of the law—a claim *can* be broader than the embodiments disclosed. *See, e.g., Rextord*, 274 F.3d at 1344 (“[A]n applicant is not required to describe in the specification every conceivable and possible future embodiment of his invention.”); *see also Ethicon*, 93 F.3d 1582 n.7 (noting that a claim may be “literally infringed by undisclosed embodiments” and yet sufficiently supported); *In re Smythe*, 480 F.2d 1376, 1382 (C.C.P.A. 1973) (“We cannot agree with the broad proposition . . . that in every case where the description of the invention in the specification is narrower than that in the claim there has been a failure to fulfill the [written] description requirement in section 112.”).

We acknowledge that there are situations where a claim's breadth results in a lack of written description support, but PNC fails to show that such a situation is present here. In its argument, PNC primarily relies on *Reckitt*, but this case is unavailing. See Pet. 13–15, 19, 32 (citing *Reckitt Benckiser LLC v. Ansell Healthcare Prods. LLC*, IPR2017-00063, Paper 38 (PTAB Jan. 30, 2018)). First, *Reckitt* is a non-precedential Board decision that is not binding on this panel.<sup>5</sup> Second, and perhaps more importantly, the case is readily distinguishable on its facts. See Prelim. Resp. 30–31 (distinguishing *Reckitt* from the circumstances presented here). In particular, in *Reckitt*, the Board panel found that claims lacking a pre-vulcanization requirement lacked written description support in the priority document, noting that “[p]re-vulcanization [was] not some ancillary feature *but rather the very heart of the invention.*” *Reckitt*, IPR2017-00063, Paper 38 at 12, 14–15 (emphasis added). However, “[PNC] identifies nothing whatsoever in the ’247 application suggesting that it is important—much less the ‘very heart of the invention’—that the described image capture device be in a housing entirely separate from the described general purpose computer.” Prelim. Resp. 31. In fact, the Petition identifies (and we perceive) no reason why the relative location of the general purpose computer (i.e., the portable/mobile device) and the image capture device

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<sup>5</sup> In addition, written description is an “intensively fact-oriented” inquiry, and as a consequence, another case, with its “necessarily varied facts,” is highly unlikely to “control[] the resolution of the written description issue in this case.” *Indivior UK Ltd. v. Dr. Reddy’s Lab ’ys S.A.*, 18 F.4th 1323, 1329–30 (Fed. Cir. 2021).

(i.e., the digital camera) is even *relevant* to the invention described in the '247 application.

Stepping back, the '247 application describes at least one invention for remote deposit of a check using a general purpose computer (e.g., a laptop) that receives an image of the check from an associated image capture device (e.g., a digital camera). *E.g.*, Ex. 1042 ¶¶ 7, 8, 20, 25, 32, 43, Fig. 1. What is important to this invention is that the image capture device and general purpose computer are “communicatively coupled”—not their relative location. *Id.* ¶ 25; *accord* Prelim. Resp. 32–33. Moreover, the '247 application does not limit its inventions to only those remote deposits performed using a general purpose computer that is *separate* from an image capture device.<sup>6</sup> Indeed, the '247 application broadly describes the image capture device, noting it can be “a scanner or digital camera” or “other image capture apparatus.” Ex. 1042 ¶¶ 8, 25. The '247 application also indicates that the general purpose computer and image capture device are “customer-controlled” and “electronics that today’s consumers actually own or can easily acquire.” *Id.* ¶¶ 20–22. Based on these disclosures, we find that a person of ordinary skill in the art would have understood the '247 application to reasonably convey possession of both integrated and non-

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<sup>6</sup> PNC contends that a person of ordinary skill in the art would have understood that certain aspects of the disclosure in the '247 application would not be necessary if the image capture device were integrated into the general purpose computer. *See* Pet. 16–18 (citing Ex. 1042 ¶¶ 8, 25, 43, 44, 75, Fig. 1; Ex. 1002 ¶¶ 42–47). Even if PNC were correct, those passages simply provide a discussion of an embodiment where these components are separate. They do not show that the inventions *require* the components to be separate.

integrated configurations. *See also In re Rasmussen*, 650 F.2d 1212, 1215 (C.C.P.A. 1981) (explaining that claims with generic step of “adheringly applying” one layer to an adjacent layer satisfied the written description requirement because “one skilled in the art who read [the] specification would understand that it is unimportant how the layers are adhered, so long as they are adhered”).

PNC’s reliance on *LizardTech*, *Tronzo*, and *ICU Medical* is misplaced. *See* Pet. 19–20, 24 (citing *ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368 (Fed. Cir. 2009); *LizardTech*, 424 F.3d 1336; *Tronzo v. Biomet, Inc.*, 156 F.3d 1154 (Fed. Cir. 1998)). As the U.S. Court of Appeals for the Federal Circuit explained, “[i]n each of those cases, the specification unambiguously limited the scope of the invention.” *Crown Packaging Tech., Inc. v. Ball Metal Beverage Container Corp.*, 635 F.3d 1373, 1382 (Fed. Cir. 2011). However, PNC provides (and we perceive) no justification for coming to a similar conclusion here. PNC also cites to *Anascape*, but that case is similarly distinguishable. *See* Pet. 12, 19 (citing *Anascape, Ltd. v. Nintendo of Am. Inc.*, 601 F.3d 1333, 1335 (Fed. Cir. 2010)); *Anascape*, 601 F.3d at 1336–37 (“Nintendo counts over twenty explicit statements that the invention is directed to a single input member that is operable in six degrees of freedom,” and the patent “stresses the advantages of using a single input member operable in six degrees of freedom.”).

Finally, we do not agree with PNC’s genus-species analysis, which effectively reorganizes the same considerations into a different framework. *See* Pet. 19–24. According to PNC, the device limitations represent a genus “that includes (1) a portable/mobile device separate from a digital camera and (2) a portable/mobile device with an integrated digital camera.” *Id.* at



19. PNC acknowledges that the '247 application discloses a laptop satisfying the former species, but we find that the '247 application's disclosure is representative of both alternatives, as discussed above. *See, e.g.*, Ex. 1042 ¶¶ 7, 8, 20, 25, 32, 43, Fig. 1. We also find that a person of ordinary skill in the art would have understood the '247 application to reasonably convey possession of the single non-enumerated species—indeed, as USAA notes, “one would only need to think of the *only other configuration of portable/mobile device* in the market.” Prelim. Resp. 49. Further, there is no evidence that the other, non-enumerated species was in any way unpredictable. *Cf.* Pet. 23 (arguing, instead, that a person of ordinary skill in the art “would not have expected” the non-enumerated species to “have performed as well”). In addition, the general predictability of the electrical arts further supports our finding that disclosure of one of the two species sufficiently discloses the genus based on these particular facts. *Cf. Bilstad v. Wakalopulos*, 386 F.3d 1116, 1125 (Fed. Cir. 2004) (“If the difference between members of the group is such that the person skilled in the art would not readily discern that other members of the genus would perform similarly to the disclosed members, i.e., if the art is unpredictable, then disclosure of more species is necessary to adequately show possession of the entire genus.”).

We have considered Dr. Noble's supporting testimony, but it suffers from the same deficiencies as PNC's arguments. *See* Ex. 1002 ¶¶ 42–58. Moreover, in our view, Dr. Noble does not explain sufficiently his conclusions regarding what a person of ordinary skill would have understood the inventor of the '247 application to possess (or not possess) and, accordingly, we assign little weight to his testimony on this particular

issue. *E.g., id.* ¶¶ 46, 54–57; *see TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1358 (Fed. Cir. 2019) (“Conclusory expert testimony does not qualify as substantial evidence.”).

In summary, even assuming, as we have, that the independent claims are broad enough to encompass a portable/mobile device with an integrated digital camera and that the ’247 application does not expressly describe such a device, we do not agree with the arguments raised in the Petition alleging that the ’247 application fails to provide sufficient written description support for the device limitations.

*b. “the portable device . . . checking for errors”/“the customer’s mobile device . . . checking for errors”*

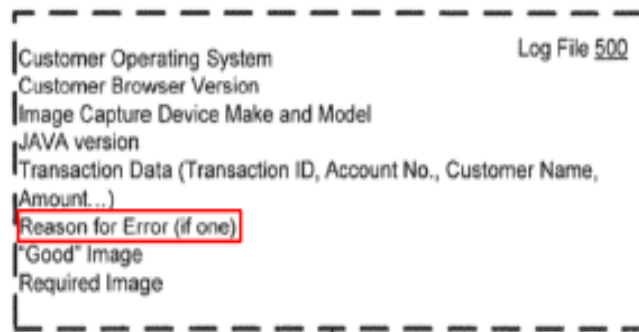
Turning to the second grouping of limitations, PNC contends that the ’247 application does not provide sufficient written description support for “the portable device . . . checking for errors,” as recited in independent claim 1, and “the customer’s mobile device . . . checking for errors,” as recited in independent claim 30, and similarly recited in dependent claim 28 (“the ‘checking for errors’ limitations”). *See* Pet. 24–25. More specifically, PNC argues that “[t]he ’247 [application] consistently describes error-checking solely as being performed *by a server*”—not the portable/mobile device. *Id.* at 24. To support this argument, PNC directs us to Figure 3 and its corresponding description of the server validating check information and, if validation fails, issuing an error message. *Id.* at 24–25 (citing Ex. 1042 ¶¶ 50, 53, 56, 61, Fig. 3; Ex. 1002 ¶¶ 60, 61). PNC also argues that the language in the ’247 application stating “alternative configurations are readily achievable by moving functions from the server to software component and vice-versa” is tied to the embodiment illustrated in Figure 2

and does not apply to other figures. *Id.* at 25 (quoting Ex. 1042 ¶ 36). In any event, PNC argues that this alternative configuration language is nothing more than boilerplate language and it cannot provide sufficient written description support for specific limitations. *Id.*

In response, USAA disputes PNC’s assertion that the ’247 application does not provide sufficient written description support for the “checking for errors” limitations. *See* Prelim. Resp. 55–60. USAA argues that the alternative configuration language in the ’247 application that PNC identifies, discussed above, applies to both Figures 2 and 3, and this language amounts to sufficient evidence that would demonstrate to a person of ordinary skill in the art that the inventors had possession of “an invention in which checking for errors could occur on the server, on the customer’s device, or both.” *Id.* at 55–58. USAA also argues that, setting aside the alternative configuration language in the ’247 application, the generation of a log file at step 209 of Figure 2 is performed by the software component, and Figure 5 clearly illustrates that the log file includes “Reasons for Error (if one).” *Id.* at 58–61 (citing Ex. 1042 ¶¶ 47, 49, 76, Figs. 2, 5). Based on these disclosures, USAA asserts that the ’247 application provides sufficient written description support for “an embodiment in which the portable/mobile device checks for errors (e.g., in order to store the reason for error, among other data, in a log file) prior to transmitting check images and submitting the check for mobile . . . deposit.” *Id.* at 61.

On this record, we do not agree with PNC’s arguments that the ’247 application lacks sufficient written description support for the “checking for errors” limitations. Figure 2 of the ’247 application illustrates that the software component executing on the portable/mobile device—not the

server—“Generate[s] Log File” at step 209 prior to “Send[ing] Image(s)/Log File to Server” at step 210. Ex. 1042 ¶¶ 48, 49, Fig. 2. “The log file is discussed further in connection with Figs. 4 and 5.” *Id.* ¶ 48. Figure 4 of the ’247 application illustrates, in relevant part, that the server “Receive[s] Log File data from Software Component” at step 405. *Id.* ¶ 71, Fig. 4. A partial version of Figure 5 of the ’247 application, reproduced below with USAA’s annotations, illustrates an exemplary log file. *Id.* ¶¶ 17, 75.



Prelim. Resp. 60. This partial, annotated version of Figure 5, reproduced above, illustrates that exemplary log file 500 includes, among other things, a “Reason for Error (if one).” Ex. 1042 ¶ 76, Fig. 5. According to the ’247 application, the “[r]eason for error may be provided if an error occurred – for example, due to an invalid check routing number, different amounts identified by the customer and the OCR process, etc.” *Id.* Therefore, contrary to PNC’s argument, the ’247 application discloses an embodiment where the software component executing on the portable/mobile device checks for errors and, if an error occurred, the software component generates a log file that includes reasons for error prior to transmitting the log file to the server.

PNC’s reliance on Dr. Noble’s supporting testimony is unavailing. *See* Ex. 1002 ¶¶ 60–62. We do not credit his testimony on this particular

issue because he narrowly focuses on the method for processing a check deposit illustrated in Figure 3 of the '247 application and he does not address squarely the disclosures in the '247 application identified above. Accordingly, we do not agree with PNC's arguments that the '247 application fails to provide sufficient written description support for the "checking for errors" limitations.

- c. *"the transmitted copy of the electronic images . . . having a different electronic format than the images captured with the digital camera" / "the copy has a different format than the photos taken with the digital camera"*

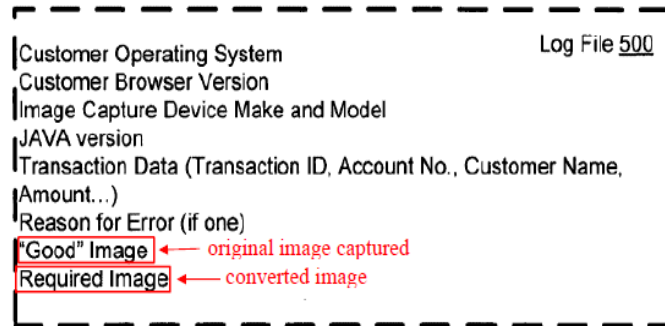
Turning to the third grouping of limitations, PNC contends that the '247 application does not provide sufficient written description support for "the transmitted copy of the electronic images . . . having a different electronic format than the images captured with the digital camera," as recited in independent claim 1, and "the copy has a different format than the photos taken with the digital camera," as recited in dependent claim 25 ("the 'different format' limitations"). See Pet. 26–27. More specifically, PNC argues that the '247 application discloses the general purpose computer first transmitting a check image to the server, and then the server converting the check image to a different format. *Id.* at 26 (citing Ex. 1042 ¶¶ 10, 62, 70–74). PNC argues that the '247 application does not disclose the general purpose computer converting the check image to a different format prior to transmitting the converted check image to the server. *Id.* (citing Ex. 1002 ¶ 65). In addition, PNC reiterates its assertion that the alternative configuration language in the '247 application is nothing more than boilerplate language and it cannot provide sufficient written description

support for specific limitations. *Id.* at 26–27 (citing Ex. 1042 ¶ 36; Ex. 1002 ¶ 66).

In response, USAA disputes PNC’s assertion that the ’247 application does not provide sufficient written description support for the “different format” limitations. *See* Prelim. Resp. 61–64. USAA argues that, although the ’247 application discloses “an option whereby a server converts the check image from a first format to a second format, the ’247 application also expressly discloses that the portable/mobile device can provide both the original format and a converted format [of the check image] to the server.” *Id.* at 61–62. USAA then refers back to the disclosure in the ’247 application of the portable/mobile device generating and transmitting a log file to the server, and argues that the log file may include both the original image captured by the digital camera and the converted image required by Check 21 regulations. *Id.* at 62–63 (citing Ex. 1042 ¶¶ 10, 48, 49, 62, 70, 71, Fig. 2 (steps 209, 210), Fig. 5). Based on these disclosures, USAA asserts that the ’247 application provides sufficient written description support for the “different format” limitations because the ’247 application expressly discloses that “the log file (1) is generated by the portable/mobile device, (2) includes the converted image, and (3) is transmitted by the portable/mobile device to the server.” *Id.* at 63.

On this record, we do not agree with PNC’s arguments that the ’247 application lacks sufficient written description support for the “different format” limitations. As we explain above, the ’247 application discloses an embodiment where the software component executing on the portable/mobile device generates and transmits a log file to the server. *See supra* Section III.B.3.b. A partial version of Figure 5 of the ’247

application, reproduced below with USAA’s annotations, illustrates an exemplary log file. Ex. 1042 ¶¶ 17, 75.



Prelim. Resp. 63. This partial, annotated version of Figure 5, reproduced above, illustrates that exemplary log file 500 includes, among other things, a “Good’ Image” and a “Required Image.” Ex. 1042 ¶ 76. According to the ’247 application, “the ‘good’ image” is a “customer generated image” and “the ‘required’ image” is “required for bank-to-bank image transfer.” *Id.* The ’247 application further discloses that “it is desirable in some embodiments to retain both a ‘good’ image in an initial format” (e.g., “in a [Joint Photographic Experts Group] format” and a required image (i.e., “the modified bi-tonal [Tag Image File Format] required by Check 21” regulations). *Id.* ¶ 62. Therefore, contrary to PNC’s argument, the ’247 application discloses an embodiment where the software component executing on the portable/mobile device converts a check image from a first format to a second format, and then generates a log file that includes both the first and second formatted check images prior to transmitting the log file to the server.

Once again, PNC’s reliance on Dr. Noble’s supporting testimony is unavailing. *See* Ex. 1002 ¶¶ 65, 66. We do not credit his testimony on this particular issue because he narrowly focuses on the embodiment in the ’247

application where the server converts the check image from a first format to a second format and does not address squarely the disclosures in the '247 application identified above. Accordingly, we do not agree with PNC's arguments that the '247 application fails to provide sufficient written description support for the "different format" limitations.

*d. Summary*

PNC's contention that Oakes, Medina, and Roach qualify as prior art to the '681 patent is premised on its argument that the '681 patent is not entitled to claim priority to the '247 application. That contention is, in turn, premised on PNC's unpersuasive argument that the '247 application fails to provide sufficient written description support for the following: (1) a portable/mobile device with an integrated digital camera; (2) the portable/mobile device "checking for errors" before submitting a check for remote deposit; and (3) the portable/mobile device transmitting a copy of a check image having "a different electronic format than the [images captured by/photos taken with] the digital camera." As a result, we determine that PNC has not demonstrated that Oakes, Medina, and Roach qualify as prior art to the challenged claims of the '681 patent.

Accordingly, we determine that PNC has not demonstrated a reasonable likelihood that it would prevail on its assertions that (1) the subject matter of claims 12–24, 26, 27, and 29 of the '681 is anticipated by Oakes; (2) the subject matter of claims 12–24, 26, 27, and 29 of the '681 patent would have been obvious over the combined teachings of Oakes and Medina; (3) the subject matter of claims 1–11, 25, 28, and 30 of the '681 patent would have been obvious over the combined teachings of Oakes and Roach; and (4) the subject matter of claims 1–11, 25, 28, and 30 of the '681



patent would have been obvious over the combined teachings of Oakes, Roach, and Medina.

#### IV. CONCLUSION

Taking into account USAA's Preliminary Response, we conclude that the information presented in the Petition does not demonstrate that there is a reasonable likelihood that PNC would prevail in challenging any one of claims 1–30 of the '681 patent as unpatentable.

#### V. ORDER

In consideration of the foregoing, it is ORDERED that the Petition is *denied* and no trial is instituted.

IPR2021-01381  
Patent 10,013,681 B1

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