UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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WELLS FARGO BANK, N.A.,
Petitioner,

v.

UNITED SERVICES AUTOMOBILE ASSOCIATION,
Patent Owner.

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Case CBM2019-00004
Patent 8,977,571 B1

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Before JONI Y. CHANG, RAMA G. ELLURU, and
STACEY G. WHITE, *Administrative Patent Judges*.

ELLURU, *Administrative Patent Judge*.

DECISION
Denying Institution of Covered Business Method Patent Review
37 C.F.R. § 42.208

Petitioner, Wells Fargo Bank, N.A., filed a Petition (Paper 2, "Pet.")
seeking to institute a covered business method patent review of claims 1–20
of U.S. Patent No. 8,977,571 B1 (Ex. 1001, "the '571 patent"). Before the
Patent Owner Preliminary Response was due, we ordered that the
Preliminary Response provide Patent Owner's preliminary response to
Petitioner's patent eligibility challenges under the framework of PEG[1].
Paper 6. We further authorized Petitioner to file a 5-page reply to the
Preliminary Response addressing only its patent eligibility challenges under
the framework of PEG. *Id.* Patent Owner, United Services Automobile
Association, filed its Preliminary Response (Paper 7, "Prelim. Resp.") and
Petitioner filed its Reply to the Preliminary Response. (Paper 9). Patent
Owner, with authorization (Paper 14), filed a sur-reply responding to
Petitioner's Reply to the Preliminary Response addressing Petitioner's
argument(s) that extrinsic evidence of industry acceptance of Patent Owner's
invention is irrelevant to the patent eligibility analysis. Paper 18.

For the reasons discussed below, Petitioner has not demonstrated that
the '571 patent is eligible for a covered business method patent review under
section 18 of the AIA.

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[1] "PEG" refers to the 2019 Revised Patent Subject Matter Eligibility
Guidance ("PEG"), 84 Fed. Reg. 50 (Jan. 7, 2019), available at
https://www.federalregister.gov/documents/2019/01/07/2018-28282/2019-
revised-patent-subject-matter-eligibility-guidance.

I. BACKGROUND

A. *The '571 Patent (Ex. 1001)*

The '571 patent is titled "Systems and Methods For Image Monitoring of Check During Mobile Deposit." The '571 patent recognizes that "depositing a check typically involves [a payee] going to a local bank branch and physically presenting the check to a bank teller." Ex. 1001, 1:22–24. Thus, "[t]o reduce such burdens for the payee, systems and methods have been developed to enable the remote deposit of checks." *Id*. at 1:24–26. The '571 patent states:

> For example, the payee may capture a digital image of a check using a mobile device. The financial institution may then receive from the payee the digital image of the check. The financial institution may then use the digital image to credit funds to the payee.

Id. at 1:26–30. However, the '571 patent recognizes that "[s]uch a technique requires the efficient and accurate detection and extraction of the information pertaining to a check in the digital image" and that "[c]apturing a digital image at a mobile device that allows for subsequent detection and extraction of the information from the digital image is difficult." *Id*. at 1:26–35. In addition, the '571 patent discloses that electronically exchanging a check image requires compliance with the "Check 21 compliant format." *Id*. at 12:9–14. The specification explains that:

> The Check Clearing for the 21st Century Act (or Check 21 Act) is a United States federal law that allows the recipient of a paper check to create a digital version, thereby eliminating the need for further handling of the physical document. The Check 21 standard for electronic exchange is defined in the

standard DSTU X9.37-2003 ("X9.37").[2]   It is a *binary interchange format*.

Id. at 12:19–25 (emphasis added).

The '571 patent specification discloses an invention wherein:

[a]n image of a check that is in the field of view of a camera is monitored prior to the image of the check being captured. The camera is associated with a mobile device. The *monitoring may be performed by the camera, the mobile device, and/or a financial institution* that is in communication with the mobile device. When the image of the check in the field of view passes monitoring criteria, an image may be taken by the camera and provided from the mobile device to a financial institution. The check may be deposited in a user's bank account based on the image.

Id. at 1:38–47 (emphasis added). The specification explains that "[t]o *increase the likelihood of capturing a digital image of the check **108** that may be readable and processed* such that the check **108** can be cleared, the image is monitored for compliance with one or more monitoring criteria, prior to the image of the check **108** being captured." *Id*. at 3:54–58 (emphasis added). The specification further states that "[a]n application may *monitor whether* the check **108** is sufficiently within the frame of the camera and has a *high enough quality for subsequent processing*." *Id*. at 3:61–64 (emphasis added). *See also id*. at 4:17–22 ("By ensuring that the image of the check passes monitoring criteria during pre-image capture monitoring, *the number of nonconforming images of checks is reduced* during presentment of the images to a financial institution for processing and

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[2] Ex. 2030, 2 ("Retired: DSTU X9.37–2003," "Specifications for Electronic Exchange of Check and Image Data"); *id*. ("DTSU X9.37–2003 has been replaced by ANS X9.100-80-2006. The *technical content* of this RETIRED document is identical to the original DSTU") (emphasis added).

clearing.") (emphasis added); *id*. at 7:52–57 ("In an implementation, corner detection itself may be a monitoring criterion, such that if corner detection of the check **108** in the image **230** is achieved, then it may be concluded that the image **230** may be properly processed and cleared by a depository (i.e., the image **230** passes the monitoring criteria)."); *id*. at 8:45–49 ("If the MICR line can be detected, it may be determined that the image **230** may be captured and sent to the financial institution for processing and clearing of the check **108** (i.e., the image passes the monitoring criterion directed to MICR line detection).)"); *id*. at 10:6–13 ("The density distribution for each segment (or for the entire image **230**) may be analyzed to determine whether the light contrast and/or light brightness is *appropriate for processing and clearing of the check **108*** in the image **230** (and *thus passes that monitoring criterion*) or whether the light contrast and/or light brightness does not pass the monitoring criterion and the camera **207**, the check **108**, and/or the light source should be adjusted or repositioned.") (emphasis added); *id*. at 12:9–14 ("the Software object may capture the image of the check **108** and transmit that image to the server **322** that in turn may perform those operations, *verifies that the image quality is within acceptable thresholds*, and communicates that verification back to the client **320**, which can then instruct the user **102** to take a picture of the other side of the check **108**.") (emphasis added); *id*. at 13:38–40 ("[c]ompliance with the monitoring criteria is intended to ensure that the image of the check is suitable for one or more processing tasks.").

The '571 patent specification also discloses that "[i]n an implementation, the results of the monitoring may indicate that the camera and/or the check should be repositioned and/or the light source should be

adjusted prior to an image capture in order to capture an image of the check that may be processed properly, e.g., *to have the data from the check obtained without error from the image, so that that check can be cleared*." *Id.* at 15:43–49 (emphasis added). The specification explains that "feedback based on the results may be generated and provided visually and/or aurally to the user via the camera and/or the mobile device" and that "the feedback may be provided if the image fails to pass the monitoring criteria." *Id.* at 15:50–53.

B. Illustrative Claim

Petitioner challenges claims 1–20 of the '571 patent, of which claims 1, 9, and 14 are independent. Claim 1 illustrates the subject matter:

> 1. A non-transitory computer-readable medium comprising computer-readable instructions for depositing a check that, when executed by a processor, cause the processor to:
>
> monitor an image of the check in a field of view of a camera of a mobile device with respect to a monitoring criterion to using an image monitoring and capture module of the mobile device;
>
> capture the image of the check with the camera when the image of the check passes the monitoring criterion; and
>
> provide the image of the check from the camera to a depository via a communication pathway between the mobile device and the depository.

Id. at 21:6–17.

C. Related Proceedings

The parties identify the following district court case as being related: *United Services Automobile Association v. Wells Fargo Bank N.A.*, Case No. 2:18-CV-0245-JRG (E.D. Tex. June 7, 2018). Pet. 79; Paper 5, 2. Petitioner

also asserts that Patent Owner has "asserted the related U.S. Patent No. 9,818,090 ["'090 Patent"], in that same matter," and that Patent Owner also "asserted U.S. Patent Nos. 8,699,779 ["'779 patent"] and 9,336,517 ["'517 patent"] in that same litigation, which are not formally related to the '571 and '090 patents, but contain overlapping inventors and similar specifications and claims." Paper 12, 1. Petitioner also notes that it has filed CBM2019-00002[3], CBM2019-00003, and CBM2019-00005 challenging the '090 patent, '517 patent, and '779 patent, respectively, and IPR2019-00815 challenging the '090 patent. *Id*. at 1–2.

Petitioner also asserts that U.S. Patent Application No. 15/792,966 is pending and claims priority to the '571 patent. Pet. 73; Paper 12.

D. Real Party-in-Interest

The Petition identifies Wells Fargo Bank, NA as "the sole party that has funded this Petition and who has full and exclusive control over these proceedings," but "[o]ut of an abundance of caution," also identifies "WFC Holdings LLC and Wells Fargo & Co." as real parties-in-interest because "Wells Fargo Bank, N.A. is wholly-owned by WFC Holdings LLC, which in turn is wholly owned by Wells Fargo & Co." Pet. 79.

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[3] We note that we dismissed the petition and terminated the proceeding in CBM2019-00002. CBM2019-00002, Paper 16.

D.   *Evidence Relied Upon by Petitioner*

Petitioner relies on the following references:

Reference		Date	Exhibit
Ramachandran[4]	U.S. Application Publication No. 2009/0114716 A1	May 7, 2009	Ex. 1003
Yoon	U.S. Application Publication No. 2007/0262148 A1	Nov. 15, 2007	Ex. 1005

Petitioner also relies on the Declaration of Peter Alexander, Ph.D.
("Dr. Alexander"). Ex. 1002. Patent Owner relies on two declarations.
Ex. 2001, 2004.

E.   *Grounds Asserted*

Petitioner asserts the following grounds of unpatentability (Pet. 18–
19):

Ground	Claims Challenged	Basis	References
1	1–20	§ 101	N/A
2	1–20	§ 103	Ramachandran and Yoon

II. ANALYSIS

A.   *Claim Construction*

In a covered business method patent review based on a petition filed
before November 13, 2018, claim terms in an unexpired patent are
interpreted according to their broadest reasonable construction in light of the
specification of the patent in which they appear. 37 C.F.R. § 42.300(b)

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[4] Petitioner asserts that Ramachandran incorporates U.S Patent 7,419,093 by
reference in its entirety, and was issued on September 2, 2008. Pet. 18–19
(citing Ex. 1004).

(2017).[5] Consistent with that standard, claim terms are generally given their ordinary and customary meaning, as would have been understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Only terms which are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011); *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

Petitioner contends there are no "claim construction issues that would affect the outcome of trial on this petition." Pet. 12. Patent Owner likewise "does not contend that there are any claim construction issues that need to be addressed prior to the Board's decision on institution, other than that the pre-ambles of the claims are limiting." Prelim. Resp. 25. Patent Owner asserts that "[t]he term 'depositing a check' appears in the preamble of all the independent claims and serves as antecedent basis for the reference to 'check' in the body of the claim." *Id*.

We ordered the parties to file the claim construction briefing for the '571 patent, filed in the related District Court ("DCT") litigation. Paper 14, 4. Patent Owner filed its opening claim construction brief (Ex. 2052), Petitioner filed its responsive claim construction brief (Ex. 1049), and Patent

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[5] A different rule applies for later cases. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (amending 37 C.F.R. § 42.300(b) effective November 13, 2018). The current Petition was filed on November 8, 2018, prior to the effective date of the rule change.

Owner filed its reply claim construction brief (Ex. 2055).[6] We recognize

that the parties were applying a different claim construction standard in the

DCT proceeding and we evaluate the parties' arguments and evidence as

described in the DCT claim construction briefing in light of the broadest

reasonable interpretation standard that is applicable in this proceeding. In

addition, our evaluation is limited to the arguments and evidence that are of

record in this proceeding. We construe the following claim terms for

purposes of this decision.

<center>Preamble of Claim 1</center>

The preamble of claim 1 recites "[a] non-transitory computer-readable

medium comprising computer-readable instructions for depositing a check

that, when executed by a processor, cause the processor to . . . ."

In its DCT claim construction briefing, Patent Owner argues that the

preamble is limiting. Ex. 2052, 6–8. According to Patent Owner,

"'depositing a check' is an essential component of the claims." *Id*. at 6–7.

Specifically, asserts Patent Owner, "a POSA would understand the preamble

language to be important to the claims as a system or process for 'depositing

a check' [,which] involves different considerations as compared to a system

or process that captures images for noncheck deposit purposes." *Id*. at 7

(citation omitted). Patent Owner further asserts that "[t]he patent

specification places great emphasis on the importance of successful check

deposit to the invention, further indicating that the recitation of 'depositing a

check' in the claim pre-ambles was intended to be limiting." *Id*.

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[6] We reference these papers as the parties's "DCT claim construction
briefing."

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Petitioner, in its DCT claim construction briefing, disagrees that the preamble of claim 1 is limiting. Ex. 1049, 8. Petitioner contends that the claims are structurally complete without consideration of the preamble. *Id.* at 9–10. Petitioner, however, acknowledges that the preamble identifies the intended use of the claim. In particular, Petitioner states claim 1 requires "computer instructions for 'depositing a check.'" Pet. 13; Ex. 1049, 10 (Petitioner asserting in its DCT claim construction briefing that "[e]ven if the individual term 'a check' in the preamble is limiting, the remainders of the preambles (*i.e.*, the 'depositing' terms)—which are the only parts of the preambles that the parties actually dispute—describe an intended use of the invention but do not provide a necessary structure for the invention or antecedent basis for any claim limitation, and are therefore not limiting.").

We determine that claim 1's preamble is limiting because it imposes a structural limitation on the claim in addition to specifying its intended use. "[W]hether to treat a preamble as a claim limitation is determined on the facts of each case in light of the claim as a whole and the invention described in the patent." *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2005) (quoting *Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 831 (Fed. Cir. 2003)). If the body of the claim "sets out the complete invention," the preamble is not ordinarily treated as limiting the scope of the claim. *Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1310 (Fed. Cir. 2002). But the preamble is limiting if it recites essential structure that is important to the invention or necessary to give meaning to the claim. *NTP, Inc. v. Research In Motion, Ltd.*, 418 F. 3d 1282, 1305–06 (Fed. Cir. 2005); *SanDisk Corp. v. Memorex Prods., Inc.*, 415 F.3d 1278, 1284 n.2 (Fed. Cir. 2005). That means if the claim drafter "chooses to use *both* the preamble

and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects." *Bicon*, 441 F.3d at 952 (quoting *Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995) (emphasis omitted)). Further, when the limitations in the body of the claim "rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention." *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003). The question whether the court should "treat a preamble as a limitation is a determination 'resolved only on review of the entire . . . patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim.'" *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1275 (Fed. Cir. 1989)).

Review of the claim language and the '571 patent specification confirms that the preamble limits the invention to particular steps being performed by the "processor" recited in the preamble. As noted above, the preamble recites "computer-readable instructions for depositing a check, when excuted by a processor, cause the processor to . . . ." The body of claim 1 recites "monitor an image of the check . . . ," "capture the image of the check . . . when the image of the check passes the monitoring criterion," and "provide the image of the check from the camera to a depository via a communication pathway." A plain reading of this claim language indicates that it is the claimed "processor" that performs these steps. *See* Prelim. Resp. 17, 22 (Patent Owner arguing that the claimed "processor" does the "monitor[ing]").

The patent specification confirms that a "processor" can perform these steps. For example, the specification describes a particular implementation in which "the positioning of the check in the image may be compared with an alignment guide . . . the measurements may be made by a processor in the camera **207**, the mobile device **106**, or a computing device at the financial institution to determine the check's position with respect to the alignment guide." Ex. 1001, 7:38–48; *see also id*. at 8:25–29. The specification further explains that "financial institution **130** may include any combination of systems and subsystems such as electronic devices," and that "[t]he electronic devices may include any combination of hardware components such as processors." *Id*. at 4:48–53. Thus, we determine that the preamble of claim 1 is limiting by requiring a "processor" to perform the claimed limitations, including "monitor[ing] an image of the check . . . with respect to a monitoring criterion" and "captur[ing] the image . . . when the image of the check passes the monitoring criterion" for the purpose of "depositing a check."

We also determine that the preamble provides an antecedent basis for the claim term "check." Patent Owner contends that "the recitation of a check that will be deposited in the pre-amble gives antecedent basis to the 'check' in the body of each of the claims." Prelim. Resp. 19. (citing *Pacing Techs., LLC v. Garmin Int'l, Inc.*, 778 F.3d 1021, 1024 (Fed. Cir. 2015) (finding the preamble limiting where terms in the preamble provided antecedent basis for limitations in the body of claims and noting that "[w]hen limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.") (citing *Eaton Corp. v. Rockwell Int'l*

Corp., 323 F.3d 1332, 1339 (Fed. Cir.2003))). According to the Patent

Owner, "the image that is being captured is an image that is going to be

depositable, which as disclosed in the specification requires satisfaction of

technical ANSI requirements." *Id*. at 18–19. Petitioner does not dispute that

the preamble provides an antecedent basis for the claim term "check." *See*

Ex. 1049, 10.

Thus, for purposes of this decision, we determine that the preamble of

claim 1 is limiting by requiring a "processor" to perform the claimed

limitations, including "monitor[ing] an image of the check . . . with respect

to a monitoring criterion" and "captur[ing] the image . . . when the image of

the check passes the monitoring criterion," for the purpose of "depositing a

check," the image of which check is monitored with respect to a monitoring

criterion and captured when the image passes the monitoring criterion.

"passes the monitoring criterion"

Claim 1 recites "capture the image of the check with the camera when

the image of the check passes the monitoring criterion."

The parties do not expressly construe this claim term. *See* Ex. 2052,

6–8 (Patent Owner citing portions of the specification referring to "passes

monitoring criteria" when arguing that the preamble is limiting); Ex. 1049,

21–27 (Petitioner construing the "capture" term, but not expressly the

"passes the monitoring criteria" term); Prelim. Resp. 59 ("[a]s the patent

explains, the purpose of the "monitoring criterion" is to ensure that the check

image is suitable for later deposit processing at the bank; that is, to avoid the

numerous technical problems that can occur when a bank attempts to deposit

or clear a check using an inadequate image.") (citing Ex. 1001, 13:38–40,

4:17–22).

The '571 patent specification repeatedly discloses that "passes the monitoring criteria" means determining that the check can be properly processed and cleared. For example, the '571 patent states that "[a]n application may monitor whether the check **108** is sufficiently within the frame of the camera and has a *high enough quality for subsequent processing.*" *Id*. at 3:61–64 (emphasis added); *see also id*. at 4:17–22 ("By ensuring that the image of the check passes monitoring criteria during pre-image capture monitoring, *the number of nonconforming images of checks is reduced* during presentment of the images to a financial institution for processing and clearing.") (emphasis added); *id*. at 7:52–57 ("In an implementation, corner detection itself may be a monitoring criterion, such that if corner detection of the check **108** in the image **230** is achieved, then it may be concluded that the image **230** may be properly processed and cleared by a depository (i.e., the image 230 passes the monitoring criteria)."); *id*. at 8:45–49 ("If the MICR line can be detected, it may be determined that the image **230** may be captured and sent to the financial institution for processing and clearing of the check **108** (i.e., the image passes the monitoring criterion directed to MICR line detection).."); *id*. at 10:6–13 ("[t]he density distribution for each segment (or for the entire image **230**) may be analyzed to determine whether the light contrast and/or light brightness is *appropriate for processing and clearing of the check 108* in the image **230** (and *thus passes that monitoring criterion*) or whether the light contrast and/or light brightness does not pass the monitoring criterion and the camera **207**, the check **108**, and/or the light source should be adjusted or repositioned.") (emphasis added); *id*. at 12:9–14 ("the Software object may capture the image of the check **108** and transmit that image to the server **322**

that in turn may perform those operations, *verifies that the image quality is within acceptable thresholds*, and communicates that verification back to the client **320**, which can then instruct the user **102** to take a picture of the other side of the check **108**.") (emphasis added); *id*. at 13:38–40 ("[c]ompliance with the monitoring criteria is intended to ensure that the image of the check is *suitable for one or more processing tasks*.") (emphasis added).

In addition, the '571 patent specification discloses that properly processing an image of a check entails obtaining check data without error from the image. Ex. 1001, 15:43–49 ("[T]he results of the monitoring may indicate that the camera and/or the check should be repositioned . . . in order to capture an image of the check that may be *processed properly*, e.g., *to have the data from the check obtained without error from the image*, so that the check can be cleared." (emphasis added)). The specification further discloses that "[f]inancial institution **130** may receive a digital image representing the check **108** and may use any known *image processing software* or other application(s) *to obtain the relevant data of the check **108** from the digital image*." (emphasis added). The specification also explains that "[t]o *increase the likelihood of capturing a digital image of the check **108** that may be readable and processed* such that the check **108** can be cleared, the image is monitored for compliance with one or more monitoring criteria, prior to the image of the check **108** being captured." *Id*. at 3:54–58 (emphasis added); *id*. at 4:61–63 ("[t]he electronic devices may receive the digital image and may perform an *analysis on the quality of the digital image, the readability of the data contained therein*, or the like.") (emphasis added).

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Thus, we determine, for purposes of this decision, that "passes the monitoring criterion" means determining that the quality of the monitored image feature is within acceptable thresholds so that check data can be electronically obtained from the image without error during electronic processing and clearing.

"a monitoring criterion"

Claim 1 recites "monitor an image of the check in a field of view of a camera of a mobile device with respect to a monitoring criterion." In its DCT claim construction briefing, Patent Owner refers to disclosure in the '571 patent specification to argue that "monitoring criterion" means "one or more of light contrast on the image, light brightness of the image, positioning of the image, dimensions, tolerances, character spacing, skewing, warping, corner detection, and MICR (magnetic ink character recognition) line detection." Ex. 2052, 15–17 (citing Ex. 1001, 4:3–8). Patent Owner asserts that "[a] POSA would understand the criteria listed in the specification to be the relevant monitoring criteria in the context of the invention because they reflect the various factors that influenced check image acceptance in the depository at the time of the invention." *Id.* at 16 (citing Ex. 5 ¶¶ 72–73).

Petitioner argues in its DCT claim construction briefing that no construction is necessary for this claim term. Ex. 1049, 19–21. In the alternative, Petitioner contends the term means "one or more standards, including things perceptible to the human eye, such as for [example,] identifying edges ('edge detection') or corners ('corner detection')." *Id.* Petitioner contends that "the specifications clearly indicate that the list of monitoring criterions is representative, not exhaustive, through their use of

the permissive word 'may.'" *Id*. at 20 (citing Ex. 1001, 4:3–8). In further support, Petitioner states that the specification "identifies other criterions elsewhere, including references to 'dimensions,' 'positioning,' '[a]ny known technique(s) for edge detection and/or corner detection,' and 'whether the MICR line can be detected and/or read.'" *Id*. (citing Ex. 1001, 3:58–4:8, 7:30–33, 7:48–57, 8:40–41). Petitioner further contends that the claimed "monitoring criterion" "*may* be something perceptible to a human" and "there is nothing in the specification that *requires* the criterion be something imperceptible by a human." *Id*. at 20–21.

With respect to specification's recitation of "may," Patent Owner responds in its DCT claim construction briefing, that the word "may" "simply indicates that one may employ one or more of the listed categories of monitoring criteria, as opposed to all of them." Ex. 2055, 12. According to Patent Owner, "the definition in the specification at [Ex. 1001, 4:3–8] does not catalogue every single technical feature that fits within the categories referenced in the definition: that is why it provides categories." *Id*. Patent Owner concludes that Petitioner's "claim that the definition of the categories that make up monitoring criteria in the specification is not an 'exhaustive list' of the features monitored is tantamount to criticizing a definition of cat simply because it does not literally list every species of cat." *Id*. at 13.

We disagree with both constructions proposed for "a monitoring criterion" in the DCT claim construction briefing and decline to apply either of them for purposes of this decision. We disagree with Patent Owner that the '571 patent specification provides an exhaustive list of categories of features that are "monitoring criterion." As Petitioner argues, the

specification uses the permissive word "may." Specifically, the specification states that the "monitoring criteria *may* be based on one or more . . ." Ex. 1001, 4:3–8 (emphasis added). Thus, under the broadest reasonable interpretation, the '571 patent specification identifies representative "monitoring criteria" such as "light contrast on the image, light brightness of the image, positioning of the image, dimensions, tolerances, character spacing, skewing, warping, corner detection, and MICR (magnetic ink character recognition) line detection," "proper lighting and/or framing of the check 108," "positioning of the check 108," and "[e]dge detection and/or corner detection." Ex. 1001, 4:3–8, 3:58–60, 7:29–30, 7:48–52, 8:40–41 ("whether the MICR line can be detected and/or read"). We, however, disagree that Petitioner's proposed "one or more standards" is informative to the construction of the claim term because, as Patent Owner argues (Ex. 2052, 16), "'one or more standards' is simply a synonym for 'one or more criteria'; it does not actually explain what 'monitoring criteria' means in the context of the patented inventions."

Moreover, we decline to adopt Petitioner's proposed "perceptible to the human eye" as part of the construction of a "monitoring criteria." As discussed above with respect to the claim term "passes the monitoring criteria," the type of check image features that the specification contemplates monitoring are those, when within acceptable thresholds, that will ensure that check data can be electronically obtained from the check image without error. The specification provides check rotation as an example of a check image feature that can affect whether check data can be electronically obtained from the check. Specifically, the specification states that "if the check is rotated 45 degrees clockwise when captured, the check processing

module **454** or a software object operated on the server **322** [at the financial institution] may be unable to optically detect information on the check." Ex. 1001, 13:7–10, 13:38–44. Moreover, the specification contrasts a human's perception of a check image feature with how a machine or computer can programmatically perceive the feature. For example, the specification explains that "[w]hile 'flat' is a fairly well known term to users, each user's appreciation of flat with respect to the camera lens of the camera **207** associated with the mobile device 106 may result in a problem with needing to align the check image programmatically or risk rejecting a large number of check images." *Id*. at 14:11–16. In addition, the specification expressly states that the monitoring is performed by a computing device, and not a human—"[t]he monitoring may be performed by the camera, the mobile device 106, and/or a financial institution that is in communication with the mobile device 106." *Id*. at 1:40–43, 4:12–14; *see id*. at 15:37–40 ("[t]he monitoring may be performed by the camera, the mobile device, and/or a computing device associated with the depository, for example"), 15:40–43 ("[t]he monitoring may be performed pursuant to instruction received at the camera or mobile device from the deposit system operated by a depository, the server **322**, or the server apparatus **570**, for example"). In short, the specification contemplates electronically monitoring a criteria that can affect whether check data can be electronically obtained from the check. Furthermore, as discussed above, we determine that the preamble of claim 1 is limiting and it requires the "processor" to perform the monitoring of the image and the claim itself requires "using an image monitoring and capture module of the mobile device." In view of the

specification and claim language, we decline to adopt Petitioner's proposed "perceptible to a human eye."

Thus, for purposes of this decision, we determine that "a monitoring criterion" can include "one or more" features of an image of a check that can affect whether check data can be electronically obtained from the check, such as "light contrast on the image, light brightness of the image, positioning of the image, dimensions, tolerances, character spacing, skewing, warping, corner detection, and MICR (magnetic ink character recognition) line detection," "proper lighting and/or framing of the check," "positioning of the check," and/or "[e]dge detection and/or corner detection."

B.   *Covered Business Method Patent*

Section 18 of the AIA provides for the creation of a transitional program for reviewing covered business method patents. A "covered business method patent" is a patent that "claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions." AIA § 18(d)(1); *see* 37 C.F.R. § 42.301(a). A patent need have only one claim directed to a covered business method to be eligible for review. *See* Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention; Final Rule, 77 Fed. Reg. 48,734, 48,736 (Aug. 14, 2012) ("CBM Rules") (Comment 8). Petitioner has the burden to "demonstrate that the patent for which review is sought is a covered business method patent" by a "preponderance of the evidence." *Trial Practice Guide*, 37 C.F.R. § 42.304, 37 C.F.R. § 42.1(d).

Petitioner relies on claim 1 to argue that the '571 patent is eligible for a covered business method patent review.[7] Pet. 13 ("[a]t least claim 1 of the '571 patent is covered business method claim.").

1. Technological Invention

The AIA excludes from covered business method patent review patents for a "technological invention." AIA § 18(d)(1). To determine whether a patent is for a "technological invention," we consider "whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution." 37 C.F.R. § 42.301(b).

Petitioner argues that the '571 patent is not directed to a technical problem. Petitioner contends that the problem addressed by the '571 patent is "that using a phone to create an image of a check 'requires the efficient and accurate detection and extraction of information pertaining to a check in the digital image.'" Pet. 14 (citing Ex. 1001, 1:26–33). Petitioner concludes that "the problem addressed by claim 1 of the '571 patent is how to take a good picture of a check using computer instructions 'for depositing a check' (thus complying with legal requirements—namely the *Check 21 Act*)." *Id.* at 15. Petitioner asserts that "[t]he problem of taking a well-composed picture is not a technical one." *Id.*

Petitioner further argues that the '571 patent claims do not solve a technical problem with a technical solution. *Id.* at 15. Petitioner contends that "[c]laim 1 helps users operate their mobile phones to take good pictures of checks by 'monitor[ing] an image of the check . . . with respect to a

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[7] Patent Owner has statutorily disclaimed claims 14–20. Prelim. Resp. 27; Ex. 2042.

monitoring criterion' and 'captur[ing] the image of the check . . . when the image of the check passes the monitoring criterion.'" *Id*. (citing Ex. 1001, 21:9–14, 1:38–46). Petitioner concludes "[t]he solution [provided by the '571 patent] is to help users take pictures of checks that meet criteria for processing the check (i.e., the monitoring criterion)." *Id*. Petitioner asserts "[t]hat is not a technical solution to a technical problem." *Id*.

Lastly, Petitioner argues that the '571 patent discloses generic and conventional components and "does not purport to advance any computer technology." *Id*. at 15–17. Specifically, Petitioner asserts, "[t]hat the claims recite 'a processor,' 'a camera,' 'a mobile device,' an 'image monitoring and capture modules' and a 'communication pathway' is of no consequence; these components are described generically in the patent." *Id*.

Patent Owner responds that "[u]sing a mobile device to capture a check that will subsequently be deposited is a technological problem requiring a technological solution" and "[o]ne reason is because human perception cannot distinguish when an image is of sufficient quality for 'automated recognition' or 'Reco' systems." Prelim. Resp. 11 (citing Ex. 2024, 4). Patent Owner points out that "[t]he combination of non-standardized environments, devices and users introduce a host of technological challenges even beyond those present in traditional [Remote Deposit Capture]."[8] *Id*. at 13. Patent Owner further avers that "Petitioner offers no evidence supporting its assertion that (a) accurately capturing images of checks for deposit is not a technical problem and (b) using a computer processor and camera to actively monitor the quality of an image

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[8] According to Patent Owner, "[d]eposit of checks using electronic images is known in the industry as remote deposit capture or RDC." Prelim. Resp. 7.

and automatically capture the image at the optimal time is not a technical solution." Prelim. Resp. 51–52.

Patent Owner also argues that "[t]he '571 Patent claims employ a technical solution to solve the technical problems facing mobile check deposit." *Id*. at 58. Specifically, Patent Owner argues that the '571 patent "creates a system that allows the processor to monitor a set of technical criteria that are relevant to check image acceptance and controlling capture of the image when the selected criteria are satisfied." *Id*. For example, alleges Patent Owner, "[c]laim 1 recites that the software causes the processor to:" "'monitor an image of the check in a field of view of a camera of a mobile device with respect to a monitoring criterion using an image monitoring and capture module of the mobile device;'" and "'capture the image of the check with the camera *when the image of the check passes the monitoring criterion*.'" *Id*. at 58–59. For the reasons discussed below, Petitioner has not sufficiently established that the "technological invention" exception to a covered business method patent review does not apply to the '571 patent.

Petitioner misidentifies the disclosed problem by oversimplifying it. Petitioner asserts that the '571 patent address the problem of "tak[ing] a good picture of a check using computer instructions 'for depositing a check.'" Pet. 15. However, the '571 patent addresses the problem of taking a sufficiently good image of a check such that a machine can read the data of the original check. The '571 patent discloses that depositing a check electronically "requires the efficient and accurate detection and extraction of the information pertaining to a check in the digital image," and that "[c]apturing a digital image at a mobile device that allows for subsequent

detection and extraction of the information from a digital image is difficult."
Ex. 1001, 1:26–35. As Patent Owner asserts (Prelim. Resp. 16), "in order
for a check image to be [electronically] depositable, the image must conform
to the criteria required by machines." Petitioner's witness, Dr. Alexander,
testified in the DCT litigation that there are "***technical challenges*** associated
with capturing sufficient quality images such that they could recognized by a
machine." Ex. 2012, 9:23–10:3 (emphasis added). Dr. Alexander testified
that "the environment in which the image is taken can change dramatically
based on the user," "for example, the user can try to take the image in a dark
room, the user can try to take the image in a light room, the user can try to
take the image on a white table, . . . [or] [t]he phone itself may have different
resolutions . . . ." *Id*. at 30:11–25. In his declaration, Dr. Alexander
explains that "[t]o satisfy [the] Check 21 [Act], the image had to accurately
represent all information on the check" and that "if the image was skewed, it
would have been impossible to extract information from the check." Ex.
1002 ¶ 134 (citing Ex. 1036, 6; Ex. 1035, H9292; Ex. 1004, 28:50–52); *id*.
¶ 138 (Dr. Alexander states that a skilled artisan would have recognized that
"inadequate imaging of checks (such as described above with respect to
image quality and/or skewing) would result in errors in electronic checking
transactions"). Thus, using an image of a check to deposit the check
presents technical difficulties.

      In addition, electronic deposit of a check, as required by claim 1, for
example, requires compliance of certain technical specifications, further
demonstrating that the '571 patent is directed to a technical problem.
Petitioner admits that "[a]currately imaging checks is a key legal
requirement of the *Check 21 Act*, since images of checks are used to create

substitute checks, which in turn must include replicas of an original check."
Pet. 15 (citing Ex. 1042, 33). The "standard" cited by Petitioner "provides
the financial industry with a specification for an Image Replacement
Document (IRD) that provides for a machine readable substitute document
created from the image that is made the front and back of the original
check." Ex. 1042, 5. Furthermore, "[t]his standard establishes the
construction, layout, data elements, data content, and printing specifications
for [an IRD]" "that includes a machine readable MICR line." *Id*. at 9. "An
IRD conforming to these specifications may be used as a Substitute Check in
conformance with the [Check 21 Act]." *Id*. Thus, these are technical
specifications for a substitute check ("IRD") that is created from the image
of an original check. That an image of a check must satisfy the Check 21
Act's technical specification for "depositing a check" electronically (i.e., via
"computer-readable instructions"), prior to capturing the image of the check
with the camera, as recited in claim 1, further contradicts Petitioner's
assertion that the '571 patent is not directed to a technical problem.
Accordingly, we determine the disclosed method addresses a "technical
problem."

We further determine that the disclosed method's solution to address
the technical problem is technical. Petitioner argues that "[t]he solution
[provided by the '571 patent] is to help users take pictures of checks that
meet criteria for processing the check (i.e., the monitoring criterion)." Pet.
15. Petitioner mischaracterizes the solution provided by the '571 patent by
oversimplifying it. Patent Owner's characterization of the '571 patent's
solution to the technical problem, however, is consistent with the claim
language and the disclosure in the specification. Patent Owner contends that

the '571 patent is directed to "an autonomous system [that puts] the image evaluation process in the hands of the mobile device processor, not in the hands of the user," wherein the processor monitors the image with respect to monitoring criteria, such as "skewing" or "warping," and determines whether those criteria are satisfied or not. Prelim. Resp. 17. Once the monitoring criteria are satisfied, asserts Patent Owner, the processor will allow the camera to capture the image of the check in view—removing user judgment from the process. *Id*. at 17–18.

Patent Owner's characterization of the '571 patent as providing a technical solution is consistent with the scope of claim 1. As we discussed above with respect to the claim construction of claim 1, the preamble requires a "processor" to perform the claimed limitations, including "monitor[ing] an image of the check . . . with respect to a monitoring criterion" and "captur[ing] the image . . . when the image of the check passes the monitoring criterion," for the purpose of "depositing a check," the image of which check is monitored with respect to a monitoring criterion and captured when the image passes the monitoring criterion.

The parties dispute the meaning of "depositing a check." In its DCT claim construction briefing, Patent Owner argues that "depositing a check" does not need to be construed, but alternatively means "provide a check image to a depository for presentment and clearing in order for money to be credited to an account." Ex. 2052, 8; Ex. 2055, 9–10. Petitioner also argues that "depositing a check" does not need to be construed, but alternatively means "provide a check image and/or check information to a depository (such as a bank) for money to be credited to an account." Ex. 1049, 8. Petitioner disagrees that "deposit" includes "check presentment and check

clearing." *Id.* at 9. For the purposes of this decision, all that matters is that the parties agree that the check image must be provided to a depository, such as a financial institution.

As noted above, claim 1 further requires that the processor "monitor an image of the check . . . with respect a monitoring criteria." As discussed above with respect to the claim construction of claim 1, "a monitoring criterion" can include "one or more" features of an image of a check that can affect whether check data can be electronically obtained from the check, such as "light contrast on the image, light brightness of the image, positioning of the image, dimensions, tolerances, character spacing, skewing, warping, corner detection, and MICR (magnetic ink character recognition) line detection," "proper lighting and/or framing of the check," "positioning of the check," and/or "[e]dge detection and/or corner detection." Furthermore, the processor determines "when the image of the check passes the monitoring criteria." As discussed above with respect to the claim construction of claim 1, "passes the monitoring criterion" means determining that the quality of the monitored image feature is within acceptable thresholds so that check data can be electronically obtained from the image without error during electronic processing and clearing. In sum, the solution provided by the '571 patent is a processor, as opposed to a human, monitoring one or more technical criterion of the image of the check to determine whether the quality of the image is within acceptable thresholds, prior to the image being captured, so that check data can be electronically obtained from the image without error during electronic processing and clearing. In other words, the '571 patent uses a machine to ensure that the quality of the check image is sufficiently high, prior to

capturing the image, so that subsequently a machine will be able to read data from the check image. The 571 patent thus improves prior computer systems and methods by solving the problem associated with those automated processes. *See* Ex. 1001, 1:31−35 ("such a technique requires the efficient and accurate detection and extraction of the information pertaining to a check in the digital image. Capturing a digital image at a mobile device that allows for subsequent detection and extraction of the information from the digital image is difficult.").

Therefore, even accepting Petitioner's claim construction in District Court that "deposit[ing]" does not require check presentment and check clearing (Ex.1029, 9), claim 1 requires "depositing a check" by providing an image of the check to a depository, such as a financial institution. Furthermore, the processor must monitor one or more technical criteria to determine that the quality of the monitored image feature is within acceptable thresholds prior to capturing the image, so that check data can be electronically obtained from the image without error during electronic processing and clearing. The '571 patent specification confirms that the processor determining that the check image passes monitoring criteria is the solution. Specifically, the '571 patent specification states that "[b]y ensuring that the image of the check passes monitoring criteria *during pre-image capturing monitoring*, the number of non-conforrming images of checks is reduced during presentment of the images to a financial institution for processing and clearing." Ex. 1001, 4:18–22 (emphasis added).

Therefore, the '571 patent's solution to the addressed problem is rooted in technology, and thus, is a "technical solution."

Lastly, Petitioner has not sufficiently persuaded us that the '571 patent recites a technological solution that is *not* novel and nonobvious for purposes of satisfying the "technological invention" exception in § 42.301(b). The entirety of Petitioner's argument that claim 1 does not recite a novel and unobvious technical feature is the following:

> Claim 1 of the '571 patent does not recite a novel and unobvious technical feature either. It instead recites known combinations of prior art structures to achieve predictable results.   [Recitation of claim 1]   Any arguably technical component in this claim—*e.g.* mobile device with a camera and processor—are admittedly common. *See* § II.D (page 5).[9] And, using these features to take photos of checks and send them to a bank was old hat by August 2009, as exemplified by the teachings of Ramachandran. *See* § VII.B.1 (page 41). Additionally, monitoring an image of a document to be photographed by a camera on a mobile device was similarly old and obvious based on Yoon. *See* § VII.B.1 (page 41).[10]

Pet. 17–18. Petitioner does not demonstrate that claim 1 does not recite a novel and unobvious technical feature for the following reasons.

As an initial matter, Petitioner's contentions are conclusory. For example, as Patent Owner argues (Prelim. Resp. 34, 45), Petitioner does not provide sufficient analysis as to why there would have been a reason or motivation to combine Ramachandran and Yoon to achieve the claimed invention, much less with any reasonable expectation of success. Petitioner

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[9] Page 5 of the Petition discusses alleged mobile technology advances, such as 3G wireless technology, and includes the beginning of Petitioner's discussion of the Check 21 Act. Pet. 5.

[10] Page 41 of the Petition summarily identifies Petitioner's contentions under Ground 2 and provides the beginning of a summary of the asserted prior art reference Ramachandran. Pet. 41.

does provide an analysis supporting its assertion that Ramachandran and Yoon render the challenged claims obvious. Pet. 41–79. However, Petitioner's analysis with respect to its asserted obviousness ground cannot take the place of a proper covered business method patent eligibility analysis. *See Emnos USA Corp. v. Dunnhumby Ltd.*, Case CBM2015-00162, slip op. at 10 (PTAB Dec. 30, 2015) (Paper 7) (denying institution based on technological invention exclusion); *see also Motorola Mobility, LLC v. Intellectual Ventures I, LLC*, Case CBM2014-00084, slip op. at 4–5 (PTAB Sept. 23, 2014) (Paper 21) (denying request for rehearing of decision denying institution because "[t]he only portion of the Petition addressing whether a claim as a whole recites a technological feature was addressed in our Decision. The portion of the Petition that Petitioner contends the Board overlooked or misapprehended addresses only whether the challenged claims are novel and unobvious over the prior art, and does not address whether the claimed subject matter as a whole recites a technological feature.") (internal citations omitted); *see also Bloomberg L.P. v. Quest Licensing Corp.*, Case CBM2014-00205, slip op. at 7, 9 (PTAB June 17, 2015) (Paper 18) (denying request for rehearing of decision denying institution because petitioner did not carry burden on technological invention inquiry, and finding unpersuasive petitioner's arguments that focused on portions of the petition other than the section addressing the technological invention inquiry).

Moreover, Petitioner's argument that claim 1 does not recite a novel and unobvious technical feature refers to the individual elements of the claims without considering the claims as a whole, as required by § 42.301(b). *See* Pet. 17–18. Petitioner refers to the following elements of

claim 1—mobile device with a camera and processor—to argue that claim 1 does not recite a novel and unobvious technical feature. *See HTC Corp. v. Ancora Techs. Inc.*, Case CBM2017-00054, slip op. at 9–11 (PTAB Dec. 1, 2017) (Paper 7) (applying the exclusion for a "technological invention" to a patent claim even if the individual hardware components of the system were known technology). Petitioner, however, does not address claim 1's requirement that a processor, and not a human, monitor one or more technical criteria of the check image to determine that the quality of the image is within acceptable thresholds, prior to capturing the image, so that check data can be electronically obtained from the image without error during electronic processing and clearing. Indeed, Patent Owner notes that "[t]he Petition fails to point to any mobile device that has ever existed that combines these features for the capture of checks." Prelim. Resp. 33. Petitioner's argument is, thus, unavailing.

We are persuaded, therefore, that the exclusion for a "technological invention" applies in this case. Accordingly, we conclude that, based on the evidence of record, the '571 patent is not a covered business method patent eligible for review.

C. CONCLUSION

In view of the foregoing, we conclude that the '571 patent is not a covered business method patent under AIA § 18(d)(1), and thus, is not eligible for review using the transitional covered business method patent review program.

III. ORDER

For the reasons given, it is,

ORDERED that a covered business method patent review is *denied*.

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Patent 8,977,571 B1

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