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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DEBORAH BARTA, DAVID C. BROWN, ADAM K. HOSP,
MATTHEW WICKMAN, and JOSHUA G. MONROE

Appeal 2018-008758
Application 13/865,838
Technology Center 3600

Before JOHN A. EVANS, JOHN P. PINKERTON, and
MICHAEL M. BARRY, *Administrative Patent Judges*.

EVANS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ seek our review under 35 U.S.C. § 134(a) from the Examiner's final rejection of Claims 1–25, which constitute all pending claims. App. Br. 8–17. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.²

¹ Appellants state the real party in interest is MasterCard International Incorporated. App. Br. 1.

² Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed February 26, 2018, "App. Br."), the Examiner's Answer (mailed April 11, 2018, "Ans."), the Final Action (mailed July 24, 2017, "Final Act."), and the Specification (filed April 18, 2013, "Spec.") for their respective details.

STATEMENT OF THE CASE

The claims relate to “managing transactions for a merchant and, more particularly, to network-based methods and systems for registering and underwriting a merchant with an acquiring bank in real-time for processing payment card transactions, and managing the transactions for the merchant including providing transaction management services to the merchant.”

Spec. ¶ 2.

Invention

Claims 1, 9, and 17 are independent. An understanding of the invention may be derived from a reading of Claim 1, which is reproduced below.

1. A computer-based method for managing payment transactions using a real-time merchant account activation process for a merchant using a payment processor computing device coupled to a memory device, wherein the real-time merchant account activation process includes a primary approval process and a secondary approval process, and wherein each transaction is initiated by a consumer using a payment card, said method comprising:

receiving, at the payment processor computing device, a registration request from a merchant computing device associated with a candidate merchant, the registration request initiated using a merchant manager module of the payment processor computing device, the registration request requesting an activation of a merchant account and including registration data associated with the candidate merchant;

causing the merchant manager module to execute the primary approval process in real time using at least some of the registration data, wherein the primary approval process includes using the merchant manager module to compare the candidate merchant to a high risk merchant list, and verifying the candidate merchant as a result of the comparison;

causing the merchant manager module to transmit an account request message to an acquiring bank computer device associated with an acquiring bank upon approval by the primary approval process, the account request message requesting an opening of the merchant account for the verified candidate merchant with the acquiring bank, wherein the account request message includes the registration data;

causing the acquiring bank computer device, in response to receiving the account request message, to perform the secondary approval process in real time, wherein the secondary approval process includes storing the verified candidate merchant as a registered merchant, and generating merchant account data for the verified candidate merchant;

receiving, via the merchant manager module, in real-time, the merchant account data, the merchant account data representing an agreement by the acquiring bank to underwrite payment transactions submitted by the candidate merchant to the merchant manager module, the verified candidate merchant becoming a registered merchant upon secondary approval;

causing the acquiring bank computer device to create the merchant account for the registered merchant;

receiving a credential request message from the merchant manager module requesting the provisioning of registered merchant credentials for the registered merchant from the payment processor computing device after the merchant account data is received, wherein the registered merchant credentials include security keys for the merchant to access and communicate with the merchant manager module during a first payment transaction;

generating, in response to the credential request message, a gateway account and associated registered merchant credentials enabling the registered merchant to immediately perform the first transaction and receive an amount of funds associated with the first transaction, wherein the gateway account is different from the merchant account; and

after the secondary approval process is completed, processing, at the merchant manager module using the

registered merchant credentials, the first payment transaction submitted by the registered merchant using transaction data associated with the first payment transaction and the merchant account data.

Rejection

Claims 1–25 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Final Act. 3–12.

ANALYSIS

We have reviewed the rejection of Claims 1–25 in light of Appellants’ arguments. We have considered in this decision only those arguments Appellants actually raised in the Briefs. Any other arguments which Appellants could have made but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We adopt as our own the determinations and reasons set forth in the rejection from which this appeal is taken and in the Examiner’s Answer, to the extent consistent with our analysis below. We provide the following explanation to highlight and address specific arguments and determinations primarily for emphasis.

Based upon our *de novo* review of the record in light of recent Director Policy Guidance³ with respect to patent-eligible subject matter rejections under 35 U.S.C. § 101, we sustain the rejection of Claims 1–25. “Whether a claim is drawn to patent-eligible subject matter is an issue of law that we review *de novo*.” *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1331 (Fed. Cir. 2010).

³ USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84(4) Fed. Reg. 50–57 (Jan. 7, 2019) (“Revised Guidance” or “Rev. Guid.”).

Appellants present arguments for the pending claims as a group. *See* App. Br. 8–15. Appellants also present additional arguments for Claim 25. *Id.* at 16. We decide the appeal of the § 101 rejection with reference to representative Claim 1 and also address the additional arguments for Claim 25.⁴ We refer to the rejected claims collectively herein as “the claims.” *See* 37 C.F.R. § 41.37(c)(1)(iv); *see also In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

We consider Appellants’ arguments *seriatim*, as they are presented in the Appeal Brief, pages 8–17.

CLAIMS 1–25: INELIGIBLE SUBJECT MATTER.

PRINCIPLES OF LAW

A. 35 U.S.C. § 101

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101.⁵ The Supreme Court, however, has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas’ are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

⁴ Our § 101 analysis for Claim 1 applies equally to Claims 2–24. For Claim 25, our § 101 analysis for Claim 1 applies along with our § 101 analysis addressing Appellants’ additional arguments for Claim 25.

⁵ This threshold analysis of whether a claim is directed to one of the four statutory categories of invention, i.e., a process, machine, manufacture, or composition of matter, is referred to as “*Step 1*” in the patent-eligibility inquiry under 35 U.S.C. § 101.

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014) (citing *Mayo*, 566 U.S. at 75–77). In accordance with that framework, we first determine what concept the claim is “directed to.” *See id.* at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent-ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *see also Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent-eligible include physical and chemical processes, such as “molding rubber products” (*Diehr*, 450 U.S. at 191); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber

products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson*, 409 U.S. at 63; *Flook*, 437 U.S. at 594); *see also id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

Abstract ideas may include, but are not limited to, fundamental economic practices, methods of organizing human activities, and mathematical formulas or relationships. *Alice*, 573 U.S. at 217–21. Under this guidance we must, therefore, ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful. *Id.* at 217 (“[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (internal quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77 (alteration in original)). “[M]erely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible

invention.” *Id.* at 212.

B. United States Patent and Trademark Office Revised Guidance

The USPTO recently published Revised Guidance in the Federal Register concerning the application of § 101. Rev. Guid., 84 Fed. Reg. 50–57.

Under the Revised Guidance, we first look to whether the claim recites any judicial exceptions, including certain groupings of abstract ideas (“*Step 2A(i)*”). Informed by our judicial precedent, the Revised Guidance extracts and synthesizes key concepts identified by the courts as abstract ideas to explain that the abstract idea exception includes the following groupings of subject matter, when recited as such in a claim limitation:

(a) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;

(b) Certain methods of organizing human activity — fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions); and

(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

If the claim does not recite a judicial exception (a law of nature, natural phenomenon, or subject matter within the enumerated groupings of abstract ideas above), then the Revised Guidance provides that the claim is patent-eligible at *Step 2A(i)*. This determination concludes the eligibility analysis, except in rare situations identified in the Revised Guidance.

If a claim recites a judicial exception in *Step 2A(i)*, we determine whether the recited judicial exception is integrated into a practical

application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application (“*Step 2A(ii)*”).

The seven identified “practical application” sections of the MPEP,⁶ cited in the Revised Guidance under *Step 2A(ii)*, are:

- (1) MPEP § 2106.05(a) Improvements to the Functioning of a Computer or To Any Other Technology or Technical Field
- (2) MPEP § 2106.05(b) Particular Machine
- (3) MPEP § 2106.05(c) Particular Transformation
- (4) MPEP § 2106.05(e) Other Meaningful Limitations
- (5) MPEP § 2106.05(f) Mere Instructions To Apply An Exception
- (6) MPEP § 2106.05(g) Insignificant Extra-Solution Activity
- (7) MPEP § 2106.05(h) Field of Use and Technological Environment

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application as determined under one or more of the MPEP sections cited above, do we then determine whether the additional elements of the claim, considered both individually and in combination, provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself) (“*Step 2B*”). Rev. Guid., 84 Fed. Reg. at 56.

Under the Revised Guidance, we must consider in *Step 2B* whether an additional element or combination of elements: (1) “Adds a specific

⁶ See MPEP §§ 2106.05(a)–(c), (e)–(h). Citations to the MPEP herein refer to revision [R-08.2017].

limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present;” or (2) “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.” Rev. Guid., 84 Fed. Reg. at 56.

In the *Step 2B* analysis, an additional element (or combination of elements) is not well-understood, routine, or conventional unless the Examiner finds an evidentiary basis, and expressly supports a rejection in writing with, one or more of the following:

1. A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s). . . .
2. A citation to one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-understood, routine, conventional nature of the additional element(s).
3. A citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s). . . .
4. A statement that the examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s).

Robert W. Bahr, *Changes in Examination Procedures Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (Berkheimer v. HP, Inc.)*, USPTO 1–5 (2018) (“*Berkheimer Memo*”); *see also* MPEP § 2106.05(d).

If the Examiner or the Board determines under *Step 2B* that the element (or combination of elements) amounts to significantly more than the

exception itself, the claim is eligible, thereby concluding the eligibility analysis.

However, if a determination is made that the element and combination of elements do not amount to significantly more than the exception itself, the claim is ineligible under *Step 2B*, and the claim should be rejected for lack of subject matter eligibility.

ANALYSIS

Step 1

Claim 1 is a method (process) claim by reciting one of the enumerated categories of eligible subject matter in 35 U.S.C. § 101. Therefore, the issue before us is whether it is directed to a judicial exception without significantly more.

Step 2A(i): Does the Claim Recite a Judicial Exception?

The Examiner determines the claims are directed to an abstract idea. Final Act. 4–12; Ans. 2–10. In particular, the Examiner determines that Claim 1 “recites a computer-based method for managing payment transactions using a real-time merchant account activation process . . . for a merchant comprising a series of steps of enrolling and approving the merchant to be a registered merchant using a primary and a secondary approval process.” Final Act. 6. The Examiner explains that this concept of

[e]nrolling and registering market participants in order to manage payment transactions has been widespread used in the finance industry and is “a fundamental economic practice” since it relates to the concepts of the economy and commerce, such as agreements between people or performance of financial transactions in the form of contracts, legal obligations, and business relations.

Id. The Examiner further determines that

[t]he claim describes a concept of enrolling and approving a merchant to be a registered merchant using the real-time activation process so that the merchant may process the first payment transaction is analogous to “collecting information, analyzing it, and displaying certain results of the collection and analysis” . . . which the court has found to be patent-ineligible. *Id.* at 7 (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)). The Examiner additionally determines that using the primary approval process for “comparing the candidate merchant to a high risk merchant list” is similar to the patent-ineligible concept of “comparing data to determine a risk level,” and using the secondary approval process for “storing . . . and generating” is similar to the patent-ineligible concept of “data recognition and storage.” *Id.* at 6–7 (citing *PerkinElmer, Inc. v. Intema Ltd.*, 496 F. App’x 65, 70 (Fed. Cir. 2012); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014)). The Examiner explains that “the combination of the primary and secondary approval processes does not make the idea non-abstract because it simply narrows the abstract idea to a particular type of relationship.” *Id.* at 7. With respect to the claim being performed on a “computing device,” the Examiner determines this merely limits the recited abstract idea to a particular technological environment. *Id.* at 6.

Appellants contend “the claims are patent eligible . . . because they are directed to an innovative system architecture that introduces a novel, intervening merchant manager module into the conventional system architecture in order to improve the speed and functionality of the system itself.” App. Br. 10. According to Appellants, like the claims in *Enfish*, the instant claims recite a functional and architectural improvement in computer-related technology in view of certain specialized claim elements

(e.g., merchant manager module and processing gateway) that have distinctive functionalities and contribute to the interactive order in which the approval process is executed. *See id.* at 11 (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338–39 (Fed. Cir. 2016)). Appellants explain that the conventional process for establishing merchant and gateway accounts is complicated and time consuming and prevents smaller merchants from trying to register for services, whereas Appellants’ claims address these problems by centralizing the establishment of a merchant account and payment gateway at a merchant manager module. *Id.* at 12, *see also id.* at 14 (“The present claims centralize the merchant account and payment gateway establishment through a single module of the interchange network, whereas the conventional systems require a distributed amalgam of merchant accounts established individually between each merchant and acquirer.”). Thus, Appellants argue that the merchant manager module reflects a “specific asserted improvement” in computer capabilities because it is a new and unique functional element that intervenes between (1) the merchant and the acquirer and (2) the merchant and the payment processor and establishes the merchant account more efficiently. *Id.* at 12–13.

The preamble of Claim 1 recites:

A computer-based method for managing payment transactions using a real-time merchant account activation process for a merchant using a payment processor computing device coupled to a memory device, wherein the real-time merchant account activation process includes a primary approval process and a secondary approval process, and wherein each transaction is initiated by a consumer using a payment card, said method comprising.

App. Br. 18 (Claims App’x). The table below compares the remaining limitations of Claim 1 to the groupings of abstract ideas set forth in the Revised Guidance.

Claim 1	Revised Guidance
<p>[a]⁷ receiving, at the payment processor computing device, a registration request from a merchant computing device associated with a candidate merchant, the registration request initiated using a merchant manager module of the payment processor computing device, the registration request requesting an activation of a merchant account and including registration data associated with the candidate merchant;</p>	<p>Adds insignificant extra-solution activity to the judicial exception. Rev. Guid., 84 Fed. Reg. at 55, 55 n.31 (“mere data gathering”);</p>
<p>[b] causing the merchant manager module to execute the primary approval process in real time using at least some of the registration data, wherein the primary approval process includes using the merchant manager module to compare the candidate merchant to a high risk merchant list, and verifying the candidate merchant as a result of the comparison;</p>	<p>Mental processes, e.g., concepts performed in the human mind including an observation, evaluation, judgment, opinion. Rev. Guid., 84 Fed. Reg. at 52; <i>see also, e.g., PerkinElmer</i>, 496 F. App’x at 70 (concluding that claims were directed to the abstract idea of “comparing data to determine a risk level”).</p>

⁷ Step designators, e.g., “[a],” added to facilitate discussion.

<p>[c] causing the merchant manager module to transmit an account request message to an acquiring bank computer device associated with an acquiring bank upon approval by the primary approval process, the account request message requesting an opening of the merchant account for the verified candidate merchant with the acquiring bank, wherein the account request message includes the registration data;</p>	<p>Adds insignificant extra-solution activity to the judicial exception. Rev. Guid., 84 Fed. Reg. at 55, 55 n.31.</p>
<p>[d] causing the acquiring bank computer device, in response to receiving the account request message, to perform the secondary approval process in real time, wherein the secondary approval process includes storing the verified candidate merchant as a registered merchant, and generating merchant account data for the verified candidate merchant;</p>	<p>Mental processes, e.g., concepts performed in the human mind including an observation, evaluation, judgment, opinion. Rev. Guid., 84 Fed. Reg. at 52, 52 n.14; <i>see, e.g., Content Extraction</i>, 776 F.3d at 1347–48 (concluding that claims were directed to the abstract idea of “data recognition and storage”).</p> <p>“[S]toring” and “generating” add insignificant extra-solution activity to the judicial exception. <i>See</i> Rev. Guid., 84 Fed. Reg. at 55, 55 n.31.</p>
<p>[e] receiving, via the merchant manager module, in real-time, the merchant account data, the merchant account data representing an agreement by the acquiring bank to underwrite payment transactions</p>	<p>Adds insignificant extra-solution activity to the judicial exception. Rev. Guid., 84 Fed. Reg. at 55, 55 n.31 (“mere data gathering”).</p>

<p>submitted by the candidate merchant to the merchant manager module, the verified candidate merchant becoming a registered merchant upon secondary approval;</p>	
<p>[f] causing the acquiring bank computer device to create the merchant account for the registered merchant;</p>	<p>Adds insignificant extra-solution activity to the judicial exception. Rev. Guid., 84 Fed. Reg. at 55, 55 n.31 (“postsolution activity”).</p>
<p>[g] receiving a credential request message from the merchant manager module requesting the provisioning of registered merchant credentials for the registered merchant from the payment processor computing device after the merchant account data is received, wherein the registered merchant credentials include security keys for the merchant to access and communicate with the merchant manager module during a first payment transaction;</p>	<p>Adds insignificant extra-solution activity to the judicial exception. Rev. Guid., 84 Fed. Reg. at 55, 55 n.31 (“mere data gathering”).</p>
<p>[h] generating, in response to the credential request message, a gateway account and associated registered merchant credentials enabling the registered merchant to immediately perform the first transaction and receive an amount of funds associated with the first transaction, wherein the gateway account is different from the</p>	<p>Additional limitation discussed further in <i>Step 2(a)(ii)</i>.</p>

merchant account; and	
[i] after the secondary approval process is completed, processing, at the merchant manager module using the registered merchant credentials, the first payment transaction submitted by the registered merchant using transaction data associated with the first payment transaction and the merchant account data.	Adds insignificant extra-solution activity to the judicial exception. Rev. Guid., 84 Fed. Reg. at 55, 55 n.31 (“postsolution activity”).

Thus, under *Step 2A(i)*, we find limitations [a]–[i] of Claim 1 recite steps that the Revised Guidance categorizes within the “mental processes” groupings of abstract ideas. These limitations can be performed in the human mind, but for the recitation of generic computing elements. As is the case here, the mere nominal recitation of generic computing element(s) does not take the claim limitations out of the mental processes grouping. *See* Rev. Guid., 84 Fed. Reg. at 52 n.14.

We note that limitations [a]–[i] of Claim 1 also may be described as reciting steps which the Revised Guidance categorizes within the “organizing human activities” grouping of abstract ideas. More specifically, the steps recite the concept of processing a merchant registration request, including receiving the registration request, verifying the merchant, forming an agreement between a merchant and an acquiring bank, and registering the merchant such that it can perform and manage transactions in a secure environment. This concept may be described as a method of organizing human activity in the form of a fundamental economic practice or a commercial or legal interaction (including agreements in the form of

contracts; legal obligations; sales activities or behaviors; business relations).
See Rev. Guid., 84 Fed. Reg. at 52, 52 n.13.

Step 2A(ii): Judicial Exception Integrated into a Practical Application?

Because the claim recites a patent-ineligible concept, we proceed to *Step 2A(ii)*. For the reasons that follow, we determine that Appellants’ claims do not integrate the judicial exception into a practical application. *See* MPEP §§ 2106.05(a)–(c) and (e)–(h). We address the relevant “practical application” MPEP sections below.

MPEP § 2106.05(a) “Improvements to the Functioning of a Computer or To Any Other Technology or Technical Field”

“In determining patent eligibility, [E]xaminers should consider whether the claim ‘purport(s) to improve the functioning of the computer itself’” or “any other technology or technical field.” MPEP § 2106.05(a).

Although Claim 1 additionally recites various computing elements, Appellants present no persuasive evidence that practicing the claim results in an improvement to the functioning of the computer or any other technology. In particular, Claim 1 is silent regarding specific limitations describing an improved machine, apparatus, computer, hardware processor, memory, non-transitory machine readable storage medium, network, database, Internet, etc.

As discussed above, Appellants argue Claim 1 is similar to the claims in *Enfish* and recites a functional and architectural improvement in computer-related technology via its centralized merchant manager module. App. Br. 10–13 (citing *Enfish*, 822 F.3d at 1338–39). We disagree.

Claim 1 is not like the patent-eligible claims in *Enfish*, nor does it recite an improvement in computer-related technology. The claims in *Enfish* were “specifically directed to a self-referential table for a computer

database,” which was “a specific improvement to the way computers operate,” rather than an abstract idea implemented on a computer. *Enfish*, 822 F.3d at 1336–37. By contrast, Appellants’ Claim 1 is not directed to an improvement in the way computers or networks operate, but instead to a multi-step merchant approval and registration process that uses a generic computing system as a tool. Nor do Appellants persuade us that their claimed or disclosed invention describes any technical advance, improvement or specialized computer components that require any unconventional or non-generic functionality.

Here, Appellants rely on the purported novelty of certain features and improvements in speed and efficiency as evidence that the claimed invention includes an inventive concept in a non-conventional and non-generic arrangement of pieces. But “‘novelty’ . . . is of no relevance in determining . . . patentable subject matter,”⁸ and “relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.”⁹

⁸ *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1315 (Fed. Cir. 2016) (emphasis omitted) (quoting *Diehr*, 450 U.S. at 188–89); *see also Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017) (“[e]ligibility and novelty are separate inquiries”); *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (“The search for a § 101 inventive concept is . . . distinct from demonstrating § 102 novelty.”).

⁹ *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015); *see also Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“[T]he fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.”); *Alice*, 573 U.S. at 224 (concluding that “the use of a computer to create electronic records, track multiple transactions, and issue simultaneous instructions”

Moreover, we demur from Appellants’ position that “well-understood, routine, and conventional” payment processing methods were limited to those “requir[ing] a merchant to obtain separate registration and approval from of the acquiring bank and the payment processor, respectively,” such that the processes “[could not] be performed in real-time, within the time span of a single payment transaction.” App. Br. 13 (emphasis omitted). Rather, we determine that, long before the effective filing date of Appellants’ invention, the public domain also included numerous payment processing systems that used centralized software for registering parties and processing payments between parties using a payment gateway over a network in real-time, with multiple steps of approval. *See, e.g.*, Kathleen Kaye Acosta, *Online Payment Process* 8–10, 13 (2008), <https://webuser.hs-furtwangen.de/~heindl/ebte-08-ss-Online-Payment-Process-Kathleen.pdf> (last visited Sept. 14, 2019) (describing various online payment services, such as PayPal and Verified by Visa, and displaying, at Figure 1, an anatomy of an online credit card transaction wherein the online payment service is centrally located between the merchant, acquiring bank, issuing bank, and cardholder); *see also* PayPal, *Sandbox User Guide* 1–28 (2004), http://www.auctioninc.com/pdf/sandbox_user_guide.pdf (last visited Sept. 14, 2019). Thus, we are not persuaded that the claimed architecture and functionality—including a gateway account and a merchant manager module interposed centrally within a payment network—amount to *an improvement* over existing computer-related technologies.

was not an inventive concept).

MPEP § 2106.05(b) Particular Machine.

At the outset, we note that the *Bilski* machine-or-transformation test is only applicable to the method (process) claims on appeal. This section of the MPEP guides: “When determining whether a claim recites significantly more than a judicial exception, examiners should consider whether the judicial exception is applied with, or by use of, a particular machine.”

MPEP § 2106.05(b); *see also Bilski*, 561 U.S. at 604 (“[T]he machine-or-transformation test is a useful and important clue, and investigative tool” for determining whether a claim is patent eligible under 35 U.S.C. § 101.).

MPEP § 2106.05(b) provides further guidance regarding what constitutes a particular machine:

[A]s described in **MPEP § 2106.05(f)**, additional elements that invoke computers or other machinery merely as a tool to perform an existing process will generally not amount to significantly more than a judicial exception. *See, e.g.*, [*Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015)] ([E]xplaining that in order for a machine to add significantly more, it must “play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly.”).

Although Claim 1 is a “computer-based method” including “a payment processor computing device,” “a memory device,” and “an acquiring bank computer device,” Appellants do not persuade us of specific limitations directed to a *particular* machine in the claim or Specification. Although the payment processor computing device includes a merchant manager module for performing a variety of functions, this does not render the device a *particular* machine because there lacks sufficient evidence that the merchant manager module is a non-generic module or performs

non-generic functions. Thus, because the claim is not directed to a particular machine and merely implements an abstract idea using generic computer components, it fails to satisfy the “tied to a particular machine” prong of the *Bilski* machine-or-transformation test. See *Alice*, 573 U.S. at 223; *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016).

MPEP § 2106.05(c) Particular Transformation.

This section of the MPEP guides: “Another consideration when determining whether a claim recites significantly more is whether the claim effects a transformation or reduction of a particular article to a different state or thing.” “Transformation and reduction of an article ‘to a different state or thing’ is the clue to patentability of a process claim that does not include particular machines.” *Bilski*, 561 U.S. at 658 (quoting *Benson*, 409 U.S. at 70).

Claim 1 recites a series of steps for processing a merchant registration request, including receiving the registration request, verifying the merchant through two approval processes, forming an agreement between a merchant and an acquiring bank, and registering the merchant such that it can perform and manage transactions in a secure environment. These data operations are not a transformation or reduction of an article into a different state or thing constituting patent-eligible subject matter. “The mere manipulation or reorganization of data . . . does not satisfy the transformation prong.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011). Applying this guidance here, we determine Claim 1 fails to satisfy the transformation prong of the *Bilski* machine-or-transformation test.

MPEP § 2106.05(e) Other Meaningful Limitations & MPEP § 2106.05(h) Field of Use and Technological Environment.

The MPEP guides:

For a claim that is directed to a judicial exception to be patent-eligible, it must include additional features to ensure that the claim describes a process or product that applies the exception in a meaningful way, such that it is more than a drafting effort designed to monopolize the exception. The claim should add meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment to transform the judicial exception into patent-eligible subject matter.

MPEP § 2106.05(e). Further, the Supreme Court has stated that, even if a claim does not wholly preempt an abstract idea, it still will not be limited meaningfully if it contains only insignificant or token pre- or post-solution activity—such as identifying a relevant audience, a category of use, field of use, or technological environment. *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1346 (Fed. Cir. 2013); *see also* MPEP § 2106.05(h).

We determine Claim 1 does not add meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment. Any additional limitation of Claim 1 is nothing more than a generic component performing a generic function, which does not amount to significantly more than an abstract idea. In particular, Claim 1’s “gateway account” and “merchant manager module” do not amount to “meaningful” limitations at least because, as discussed above, they do not reflect an improvement over payment processing systems using centralized software in existence long before Appellants filed their patent application. The merchant manager module, when executed by the payment processor computing device, merely performs the functions of sending, receiving,

comparing, verifying, and processing data in a normal and routine way, as any other generic and conventional module would do. Further, Appellants do not identify—nor do we find—anything in either Claim 1 or the Specification that explains with specificity how the claimed “secondary approval process” is performed by the acquiring bank computer device beyond generic operations on merchant account or registration data. *See, e.g.*, Claim 1 (“the secondary approval process includes storing the verified candidate merchant as a registered merchant, and generating merchant account data for the verified candidate merchant”); Spec. ¶ 7 (“the acquiring bank performs the secondary approval process using at least some of the registration data”), *see also id.* ¶¶ 8, 67, 85.

We also note that, although Claim 1 is directed to managing payment transactions between certain parties and is implemented in a computer-based system of elements, such recitations do no more than generally link the use of a judicial exception to a particular field of use or technological environment. *See Rev. Guid.*, 84 Fed. Reg. at 55.

MPEP § 2106.05(f) “Mere Instructions To Apply An Exception.”

“[T]ransformation into a patent-eligible application requires more than simply stat[ing] the [abstract idea] while adding the words ‘apply it.’” *Alice*, 573 U.S. at 221 (internal quotations and citation omitted); *see* MPEP § 2106.05(f). Because we are not convinced that Appellants’ centralized payment processing system solved an existing technological problem, and the claimed computing elements are no more than generic components being used in their ordinary capacity, we determine the additional elements of Claim 1 do not amount to more than a recitation of the words “apply it” and are no more than mere instructions to implement an abstract idea on a

computer. *See, e.g., TLI Communications LLC v. AV Automotive LLC*, 823 F.3d 607, 6165 (Fed. Cir. 2016) (concluding that claims reciting the abstract idea of “classifying and storing images in an organized manner” were directed to patent-ineligible subject matter because they did no more than “generically spell out what it means to ‘apply [the recited abstract idea] on a telephone network”” such that “the recited physical components behave[d] exactly as expected according to their ordinary use.”)

MPEP § 2106.05(g) Insignificant Extra-Solution Activity.

Claim 1’s “receiving,” “causing . . . to transmit,” “causing . . . to create,” “storing,” and “processing” of various information reflect the types of extra-solution activity (i.e., in addition to the judicial exception) the courts have determined insufficient to transform judicially excepted subject matter into a patent-eligible application. *See* MPEP § 2106.05(g); 84 Fed. Reg. at 55, 55 n.31; *see also Bancorp Servs, L.L.C. v. Sun Life Assur. Co. of Can.*, 771 F. Supp. 2d 1054, 1066 (E.D. Mo. 2011), *aff’d*, 687 F.3d at 1266 (explaining that “storing, retrieving, and providing data . . . are inconsequential data gathering and insignificant post solution activity).

In view of the foregoing, we determine Claim 1 does not recite additional elements that integrate the judicial exception into a practical application and, thus, is “directed to” a judicial exception, namely an abstract idea.

C. Well-understood, routine, conventional; specified at a high level of generality.

Because Claim 1 recites a judicial exception and does not integrate that exception into a practical application, we must then reach the issue of whether the claim adds a specific limitation (or combination of limitations)

beyond the judicial exception that is not “well-understood, routine, conventional” in the field. Rev. Guid., 84 Fed. Reg. at 56. It is indicative of the absence of an inventive concept where the claim simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *Id.*

The Examiner determines that the claims’ additional computing elements do not amount to significantly more than an abstract idea and are “well-understood, routine, and conventional.” Final Act. 9. To support this determination, the Examiner cites specific paragraphs from Appellants’ Specification. *See id.* (citing Spec. ¶¶ 11, 13, 14, 93, 94, 108–11, 116–30); Ans. 7–8 (citing Spec. ¶¶ 7–16), *see also id.* at 10.

We agree with the Examiner that the cited portions of the Specification—which describe Appellants’ invention in a manner that requires no more than a general-purpose computing system with generic computing elements performing generic computer functions—provide sufficient evidence to show that the additional elements and functions of Claim 1 are “well-understood, routine, and conventional.”

Appellants assert the claims are analogous to the claims in *Bascom*, which recited generic hardware devices, but nonetheless provided an inventive concept in the form of a non-conventional and non-generic structural arrangement of system elements. App. Br. 14 (citing *Bascom*, 827 F.3d 1341); Reply Br. 5. We disagree.

In *Bascom*, even though the court determined the claims recited the abstract concept of “filtering content,” it concluded that the claims recited an inventive concept in the ordered combination of system components, including a local client computer and a remote ISP server connected to the

client computer and Internet, providing for “the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user” (*Bascom*, 827 F.3d at 1350). *See id.* at 1348–50. By contrast, whether Claim 1’s limitations are considered individually or as an ordered combination, the claim does not provide an inventive concept. As discussed above, neither the recited computing elements, the gateway account, the centralized merchant manager module, nor the claim’s associated functions amounts to a patentable advance over conventional payment processing systems.

Appellants further assert that Claim 1 recites an inventive concept because “it is not conventionally known for a merchant to establish a merchant account with an acquirer bank through a module of the interchange network.” App. Br. 14. We disagree. First, there is no evidence that the module of the interchange network performs this function in an unconventional or non-generic manner. Second, the function itself is not an additional element to be considered under *Step 2B* of the analysis, but instead merely limits the recited abstract idea. As discussed above, limiting an abstract idea to a particular field of use does not convert an otherwise ineligible concept into an inventive one. *See Guidance*, 84 Fed. Reg. at 55, *id.* at nn. 31–32. Moreover, that the claimed method may perform a specific set of rules does not necessarily render the claim non-abstract. *See, e.g., Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (determining for a specific method of advertising and content distribution, that “each of [the] eleven steps merely instructs the practitioner to implement the abstract idea with routine, conventional activities,” and that although “some of the eleven steps were not previously employed in this

art,” that was “not enough—standing alone—to confer patent eligibility upon the claims at issue.” (internal quotation marks and brackets omitted); *accord Netflix, Inc. v. Rovi Corp.*, 114 F. Supp. 3d 927, 942 (N.D. Cal. 2015), *aff’d*, 670 F. App’x 704 (Fed. Cir. 2016).

Therefore, we determine that Claims 1–25, viewing their limitations “both individually and as an ordered combination,” do not recite significantly more than the judicial exception to transform the claim into patent-eligible subject matter. *See Alice*, 573 U.S. at 217 (internal quotation marks omitted) (quoting *Mayo*, 566 U.S. at 79).

Appellants contend the Examiner’s rejection, by merely considering the limitations of the claims individually but not in combination as an ordered whole, amounts to an “overgeneralization,” which Supreme Court and Federal Circuit precedents forbid. App. Br. 8–9. We disagree. In *Step 2B* of the Examiner’s § 101 analysis, the Examiner explicitly states that the limitations of Claim 1 are being considered not only individually, but also as a “combination of elements” and “as a whole.” Final Act. 7. The Examiner then proceeds to identify the additional limitations of Claim 1 within the context of the entire body of Claim 1 as a basis for performing the *Step 2B* analysis. *Id.* at 8–9. Having performed the *Step 2B* analysis (*see* discussion *supra*), the Examiner determines that “the claim, *when considered as a whole*, is nothing more than the instruction to implement the abstract idea in a particular, albeit well-understood, routine, and conventional technological environment.” *Id.* at 9 (emphasis added). These determinations more than adequately show that the Examiner considered the limitations of Claim 1 not only individually, but also as an ordered combination and as a whole.

To the extent Appellants are arguing that the Examiner ignored certain limitations of Claim 1, such as the gateway account, or the merchant manager module, or the claim's recited functionalities, including the performance of first and second approval processes, we disagree. Both the Examiner's rejection and the Answer consider all claim limitations, both individually and as an ordered combination of elements. *See* Final Act. 4–9; Ans. 4–6. That the Examiner made a different determination than Appellants regarding the recited claim elements does not mean the Examiner failed to properly consider them.

Appellants further argue that “[C]laim 25 has not been given separate patentable consideration” because the Examiner asserts Claim 25 recites limitations that do “no more than provid[e] additional detailed instructions to implement the abstract idea in [C]laim 1,” but Claim 25's “generation of the risk decision by the merchant manager module is . . . clearly different from [Claim 1's] generation of the merchant account by an acquiring bank, or [Claim 1's] generation of the gateway account by an interchange network payment processor.” App. Br. 16 (emphasis omitted) (quoting Final Act. 10). We disagree.

The Examiner gives Claim 25 “separate patentable consideration” by separately and specifically addressing its additional limitations in both the Final Office Action and the Answer. *See* Final Act. 10–12; Ans. 11–12. More specifically, the Examiner determines, and we agree, that Claim 25 is directed to an abstract idea because it merely adds details to the business method of Claim 1 by “assessing the transaction data of the first payment and generating a risk decision to approve or decline the transaction.” Final Act. 10; *see* Ans. 11. We determine that the additional limitations of Claim

25 recite steps that evaluate and manipulate data, which the Revised Guidance categorizes within the “mental processes” groupings of abstract ideas. *See* Rev. Guid., 84 Fed. Reg. at 52, 52 n.13. To the extent this abstract idea is separate or distinct from that of Claim 1, we note that “[a]dding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017). Additionally, to the extent there are any differences between the abstract idea(s) the Examiner has identified and the abstract idea(s) we identify for Claim 25, such differences do not give rise to a reversible error at least because they do not amount to a change in the thrust of the Examiner’s rejection.

Appellants additionally argue that the Examiner’s analysis is deficient because it “fails to consider how the method of Claim 25 represents an even further improvement over conventional processes (which do not perform all of the recited steps together in real-time, or assess the payment transaction together with the merchant risk on a per-transaction basis).” Reply Br. 5.

But Appellants do not present any persuasive evidence that Claim 25’s risk assessment limitations, when considered individually or in combination with the remaining limitations of the claim, yield an inventive concept. Even if Claim 25’s risk assessment limitations were novel or nonobvious and added a degree of particularity to the claim, this is “not enough—standing alone—to confer patent eligibility upon the claims at issue” because a specific abstract idea is still an abstract idea. *Ultramercial*, 772 F.3d at 716. That conventional methods may not perform all the recited steps of Claim 25 together in real-time does not compel a different result. *See id.*; *Bancorp*, 687 F.3d at 1278 (“[T]he fact that the required calculations

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could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.”).

In view of the foregoing, we sustain the rejection of Claims 1–25 under 35 U.S.C. § 101.

DECISION

The rejection of Claims 1–25 under 35 U.S.C. § 101 is AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

CONCLUSION

In summary:

Claims Rejected	Basis	Affirmed	Reversed
1–25	35 U.S.C. § 101	1–25	

AFFIRMED