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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SETH PRIEBATSCH

Appeal 2018-001999
Application 14/103,101
Technology Center 3600

Before MARC S. HOFF, JAMES R. HUGHES, and
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

AMUNDSON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant[1] seeks our review under 35 U.S.C. § 134(a) from a final rejection of claims 15–18 and 22–24, i.e., all pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] Appellant identifies the real party in interest as SCVNGR, Inc. App. Br. 2.

STATEMENT OF THE CASE

The Invention

According to the Specification, the invention "relates generally to systems and methods for ensuring secure payment transactions." Spec. ¶ 2.[2] The systems and methods purport to "securely transact payments for goods or services using a mobile device" by distributing information about a customer's identity and payment instrument (e.g., credit card or bank account) to different parties in the transaction flow. *Id.* ¶¶ 6–7; *see id.* ¶¶ 25, 28. The Specification explains that "none of the paying party (i.e., the customer), the party receiving the payment (i.e., the merchant), or the party facilitating the payment (i.e., the identity and payment manager) possesses both the customer's identity and the [customer's] payment instrument." *Id.* ¶ 7; *see id.* ¶ 28. By storing information about a customer's identity and payment instrument in different locations, "unauthorized access to the records of any single party in the transaction flow will not enable a thief to 'spoof' the [customer's] identity and initiate transactions under" the customer's name. *Id.* ¶ 7.

Exemplary Claims

Independent claims 15 and 22 exemplify the claims at issue and read as follows (with formatting added for clarity):

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[2] This decision uses the following abbreviations: "Spec." for the Specification, filed December 11, 2013; "Final Act." for the Final Office Action, mailed June 5, 2017; "App. Br." for the Appeal Brief, filed September 6, 2017; "Ans." for the Examiner's Answer, mailed November 17, 2017; and "Reply Br." for the Reply Brief, filed December 15, 2017.

15. A server-based method of facilitating payment by a user registered with a server, the method comprising:

using a processor to generate a code associated with a registered user, and

storing the code in a memory of a first server;

electronically transmitting the code to a mobile device of the registered user;

electronically transferring information characterizing a payment instrument of the registered user to a second server without storing financial account information associated with the payment instrument at the first server;

electronically receiving, from the second server, a token associated with the registered user's account information;

storing the token in memory;

electronically receiving, from a merchant device, the code and a payment amount;

computationally matching the code to the registered user and retrieving from memory the token associated with the user; and

electronically communicating the token and the payment amount to the second server to cause completion of a transaction between the registered user and the merchant,

wherein providing the code or token alone does not enable completion of the transaction.

22. A system for conducting a point-of-sale payment transaction between a merchant and a user registered with a server, the system comprising

a transaction server in communication with a point of sale device and a registered user device,

the transaction server comprising:

a processor; and

a processor-executable code-generation module for generating a code associated with a registered user,

wherein the processor is configured to:

(i) cause transmission of a code to a registered user device;

(ii) transfer financial account information associated with the registered user to a financial server without storing the financial account information at the transaction server;

(iii) receive, from a financial server via the communication module, a token associated with the account information;

(iv) associate the token with the registered user in a database;

(v) receive, from a point of sale device via the communication module, a request for a transaction comprising amount information and a code corresponding to the registered user;

(vi) retrieve from the database, in response to the request from the point of sale device, a token previously associated with the code; and

(vii) cause transmission, to a financial server, of the token and the payment amount to cause completion of a transaction between the registered user and the merchant,

wherein providing the code or token alone does not enable completion of the transaction.

App. Br. 20–21 (Claims App.).

The Prior Art Supporting the Rejections on Appeal

As evidence of unpatentability under 35 U.S.C. § 103(a), the Examiner relies on Patent Application Publication US 2009/0254479 A1 to Pharris, titled "Transaction Server Configured to Authorize Payment

Transactions Using Mobile Telephone Devices," and published October 8, 2009 ("Pharris").

The Rejections on Appeal

Claims 15–18 and 22–24 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 4–10; Ans. 3–10.

Claims 15–18 and 22–24 stand rejected under 35 U.S.C. § 112 ¶ 2 as indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention.[3] Final Act. 11–16; Ans. 10–16.

Claims 15–18 and 22–24 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Pharris. Final Act. 17–22; Ans. 17–21.

ANALYSIS

We have reviewed the rejections in light of Appellant's arguments that the Examiner erred. For the reasons explained below, we agree with the Examiner's conclusion concerning ineligibility under § 101, partially agree with the Examiner's conclusion concerning indefiniteness under § 112 ¶ 2, and disagree with the Examiner's conclusion concerning unpatentability under § 103(a). Except as noted below, we adopt the Examiner's findings and reasoning regarding ineligibility and indefiniteness in the Final Office Action and Answer. *See* Final Act. 4–10, 12–15, 22; Ans. 3–10, 12–14, 22–33. We provide the following to address and emphasize specific findings and arguments.

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[3] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. §§ 103 and 112, e.g., to rename § 112's subsections. Because Application 14/103,101 has an effective filing date earlier than the AIA's effective date for applications, this decision refers to the pre-AIA versions of §§ 103 and 112.

The § 101 Rejection of Claims 15–18 and 22–24

INTRODUCTION

The Patent Act defines patent-eligible subject matter broadly: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. In *Mayo* and *Alice*, the Supreme Court explained that § 101 "contains an important implicit exception" for laws of nature, natural phenomena, and abstract ideas. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012); *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014); *see Diamond v. Diehr*, 450 U.S. 175, 185 (1981). In *Mayo* and *Alice*, the Court set forth a two-step analytical framework for evaluating patent-eligible subject matter. *Mayo*, 566 U.S. at 77–80; *Alice*, 573 U.S. at 217–18.

Under *Mayo/Alice* step one, we "determine whether the claims at issue are directed to" a judicial exception, i.e., an abstract idea, a law of nature, or a natural phenomenon. *Alice*, 573 U.S. at 217. Step one involves looking at the "focus" of the claims at issue and their "character as a whole." *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018).

In January 2019, the PTO issued revised guidance for determining whether claims are directed to a judicial exception. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Guidance"). The 2019 Guidance applies to the Board. *Id.* at 50–51, 57 n.42; *see* 35 U.S.C. § 3(a)(2)(A) (investing the Director with responsibility "for providing policy direction" for the PTO). Neither the Examiner nor

Appellant had the benefit of the 2019 Guidance when advocating their respective positions concerning subject-matter eligibility.

The 2019 Guidance specifies two prongs for the analysis under *Mayo/Alice* step one (PTO step 2A). 84 Fed. Reg. at 54–55. The first prong requires evaluating "whether the claim recites a judicial exception, *i.e.*, an abstract idea, a law of nature, or a natural phenomenon." *Id.* at 54. "If the claim does not recite a judicial exception, it is not directed to a judicial exception," and it satisfies § 101. *Id.* "If the claim does recite a judicial exception, then it requires further analysis" under prong two. *Id.* Prong two requires evaluating "whether the claim as a whole integrates the recited judicial exception into a practical application of the exception." *Id.* "When the exception is so integrated, then the claim is not directed to a judicial exception," and it satisfies § 101. *Id.* "If the additional elements do not integrate the exception into a practical application, then the claim is directed to the judicial exception," and it "requires further analysis" under *Mayo/Alice* step two (PTO step 2B). *Id.*

Under *Mayo/Alice* step two, we "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements" add enough to transform the "nature of the claim" into "significantly more" than the judicial exception. *Alice*, 573 U.S. at 217–18, 221–22 (quoting *Mayo*, 566 U.S. at 78–79). Step two involves the search for an "inventive concept." *Alice*, 573 U.S. at 217–18, 221; *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1366 (Fed. Cir. 2019). "[A]n inventive concept must be evident in the claims." *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017).

MAYO/ALICE STEP ONE: PTO STEP 2A PRONG ONE

For *Mayo/Alice* step one, the Federal Circuit has noted that "[a]n abstract idea can generally be described at different levels of abstraction." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). Here, the Examiner determines that the claims are directed to the abstract idea of "facilitating payment transactions." Final Act. 6, 9; Ans. 5, 8, 30; *see* App. Br. 5. The Examiner identifies the abstract idea as "(i) a fundamental economic practice, (ii) a method of organizing human activities, (iii) an idea, in and of itself, and/or (iv) a mathematical relationship or formula." Final Act. 4; Ans. 3.

Appellant disputes that the claims are directed to an abstract idea. *See* App. Br. 5–8; Reply Br. 3–4. Specifically, Appellant analogizes the claims here to the claims in *Enfish* and asserts that "the present claims likewise recite a specific implementation of a solution to a problem in the art of network-based electronic commerce." App. Br. 7–8 (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016)); *see* Reply Br. 3. Appellant contends that the claimed "technical features prevent malicious access to user financial information while still maintaining the integrity and reliability of the transaction." App. Br. 8; *see* Reply Br. 3.

Appellant misplaces his reliance on *Enfish*. The claims in *Enfish* recited a "specific improvement to the way computers operate," i.e., an improved database configuration that permitted faster and more efficient searching. *Enfish*, 822 F.3d at 1330–33, 1336. The Federal Circuit has explained that the claims in *Enfish* "did more than allow computers to perform familiar tasks with greater speed and efficiency" and "actually permitted users to launch and construct databases in a new way." *Finjan,*

Inc. v. Blue Coat Sys., Inc., 879 F.3d 1299, 1305 (Fed. Cir. 2018). The Federal Circuit has also explained that the claims in *Enfish* "focused on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity." *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017).

In contrast to the claims in *Enfish*, the claims here use a computer in its ordinary capacity to perform "basic calculation, storage, and transmission functions," e.g., "processing data." *See* App. Br. 20–22 (Claims App.); *see also Alice*, 573 U.S. at 226; Final Act. 22; Ans. 22, 28. The claims here do not recite an advance in hardware or software that, for example, causes a computer itself or a database itself to operate faster or more efficiently.

The purported advance here concerns storing information about a customer's identity and payment instrument in different locations to thwart "unauthorized access to the records of any single party in the transaction flow." Spec. ¶ 7; *see id.* ¶¶ 8, 25, 28; App. Br. 6; Ans. 24; Reply Br. 4. For example, the Specification explains that "[b]ecause the data including a user's identity and payment instrument are separately stored" in different locations, "unauthorized access to any one of the records therein is insufficient to initiate a payment transaction under the user's name," and this "ensures the security of the mobile payment." Spec. ¶ 25. Similarly, Appellant asserts that the claims recite consummating "an electronic transaction in a manner that avoids simultaneous storage" of information about a customer's identity and payment instrument. App. Br. 6; Reply Br. 3. But storing information in different locations does not constitute a "specific improvement to the way computers operate" as in *Enfish*.

In addition, we determine that the claims recite abstract ideas falling within the three groupings of abstract ideas specified in the 2019 Guidance: mathematical concepts, certain methods of organizing human activity, and mental processes. *See* 84 Fed. Reg. at 51–52. As relevant here, the Guidance identifies the following as mental processes: "concepts performed in the human mind," such as "an observation, evaluation, judgment, [or] opinion." *Id.* at 52 (footnote omitted).

This appeal involves two independent claims, i.e., claims 15 and 22. As explained in the following paragraphs, each claim recites mental processes in various limitations.

Claim 15 recites "generate a code associated with a registered user." App. Br. 20. Claim 22 recites "generating a code associated with a registered user." *Id.* at 21. The Specification states that "the present invention is not limited to any particular form of code" and notes that a "code" includes a numerical sequence, e.g., as represented by a barcode. Spec. ¶¶ 9, 12, 21, 23–24, 30. Hence, the claimed generating encompasses a concept performed by a human mentally or with pen and paper. For instance, someone may generate an identification number associated with someone else, e.g., a social-security number or customer-identification number. Consistent with this, the Specification explains that Figure 3B "depicts a user record including various information that uniquely identifies the user," and Figure 3B shows the user record including an "ssn *string*" and a "braintree_customer_id *string*." *Id.* ¶ 19, Fig. 3B. The 2019 Guidance identifies a concept performed by a human mentally or with pen and paper as a mental process, and thus an abstract idea. 84 Fed. Reg. at 52 &

nn.14–15; *see also Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) ("*Symantec*").

Claim 15 recites "receiving . . . a token associated with the registered user's account information." App. Br. 20. Claim 22 recites "receive . . . a token associated with the account information." *Id.* at 21. The Specification equates a token to a number or code. *See* Spec. ¶¶ 3, 23–24. Hence, the claimed receiving encompasses a concept performed by a human mentally or with pen and paper. For instance, someone may receive a number associated with their account information, e.g., a credit-card number or bank-account number. The 2019 Guidance identifies a concept performed by a human mentally or with pen and paper as a mental process, and thus an abstract idea. 84 Fed. Reg. at 52 & nn.14–15.

Claim 15 recites "matching the code to the registered user." App. Br. 20. Claim 22 recites "associate the token with the registered user." *Id.* at 21. The claimed matching and associating encompass an evaluation the human mind may perform, e.g., using an index or table to ascertain information. For example, a person performs a similar evaluation when using a telephone book to locate a telephone number based on a name. The 2019 Guidance identifies an evaluation the human mind may perform as a mental process, and thus an abstract idea. 84 Fed. Reg. at 52.

MAYO/ALICE STEP ONE: PTO STEP 2A PRONG TWO

Because we determine that each independent claim recites abstract ideas, we consider whether each claim as a whole integrates the recited abstract ideas into a practical application. *See* 84 Fed. Reg. at 54–55. "Only when a claim recites a judicial exception and fails to integrate the exception

into a practical application, is the claim 'directed to' a judicial exception . . . ." *Id.* at 51.

Appellant analogizes the claims here to the claims in *DDR Holdings* and contends that "[t]he claimed subject matter addresses a new problem," i.e., "identity theft." App. Br. 9–10 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)); *see* Reply Br. 5. Further, Appellant asserts that "the problem is network-centric in nature" because "the very notion of validating a transaction based on electronically transmitted tokens is only meaningful in the context of contemporary electronic payment systems." App. Br. 10; *see* Reply Br. 5.

DDR Holdings does not help Appellant. There, the Federal Circuit determined that certain claims satisfied *Mayo/Alice* step two because "the claimed solution amount[ed] to an inventive concept for resolving [a] particular Internet-centric problem," i.e., a challenge unique to the Internet. *DDR Holdings*, 773 F.3d at 1257–59. The Federal Circuit explained that the patent-eligible claims specified "how interactions with the Internet are manipulated to yield a desired result . . . that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink." *Id.* at 1258. The court reasoned that those claims recited a technological solution "necessarily rooted in computer technology" that addressed a "problem specifically arising in the realm of computer networks." *Id.* at 1257.

According to the Federal Circuit, "*DDR Holdings* does not apply when . . . the asserted claims do not 'attempt to solve a challenge particular to the Internet.'" *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1375 (Fed. Cir. 2017) (quoting *In re TLI Commc'ns LLC*

Patent Litig., 823 F.3d 607, 613 (Fed. Cir. 2016)). The claims here do not attempt to solve a challenge particular to the Internet. *See* Ans. 28–29.

As the Examiner explains, "the problem of identity theft long pre-dates the Internet." Ans. 28. As the Examiner also explains, "in some transactions," a customer can "pay by phone, without being in person or showing identification," and "a telephone transaction (an older mode of transaction) would have the same issue that Appellant claims is the issue with a mobile device, i.e., the bearer not being unambiguously identified as the owner." *Id.* at 29.

Appellant asserts that the claims "recite a technical improvement to the payment-processing infrastructure and electronic transaction procedures" that "prevents exploitation of a known channel for identity theft." App. Br. 7–8. Appellant also asserts that the claims "recite 'a specific way of enabling' an electronic transaction to occur without risking malicious access to user financial information." Reply Br. 4 (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1356 (Fed. Cir. 2016)).

Appellant's assertions do not persuade us of Examiner error because the claims do not capture the alleged improvement. *See* Ans. 24–26. Unclaimed features do not support patent eligibility. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369–70 (Fed. Cir. 2018); *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1338–39 (Fed. Cir. 2017); *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1331–32 (Fed. Cir. 2017). As the Examiner reasons, the claims "do not actually achieve the purported advance." Ans. 26.

Here, claim 15 specifies that a "memory" in a "first server" stores a "code associated with a registered user." App. Br. 20. The claimed "code"

may denote a customer's identity. *See* Spec. ¶¶ 23–24. For instance, the Specification indicates that a "code" may serve as a "unique user identifier." *Id.* ¶¶ 23–24; *see id.* ¶ 29. Further, claim 15 specifies that a "memory" stores a "token associated with the registered user's account information." App. Br. 20. The claimed "token" may identify the customer's payment instrument (e.g., credit card or bank account). *See* Spec. ¶¶ 3, 24–25; *see also* Final Act. 13. For example, the Specification explains that tokens include "credit and debit card numbers." Spec. ¶ 3; *see id.* ¶ 24. Claim 15 permits the "memory" in the "first server" to store both the claimed "code" (customer-identity information) and the claimed "token" (payment-instrument information). App. Br. 20. Consistent with this, the Specification discloses a server with a database storing both a "generated user identifier" (customer-identity information) and a "user's financial account information" (payment-instrument information). Spec. ¶ 24, Fig. 3A. Because claim 15 does not require storing customer-identity information and payment-instrument information in different locations, it does not capture the alleged improvement or achieve the purported advance.

Further, claim 22 specifies that a "transaction server" generates a "code associated with a registered user" and that the "transaction server" receives from a "financial server" a "token associated with the account information." App. Br. 21. As explained above for claim 15, the claimed "code" may denote a customer's identity, and the claimed "token" may identify the customer's payment instrument (e.g., credit card or bank account). *See* Spec. ¶¶ 3, 23–24, 29. Claim 22 permits the "transaction server" to store both the claimed "code" (customer-identity information) and the claimed "token" (payment-instrument information). App. Br. 21.

Because claim 22 does not require storing customer-identity information and payment-instrument information in different locations, it does not capture the alleged improvement or achieve the purported advance.

Claim 15 recites transferring payment-account information to a "second server" without storing account-related information at the "first server." App. Br. 20. Claim 22 similarly recites transferring payment-account information to a "financial server" without storing account-related information at the "transaction server." *Id.* at 21. But the claimed information transfer without storage does not preclude storage at a later time, i.e., after the claimed information transfer occurs.

Based on *BASCOM*, Appellant argues that "claims to an invention that solves a 'problem in a particular, technical way'" satisfy § 101. App. Br. 10–11 (citing *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016)). But *BASCOM* does not help Appellant. There, the claims recited a "specific method of filtering Internet content" requiring "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 1345–46, 1350. The Federal Circuit reasoned that the claims covered "a technology-based solution . . . to filter content on the Internet that overcomes existing problems with other Internet filtering systems" and "improve[s] an existing technological process." *Id.* at 1351 (citing *Alice*, 573 U.S. at 223); *see Alice*, 573 U.S. at 223 (explaining that "the claims in *Diehr* were patent eligible because they improved an existing technological process").

In contrast to the claims in *BASCOM*, the claims here do not cover a technology-based solution that improves an existing technological process.

See Final Act. 6, 8; Ans. 5–6, 8, 28. As the Examiner determines, "[t]here is no indication that the combination of elements improves the functioning of a computer or improves any other technology." Final Act. 8; Ans. 8.

Appellant argues that the claims do not "pre-empt other ways to facilitate electronic payments" and do not "foreclose the concept of 'payment transactions' implemented on a general-purpose computer." App. Br. 12. That argument does not persuade us of Examiner error. While preemption may denote patent ineligibility, its absence does not demonstrate patent eligibility. *See FairWarning, IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016); *see* Ans. 33. For claims covering a patent-ineligible concept, preemption concerns "are fully addressed and made moot" by an analysis under the *Mayo/Alice* framework. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

Appellant contends that "the novelty and unobviousness of the present claims over" prior-art alternatives "demonstrates that the claimed subject matter" satisfies § 101. App. Br. 12. That contention does not persuade us of Examiner error. "[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for" patent eligibility. *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016); *see* Ans. 31. "[A] claim for a *new* abstract idea is still an abstract idea." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (emphasis in original). Further, the Federal Circuit has expressly rejected the notion that "abstract ideas remain patent-eligible under § 101 as long as they are new ideas, not previously well known, and not routine

activity." *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–16 (Fed. Cir. 2014).

The 2019 Guidance identifies exemplary considerations indicating that additional elements in claims "may have integrated the [judicial] exception into a practical application." 84 Fed. Reg. at 55 & nn.25–29 (citing *Manual of Patent Examining Procedure* §§ 2106.05(a)–(c), 2106.05(e) (9th ed. rev. 08.2017 Jan. 2018)). As the above analysis indicates, we have evaluated Appellant's arguments in light of those exemplary considerations. For the reasons discussed above, however, we determine that each independent claim as a whole does not integrate the recited abstract ideas into a practical application. Thus, each claim is directed to a judicial exception and does not satisfy § 101 under *Mayo/Alice* step one.

MAYO/ALICE STEP TWO: PTO STEP 2B

Because we determine that each independent claim is directed to a judicial exception, we "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements" add enough to transform the "nature of the claim" into "significantly more" than the judicial exception. *See Alice*, 573 U.S. at 217–18, 221–22 (quoting *Mayo*, 566 U.S. at 78–79). Under *Mayo/Alice* step two, we "look with more specificity at what the claim elements add, in order to determine 'whether they identify an "inventive concept" in the application of the ineligible subject matter' to which the claim is directed." *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (quoting *Elec. Power Grp.*, 830 F.3d at 1353). An "inventive concept" requires more than "well-understood, routine,

conventional activity already engaged in" by the relevant community. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016) (quoting *Mayo*, 566 U.S. at 79–80). But a "non-conventional and non-generic arrangement of known, conventional pieces" may provide an "inventive concept" satisfying step two. *BASCOM*, 827 F.3d at 1350.

Here, the Examiner finds that "the additional elements of the claims" constitute "generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry." Final Act. 6–10, 22; Ans. 6–9, 22. The Examiner determines that "the performance of the abstract idea by a standard and conventional computer system is insufficient to transform the abstract idea into a patent-eligible application." Final Act. 10; Ans. 9.

We agree with the Examiner. As explained in the following paragraphs, we conclude that each independent claim lacks an "inventive concept" that transforms the recited abstract ideas into a patent-eligible invention.

Claim 15 requires a "first server" with a "memory," a "processor," a "second server," a "mobile device," and a "merchant device." App. Br. 20. Claim 18 depends from claim 15 and adds a "database." *Id.* at 21. Claim 22 requires a "transaction server" with a "processor" and a "database," a "financial server," a "user device," and a "point-of-sale device." *Id.* The Specification describes those elements generically and evidences their conventional nature. *See, e.g.*, Spec. ¶¶ 22, 32–35, 37–38.

For example, the Specification describes a "server" generically, saying:

> The terms "component," "system," "platform," "module," and the like refer broadly to a computer-related entity or an entity related to an operational machine with one or more specific functionalities. Such entities can be hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on a server and the server can be a component.

Spec. ¶ 32; *see id.* ¶ 34. Hence, a "server" can comprise "hardware, a combination of hardware and software, software, or software in execution." *Id.* ¶ 32.

Further, the Specification describes a "processor" generically, saying:

> The processing unit that executes commands and instructions may be a general purpose computer, but may utilize any of a wide variety of other technologies including a special purpose computer, a microcomputer, minicomputer, mainframe computer, programmed microprocessor, micro-controller, peripheral integrated circuit element, a CSIC (customer-specific integrated circuit), ASIC (application-specific integrated circuit), a logic circuit, a digital signal processor, a programmable logic device, such as an FPGA (field-programmable gate array), PLD (programmable logic device), PLA (programmable logic array), RFID processor, smart chip, or any other device or arrangement of devices that is capable of implementing the steps of the processes of the invention.

Spec. ¶ 33; *see id.* ¶ 34.

In addition, the Specification indicates that a "memory" includes "removable/nonremovable, volatile/nonvolatile computer storage media" and then discusses examples, saying:

> For example, a hard disk drive may read or write to nonremovable, nonvolatile magnetic media. A magnetic disk drive may read from or writes [sic] to a removable, nonvolatile magnetic disk, and an optical disk drive may read from or write to a removable, nonvolatile optical disk such as a CD-ROM or other optical media. Other removable/nonremovable, volatile/nonvolatile computer storage media that can be used in the exemplary operating environment include, but are not limited to, magnetic tape cassettes, flash memory cards, digital versatile disks, digital video tape, solid state RAM, solid state ROM, and the like.

Spec. ¶ 38; *see id.* ¶¶ 35, 37.

Moreover, the Specification explains that "the term 'mobile device' . . . refers to a 'smart phone' or tablet with advanced computing ability that, generally, facilitates bi-directional communication and data transfer using a mobile telecommunication network" and that mobile devices include "IPHONES (available from Apple Inc., Cupertino, Calif.), BLACKBERRY devices (available from Research in Motion, Waterloo, Ontario, Canada), or any smart phones equipped with the ANDROID platform (available from Google Inc., Mountain View, Calif.), tablets, such as the IPAD and KINDLE FIRE, and personal digital assistants (PDAs)." Spec. ¶ 22; *see id.* ¶ 10. The Specification also explains that "terms like 'user equipment,' 'mobile station,' 'mobile,' 'communication device,' 'access terminal,' 'terminal,' 'handset,' and similar terminology, refer to a wireless device (e.g., cellular phone, smart phone, computer, PDA, set-top box, Internet Protocol Television (IPTV), electronic gaming device, printer, and so forth) utilized by a user" to receive or convey information. *Id.* ¶ 32.

In addition, the claimed servers, processors, memory, databases, and devices operate to collect, process, and communicate data. *See* App. Br.

20–21; *see also* Final Act. 22; Ans. 22. Court decisions have recognized that generic computer components operating to collect, process, and communicate data are well understood, routine, and conventional to a skilled artisan. *See*, *e.g.*, *Alice*, 573 U.S. at 226; *SAP Am.*, 898 F.3d at 1164–65 & n.1, 1170; *Symantec*, 838 F.3d at 1316–20; *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1334 (Fed. Cir. 2015); *Ultramercial*, 772 F.3d at 715–16; *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014).

For example, the system claims in *Alice* recited a "data processing system" with a "communications controller" and a "data storage unit," i.e., a memory or database. *Alice*, 573 U.S. at 226. The Supreme Court decided that the system claims failed to satisfy § 101 because "[n]early every computer" includes those generic components for performing "basic calculation, storage, and transmission functions" and the system claims simply implemented the same abstract idea as the method claims. *Id.* at 226–27. The Court reasoned that (1) "the system claims are no different from the method claims in substance"; (2) "[t]he method claims recite the abstract idea implemented on a generic computer"; and (3) "the system claims recite a handful of generic computer components configured to implement the same idea." *Id.* at 226.

Here, the claimed servers, processors, memory, databases, and devices perform "basic" functions that nearly every computer performs. *See* App. Br. 20–21; *see also* Final Act. 6–10, 22; Ans. 6–9, 22; Spec. ¶¶ 22, 32–35, 37–38. For instance, nearly every computer includes a processor for manipulating data and a memory or database for storing data. Hence, the claimed generic computer components do not satisfy the "inventive concept"

requirement. *See, e.g., Mortg. Grader Inc. v. First Choice Loan Servs., Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (holding that "generic computer components such as an 'interface,' 'network,' and 'database'" did not satisfy the "inventive concept" requirement); *FairWarning*, 839 F.3d at 1095–96 (describing the claimed "microprocessor" and "user interface" as "generic computer elements").

"Whether a combination of claim limitations supplies an inventive concept that renders a claim 'significantly more' than an abstract idea to which it is directed is a question of law." *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). Given the claimed generic computer components that perform generic computer functions, we conclude that the combination of limitations in each independent claim does not supply an "inventive concept" that renders the claim "significantly more" than an abstract idea. Thus, each claim does not satisfy § 101 under *Mayo/Alice* step two.

SUMMARY FOR PATENT ELIGIBILITY

For the reasons discussed above, each independent claim fails to satisfy § 101 under *Mayo/Alice* step one and step two. Thus, we sustain the § 101 rejection of the independent claims. We also sustain the § 101 rejection of the dependent claims because Appellant does not argue eligibility separately for them. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The § 112 ¶ 2 Rejection of Claims 15–18 and 22–24

INTRODUCTION

Section 112's second paragraph requires that the specification "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

35 U.S.C. § 112 ¶ 2. Section 112's definiteness requirement "strikes a 'delicate balance' between 'the inherent limitations of language' and providing 'clear notice of what is claimed.'" *Sonix Tech. Co. v. Publ'ns Int'l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017) (quoting *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 909 (2014)).

Due to the need for "particular[ity]" and "distinct[ness]," claim language that "is ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed invention" warrants a rejection under § 112 ¶ 2. *In re Packard*, 751 F.3d 1307, 1311, 1313 (Fed. Cir. 2014); *see Ex parte McAward*, Appeal 2015-006416, 2017 WL 3669566, at *5 (PTAB Aug. 25, 2017) (precedential); *see also In re Warmerdam*, 33 F.3d 1354, 1361 (Fed. Cir. 1994) (explaining that "[t]he legal standard for definiteness is whether a claim reasonably apprises those of skill in the art of its scope"); *In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971) (requiring "a reasonable degree of precision and particularity" in claims).

INDEPENDENT CLAIM 15 AND DEPENDENT CLAIM 16

Claim 15 recites "electronically transferring information characterizing a payment instrument of the registered user to a second server without storing financial account information associated with the payment instrument at the first server." App. Br. 20. The Examiner determines that this step lacks clarity because it fails to specify (1) where the transferred information originates, i.e., "from the first server or from the mobile device," and (2) whether the transferred information is "distinct from the account information." Final Act. 12–13; *see* Ans. 37.

Citing the Specification, Appellant asserts that a "payment instrument is not an account, so there is no confusion with account information." App. Br. 15 (citing Spec. ¶ 25). In addition, Appellant contends that the Specification "discloses transmission from the user's mobile device as a representative example, but the claim is not rendered indefinite or excessive in scope for not specifying an originating device." *Id.*

Contrary to Appellant's assertion, the Specification explains that a "payment instrument" includes a credit card or bank account. *See* Spec. ¶¶ 7, 25; *see also* Ans. 37. Yet we agree with Appellant that claim 15's information-transfer step, viewed in light of the Specification, does not suffer from indefiniteness. The Specification describes representative examples of information transfer according to this step that apprise skilled artisans of its scope. *See*, *e.g.*, Spec. ¶¶ 24–27. In one embodiment, a "mobile device" sends payment-account information directly to a payment gateway corresponding to the claimed "second server." *Id.* ¶ 25. In another embodiment, the "mobile device" sends payment-account information to a management server corresponding to the claimed "first server," and the management server "encrypts the received information" and "passes the encrypted data" to the payment gateway corresponding to the claimed "second server." *Id.*

The Examiner determines that claim 15 "omit[s] essential steps," and "such omission amount[s] to a gap between the steps." Final Act. 14; *see* Ans. 38. The Examiner reasons that "[t]here is no recitation of the user code being received by the merchant device, thus no clear step demonstrating how the merchant device would obtain and further send the user code." Final Act. 14; *see* Ans. 38.

In response, Appellant asserts that "it is not necessary to specify exactly how the merchant device receives the code in order to satisfy § 112." App. Br. 16. Appellant points out that the Specification states, "The reader 112 [in the merchant device], may be capable of reading and/or decoding, for example, a barcode, a radiofrequency identification (RFID) code, or a 'Quick Response' (QR) code, and/or receiving signals, such as NFC signals, audio signals, or infrared signals." *Id.* (quoting Spec. ¶ 21.) Appellant also asserts that § 112 "does not require the claims to set forth the precise manner of communication when the specification contemplates and teaches various modes." *Id.* at 17.

We agree with Appellant that claim 15, viewed in light of the Specification, does not omit an essential step. The Specification describes various ways a merchant device may obtain the claimed "code." *See, e.g.*, Spec. ¶¶ 21, 27. In addition, the Specification notes that "the method of identifier transferred from the customer to the merchant may be irrelevant." *Id.* ¶ 30.

For the reasons discussed above, we do not sustain the § 112 ¶ 2 rejection of claim 15. Claim 16 depends from claim 15. App. Br. 20. The claim 16 rejection rests on the claim 15 rejection. Final Act. 11–14. For the reasons discussed above for claim 15, we do not sustain the § 112 ¶ 2 rejection of claim 16.

DEPENDENT CLAIM 17

Claim 17 depends from claim 15 and specifies that "the code is a seed code that further generates a unique mature code readable by a merchant device." App. Br. 20. The claim 17 rejection rests on the claim 15 rejection. Final Act. 11–14. In addition, the Examiner determines that (1) claim 17

includes "optional claim language," (2) the optional claim language "is immaterial as it neither expands nor narrows" claim scope, and (3) "such claim language fails to particularly point out and distinctly claim the subject matter of the invention." Final Act. 16 (citing *In re Johnston*, 435 F.3d 1381 (Fed. Cir. 2006); *In re Collier*, 397 F.2d 1003 (CCPA 1968); *Manual of Patent Examining Procedure* § 2103(I)(C)). The Examiner explains that the phrase "readable by a merchant device" leaves open "the possibility that the claim limitations based upon the 'readable' condition are not exercised or triggered." *Id.*

Appellant does not address the Examiner's additional reasoning for rejecting claim 17 under § 112 ¶ 2. *See* App. Br. 14–18; Reply Br. 3–7. Thus, we sustain the § 112 ¶ 2 rejection of claim 17.

DEPENDENT CLAIM 18

Claim 18 depends from claim 15 and specifies that "the first server comprises a database for storing records, a database record being associated with the user and including user-identifying information, the code or a seed therefor, and the token." App. Br. 21. The claim 18 rejection rests on the claim 15 rejection. Final Act. 11–14. In addition, the Examiner determines that claim 18 "is unclear" because "[a] server may contain a database" but "it appears that Applicant is reciting that the server **is** a database for storing records." *Id.* at 14 (emphasis in original); *see* Ans. 38. The Examiner also determines that "it is unclear if there is supposed to be an active step being claimed to store a particular record that is somehow generated (though also not claimed) or if it is merely a reference to the potential for a record to be stored in a database." Final Act. 15.

In response, Appellant contends that claim 18 "clearly states that the first server comprises a database, so the basis for the Examiner's erroneous perception is unclear." App. Br. 17 (emphasis in original). Appellant also contends that claim 18 "do[es] not require an additional step specifying the origin of a database record because the contents of that record are specified with particularity." *Id.*

We agree with Appellant that claim 18, viewed in light of the Specification, satisfies § 112's definiteness requirement. *See*, *e.g.*, Spec. ¶¶ 10, 13, 23–24, 26–29. Claim 18 uses the inclusive or open-ended term "comprises" and, therefore, does not equate a "server" to a "database" or require an additional step. *See Regeneron Pharm., Inc. v. Merus N.V.*, 864 F.3d 1343, 1352 (Fed. Cir. 2017) (citing *Manual of Patent Examining Procedure* § 2111.03). Hence, we do not sustain the § 112 ¶ 2 rejection of claim 18.

INDEPENDENT CLAIM 22 AND DEPENDENT CLAIMS 23 AND 24

For claim 22, the Examiner identifies "antecedent basis issues." Final Act. 11–12. In particular, processor limitation (ii) recites "a financial server," and processor limitation (iii) also recites "a financial server." *Id.* at 12; *see* App. Br. 21. The Examiner explains that "[i]t is unclear if this is a reference to two distinct financial servers or the same server in each instance." Final Act. 12. In addition, processor limitation (iii) recites "the communication module," but no preceding limitation recites "a communication module." *Id.*; *see* App. Br. 21.

Further, claim 22 recites two codes: "a code associated with a registered user" and "a code corresponding to the registered user." App. Br. 21. Claim 22 later recites "retrieve . . . a token previously associated

with the code." *Id.* But claim 22 fails to specify what earlier recited "code" became associated with a token. Also, claim 22 recites two tokens: "a token associated with the account information" and "a token previously associated with the code." *Id.* Claim 22 later recites "cause transmission . . . of the token and the payment amount." *Id.* But claim 22 fails to specify what earlier recited "token" accompanies the payment amount in the transmission. *Id.*

Appellant does not address the "antecedent basis issues" the Examiner identifies. *See* App. Br. 14–18; Reply Br. 3–7. Thus, we sustain the § 112 ¶ 2 rejection of claim 22.

Claim 23 depends from claim 22. App. Br. 22. The claim 23 rejection rests on the claim 22 rejection. Final Act. 12, 15. Because claim 23 does not resolve the "antecedent basis issues" the Examiner identifies, we sustain the § 112 ¶ 2 rejection of claim 23.

Claim 24 depends from claim 22 and specifies that "the code is a seed code that further generates a unique mature code readable by a merchant device." App. Br. 22. The claim 24 rejection rests on the claim 22 rejection. Final Act. 12, 15. The claim 24 rejection also rests on the same additional reasoning discussed above for claim 17. *Id.* at 16. Appellant does not address the Examiner's additional reasoning for rejecting claim 24. *See* App. Br. 14–18; Reply Br. 3–7. Because claim 24 does not resolve the "antecedent basis issues" the Examiner identifies and because Appellant does not address the Examiner's additional reasoning for rejecting claim 24, we sustain the § 112 ¶ 2 rejection of claim 24.

The § 103(a) Rejection of Claims 15–18 and 22–24

INDEPENDENT CLAIMS 15 AND 22

As noted above, the § 103(a) rejection of claims 15 and 22 rests on Pharris. *See* Final Act. 17–21. Appellant argues that the Examiner erred in rejecting each claim because Pharris fails to teach or suggest (1) claim 15's limitation "electronically transferring information characterizing a payment instrument of the registered user to a second server without storing financial account information associated with the payment instrument at the first server" and (2) claim 22's limitation "transfer financial account information associated with the registered user to a financial server without storing the financial account information at the transaction server." *See* App. Br. 13–14. Specifically, Appellant asserts that "[t]hese limitations in particular, and the multi-entity transactional problem they address, are utterly absent from Pharris." *Id.* at 14.

For these limitations, the Examiner relies on Pharris paragraphs 30–32. Final Act. 18–19. In particular, the Examiner finds that paragraphs 30–32 disclose that an "individual interacts with [a] phone to initiate [a] payment transaction," and "software on the phone generates a bar code that uniquely identifies the transaction which is read by the merchant device." *Id.* at 18.

Based on the record before us, we agree with Appellant that the Examiner does not adequately explain how the cited portions of Pharris teach or suggest the disputed limitations in claims 15 and 22. Pharris describes a payment system that permits a customer to enroll a mobile telephone with a transaction server and supply payment-account information (e.g., credit card or bank account) to the transaction server. Pharris

¶¶ 10–12, 24, 30, 45, 55, 59. The transaction server stores the account information and provides the mobile telephone with "an alias or 'ghosted' name" for the account. *Id.* ¶¶ 28, 45, 55, 57, 59. Further, an affiliate bank has a server and database containing "account information, e.g., account numbers and account balances." *Id.* ¶ 44; *see id.* ¶¶ 26, 42, 55.

To make a payment, a user selects a ghosted account on the mobile telephone, and the mobile telephone generates "a barcode used to uniquely identify" the payment transaction. Pharris ¶ 30; *see id.* ¶¶ 31–32, 70, 72–73. A merchant device "read[s] the barcode and recover[s] the information identifying the transaction." *Id.* ¶ 30; *see id.* ¶¶ 31–32, 74. The merchant device "then contacts the . . . transaction server with the barcode and a payment amount." *Id.* ¶ 30; *see id.* ¶¶ 31–32. "[T]he transaction server processes the transaction using the ghosted account specified by the user." *Id.* ¶ 74. The affiliate-bank server may process messages from the transaction server, such as "messages to transfer funds to a merchant." *Id.* ¶ 44; *see id.* ¶ 42.

Claim 15's "mobile device" maps to Pharris's mobile telephone.
Claim 22's "user device" also maps to Pharris's mobile telephone.
Claim 15's "merchant device" maps to Pharris's merchant device.
Claim 22's "point-of-sale device" also maps to Pharris's merchant device.

But the Examiner does not adequately explain how claim 15's "first server" and "second server" map to Pharris's servers or how claim 22's "transaction server" and "financial server" map to Pharris's servers. *See* Final Act. 17–21; Ans. 17–21, 33–36. Further, in Pharris the transaction server and the affiliate-bank server each store account information. Pharris ¶¶ 28, 44–45, 55, 59; *see id.* ¶ 42. The Examiner does not adequately

explain how Pharris teaches or suggests the information transfer without storage required by claims 15 and 22. Hence, we do not sustain the § 103(a) rejection of claims 15 and 22.

DEPENDENT CLAIMS 16–18, 23, AND 24

Claims 16–18 depend from claim 15, and claims 23 and 24 depend from claim 22. For the reasons discussed for claims 15 and 22, we do not sustain the § 103(a) rejection of claims 16–18, 23, and 24.

DECISION

We affirm the rejection of claims 15–18 and 22–24 under 35 U.S.C. § 101.

We reverse the rejection of claims 15, 16, and 18 under 35 U.S.C. § 112 ¶ 2.

We affirm the rejection of claims 17 and 22–24 under 35 U.S.C. § 112 ¶ 2.

We reverse the rejection of claims 15–18 and 22–24 under 35 U.S.C. § 103(a).

Because we affirm at least one ground of rejection for each claim on appeal, we affirm the Examiner's decision to reject all of the claims on appeal. *See* 37 C.F.R. § 41.50(a)(1).

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED