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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte OLEG MAKHOTIN and ERICK WONG

_____

Appeal 2019-005150
Application 14/275,775
Technology Center 3600

_____

Before CARL W. WHITEHEAD JR., DAVID M. KOHUT, and
IRVIN E. BRANCH, Administrative Patent Judges.

PER CURIAM

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the
Examiner's decision to reject claims 1, 2, 4, 8–13, 15, 19, and 20.[2] We have
jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use "Appellant" to reference the applicant as defined in
37 C.F.R. § 1.42. Appellant identifies the real party in interest as "Visa
International Service Association." Appeal Br. 3.

[2] Claims 3, 5–7, 14, and 16–18 were previously cancelled.

STATEMENT OF THE CASE

Appellant's Invention

Appellant's invention relates to "mobile payment account generation and provisioning." Spec. ¶ 4. Claim 1, reproduced below, is illustrative of argued subject matter.

> 1.   A method for processing a wallet request from a wallet provider through an interconnectivity hub, the wallet request associated with a mobile communication device including a secure element through an interconnectivity hub, the method comprising:
>
> storing, at a server computer associated with the interconnectivity hub, a routing table including routing information corresponding to predetermined secure element management relationships, the routing table further including protocol indicators for each of a plurality of trusted service managers;
>
> updating, by the server computer, the routing table to further include additional routing information corresponding to predetermined secure element management relationships for a secure element trusted service manager computer, and to further include a second protocol indicator of a second protocol associated with the secure element trusted service manager computer, the secure element trusted service manager computer associated with the secure element;
>
> receiving, by the server computer associated with the interconnectivity hub, the wallet request associated with the mobile communication device, the wallet request including an

account identifier and a mobile communication device identifier, the wallet request being in a first protocol;

determining, by the server computer, an issuer associated with the account identifier;

obtaining, by the server computer, application data associated with the issuer and the account identifier;

sending, by the server computer, the wallet request to a central trusted service manager computer using a third protocol, the central trusted service manager computer being associated with the interconnectivity hub;

receiving, by the server computer, an acknowledgement response message from the central trusted service manager computer, the acknowledgement response message indicating that the central trusted service manager computer has validated the wallet request;

determining, by the server computer, a destination address of the secure element trusted service manager computer using the routing information corresponding to the predetermined secure element management relationships stored in the routing table;

determining, by the server computer, the second protocol associated with the secure element trusted service manager computer using the routing table;

receiving, by the server computer, an eligibility check request from the central trusted service manager computer to check an eligibility of the mobile communication device for provisioning;

sending, by the server computer, the eligibility check request to the secure element trusted service manager computer using the second protocol and the destination address;

receiving, by the server computer, an eligibility check response from the secure element trusted service manager computer, the eligibility check response including an indication of the

eligibility of the mobile communication device for provisioning;

sending, by the server computer, the eligibility check response to the central trusted service manager computer using the third protocol;

obtaining, by the server computer, a secure element key from the secure element trusted service manager computer associated with the secure element using the second protocol; and

providing, by the server computer, the application data and the secure element key to a provisioning computer for delivery to the secure element of the mobile communication device.

Appeal Br. 24–25 (Claims Appendix).

Rejections

Claims 1, 2, 4, 8–13, 15, 19, and 20 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception of § 101 (i.e., of statutory subject matter) without significantly more. Final Act. 6–7.

Claims 1, 2, 4, 8, 9, and 11 stand rejected under 35 U.S.C. § 112(a) as failing to comply with the written description requirement. Final Act. 8–9.

Claims 1, 2, 4, 8, 9, and 11 stand rejected under 35 U.S.C. § 112(b) as being indefinite in scope. Final Act. 9–10.

Claims 1, 10, 11, and 12 stand rejected under 35 U.S.C. § 103 as unpatentable over Koh (US 2012/0130838 A1; May 24, 2012) and Arvidsson (US 9,572,025 B2; Feb.14, 2017). Final Act. 10–13.

Claims 2, 4, 8, 9, 13, 15, 19, and 20 stand rejected under 35 U.S.C. § 103 as unpatentable over Koh, Arvidsson, and Ginter (US 5,892,900; Apr. 6, 1999). Final Act. 13–18.

Principles of Law

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

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*, 573 U.S. at 217−18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75−77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, i.e., the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

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

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U.S. 252, 267−68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that "a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 187; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the 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* and *Flook*); *see*, *e.g.*, *id.* at 187 ("It is now commonplace that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (citation 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). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

PTO Guidance

The PTO provides guidance for 35 U.S.C. § 101. USPTO's 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Guidance"). Under the Guidance, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, and mental processes); and

> (2) additional elements that integrate the judicial exception into a practical application (*see* Manual of Patent Examining Procedure (MPEP) § 2106.05(a)−(c), (e)−(h) (9th ed. 2018)).

84 Fed. Reg. at 52−55. Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then conclude the claim is directed to a judicial exception (*id.* at 54) and look to whether the claim:

> (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (see MPEP § 2106.05(d)); or

> (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

Id. at 56.

OPINION

35 U.S.C. § 112(a), WRITTEN DESCRIPTION

We are persuaded of error in the § 112(a) rejection of claims 1, 2, 4, 8, 9, and 11. We accordingly do not sustain the rejection.

We address the errors with reference to claim 1. The Examiner rejects claims 2, 4, 8, 9, and 11 only because they depend from claim 1. Final Act. 9.

A first at-issue claim limitation recites "updating, by the server computer, the routing table to further include additional routing information . . . and . . . a second protocol indicator of a second protocol." *Id.* at 8. The Examiner finds the Specification is "silent" as to the routing information and protocol indicator. *Id.* Appellant contends:

> The Specification provides written description . . . in stating the [invention's] hub may be a server computer, . . . includes a routing table module, … [and] may use the routing table module to determine an address and protocol . . . received during the . . . registration process[.] . . . Thus, the routing table is updated (e.g., during a registration process) to include additional routing information and protocol indicators[.]

Appeal Br. 18 (citing Spec. ¶¶ 8, 51, 57, 167; internal quotation marks omitted).

We agree with Appellant in view of the Specification's cited paragraph 167 stating that "the hub may use the routing table module to determine an address and protocol . . . received during the on-boarding or registration process." Though the at-issue claim limitation requires "updating" and paragraph 167 does not use this term to describe the receipt and storing of an address and protocol, a plain meaning of "update" includes "Computers. to incorporate new or more accurate information in (a database, program, procedure, etc.)." Dictionary.com (https://www.dictionary.com/

browse/update?s=t) (last visited May 26, 2020). As Appellant contends in
the Reply Brief, the Examiner's response to the above argument does not
address paragraph 167 (Reply Br. 10; Ans. 7), much less show the disclosed
receipt and storing of an address and protocol fails to describe an "update."

A second (and last) at-issue claim limitation recites receiving and
sending, "by the server computer," both an eligibility check request and
eligibility check request response. Final Act. 8–9. The Examiner finds the
Specification describes these operations as being performed by the
invention's "hub"—not by the invention's "server computer." *Id.* at 9.
Appellant contends, and the Examiner does not dispute, the Specification's
paragraph 51 confirms "the hub may be a server computer." Appeal Br. 18.

We agree with Appellant in view of the Specification's cited
paragraph 51 stating that "the hub may be a server computer." We add
that Appellant's Figure 4 shows an "interconnectivity service hub 130" as
performing the at-issue receiving and sending steps and the Specification's
paragraph 185 describes a "server computer of [that] hub (hub computer)
130."

35 U.S.C. § 112(b), INDEFINITENESS

We are persuaded of error in the § 112(b) rejection of claims 1, 2, 4,
8, 9, and 11. We accordingly do not sustain the rejection.

We address the errors with reference to claim 1. The Examiner rejects
claims 2, 4, 8, 9, and 11 only because they depend from claim 1.
Final Act. 10.

A first at-issue claim limitation recites "receiving, by the server
computer associated with the interconnectivity hub, the wallet request."
Id. at 11. The Examiner finds "this step is silent as to what sends the request

to the server." *Id.* at 9. Appellant contends, and we agree, the Examiner fails to identify an ***uncertainty of claim scope*** that results from claim 1 not identifying the sender of the wallet request or, generally speaking, from a claim not identifying a sender of a message. Appeal Br. 19; Ans. 6–7; Final Act. 9. We add the Examiner seems to take issue with the claim's resulting breadth—not indefiniteness. *Application of Miller*, 441 F.2d 689, 693 (CCPA 1971) ("[W]e cannot agree . . . that the omission of the temperature . . . renders the claims indefinite. . . . [B]readth is not to be equated with indefiniteness.").

A second (and last) at-issue, claim 1 recites "receiving, by the server computer, an eligibility check request from the central trusted service manager computer" (CTSMC) and "sending, by the server computer, the eligibility check request to the secure element trusted service manager computer" (SETSMC).. The Examiner finds the limitation is indefinite because it requires the claimed server computer to relay the eligibility check request from the CTSMC to the SETSMC, whereas the Specification states the CTSMC forwards the request to the SETSMC. *See* Final Act. 9–10 (citing Spec. ¶ 123). Appellant contends, and the Examiner does not dispute, the Specification's paragraph 123 describes the CTSMC as generating the eligibility check request "to be" sent to the SETSMC and paragraph 126 then states the hub 130 of step 410 (e.g., the claimed server computer (*see supra* 12)) may receive this eligibility check request for forwarding to the SETSMC. Appeal Br. 19; Ans. 6–7; *see also* Appellant's Fig. 4, steps 409–10.

We agree with Appellant in view of the Specification's paragraph 125 disclosing the CTSMC sends the eligibility request and paragraph 126

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disclosing "the hub may receive the eligibility request . . . and may forward the eligibility request to the [SETSMC]." We add that the Examiner seems to take issue with the Specification's disclosure of the at-issue claim limitation—not an indefiniteness of claim scope. *See Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1340 (Fed. Cir. 2014) ("Appellants argue that the limitation is indefinite because the '320 patent [does not disclose] a unique identifier as required by the claims. Appellants' arguments appear to be based on the wrong legal standard, i.e., written description or enablement as opposed to indefiniteness.").

<p style="text-align:center">35 U.S.C. § 101, PATENT ELIGIBILITY</p>

We are persuaded of error in the § 101 rejection of claims 1, 2, 4, 8–13, 15, 19, and 20. We accordingly do not sustain the rejection.

The error occurs for each of claims 1, 2, 4, 8–13, 15, 19, and 20, which the Examiner addresses collectively (Final Act. 6–7; Ans. 4–6) aside from noting minor differences between the independent claims (1 and 12) (Final Act. 6). We address the errors with reference to claim 1.

The Examiner does not "take into consideration all the claim limitations and how those limitations interact and impact each other." October 2019 Patent Eligibility Guidance Update 12 ("Guidance Update") (available at https://www.uspto.gov/sites/default/files/documents/ peg_oct_2019_update.pdf); *see also* 84 Fed. Reg. 55942 (Oct. 18, 2019) (notifying the public of the Guidance Update). Rather, the Examiner summarily characterizes all claim features as mere "communications between financial institutions" (Ans. 4) and/or as "use [of] computer[s] as a tool" (*id.*) to perform those communications. *See also*, *generally*, *id.* at 3–5.

In doing so, the Examiner presents *only* three determinations. First, the Examiner characterizes the claimed method as "receiving a wallet request, determining an issuer, obtaining application data associated with the issuer and account identifier, determining a trusted a service manager from among a plurality of trusted service managers using a routing table[,] and providing application data for delivery." *Id.* at 4. Second, the Examiner finds the above steps fall within the Guidance's judicial-exception category of "certain methods of organizing human activity' . . . [because they] involve . . . steps for processing [a] wallet request and facilitat[ing] . . . communications between financial institutions." *Id.* (internal quotation marks, citation, and emphases omitted). Third, the Examiner finds the claimed method's "use of [a] server computer, mobile communication device[,] and trusted service manager computer… requires no more than a computer performing" the above steps. *Id.*

As Appellant argues, the Examiner's determinations do not account for the entirety of claim 1. Reply Br. 5–6. Rather, the determinations are akin to finding claim 1 *only* recites financial transactions and a hub that communicates those transactions. *Id.* at 3–4. Claim 1 also recites a combination of actions for provisioning application data to a mobile device and these actions are not shown to merely constitute a financial concept. *Id.*

These details cannot be summarily dismissed because each involves a financial institution and/or customary use of a computer. The claimed information and rules must be considered for their specificity. The need to do so is perhaps best reflected in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), which addresses a patent-eligible software implementation of an abstract idea (*id.* at 1307, 1316). *McRO*

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determined the at-issue claim overcame the underlying preemption concern of § 101 by applying a specific combination of data and rules ("a keyframe at a point that no phoneme is being pronounced") to the identified abstract idea (using "morph weights" to lip synchronize animation). *Id.* at 1306–07, 1314–15; *see also* Guidance, 84 Fed. Reg. at 53 n.19 ("*McRO*, 837 F.3d at 1313[,] recognizing that the court must look to the claim[] as an ordered combination . . . whether at step one or step two of the *Alice* test" (internal quotations marks and brackets omitted)). The Examiner has not addressed whether the claimed method constitutes a combination of information and rules sufficiently specific to "prevent broad preemption of all rules-based means" for implementing judicially-excepted subject matter (e.g., financial activity). *McRO,* 837 F.3d at 1315; *see also* Guidance Update at 11 ("The specificity of the claim limitations is relevant to the evaluation of several considerations."), 15 (examiner has an "initial burden . . . to explain why a claim . . . [is] ineligible for patenting . . . specifically").

In sum, the Examiner attempts to show claim 1 is *directed to an abstract idea without significantly more* by alleging that some claim steps involve financial activities and the claimed hardware uses "a computer as a tool" to perform those steps. Ans. 4; *see also generally id.* at 3–5. Such analysis lacks the requisite extent of examination.

35 U.S.C. § 103

We are unpersuaded of error in the § 103 rejections of claims 1, 2, 4, 8–13, 15, 19, and 20. We accordingly sustain these rejections.

Appellant presents all arguments with reference to only claim 1. Appeal Br. 20–21.[3] We select claim 1 as representative.

Appellant contends the Examiner erred by reading the claimed account identifier on Koh's application identifier of paragraph 99 because claim 1 recites "determining, by the server computer, an issuer associated with the account identifier" and Koh does not describe the application identifier as being used to determine an issuer. Appeal Br. 20; Reply Br. 11. We are unpersuaded because the argument is not commensurate with the at-issue claim scope. The claimed determining step does not require use of the account identifier to determine the issuer. The step, rather, only requires that the issuer is (1) determined by the server computer and (2) associated with the account identifier. Appellant does not dispute that Koh teaches these features.

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[3] Appellant contends: "[T]he Examiner **did not consider** the [claim] amendments filed on August 7, 2017 in the rejections under 35 U.S.C. 101 and 35 U.S.C. 103." Appeal Br. 13 (emphasis added). Appellant further contends that these "claims [as] filed on August 7, 2018, **which should have been examined,** recite numerous limitations that are not taught or suggested by the applied references." *Id.* at 21–22 (emphasis added). These contentions do not raise issues for appeal, but rather constitute a petitionable matter. Specifically, the Examiner's alleged failure to examine claim amendments is addressable by a petition to compel examination. *See Ex Parte Frye*, 94 USPQ2d 1072, 1077–78 (PTAB 2010) (precedential) ("Petitionable Matters" section); 37 C.F.R. § 1.181(a)(1) (petition from an examiner requirement); 37 C.F.R. § 1.104 (required "[n]ature of examination"). Furthermore, rather than refusing examination, the Examiner interprets at least some of the claim amendments as "intended use" limitations that accordingly lack patentable weight. Final Act. 4–5. Appellant does not address the argued claim amendments in light of these "intended use" interpretations. Appeal Br. 13, 21–22.

Appellant also contends the Examiner erred by finding Koh's paragraphs 63–69 teach or suggest the following claim limitations: "determining, by the server computer, the second protocol associated with the [SETSMC]" and "obtaining, by the server computer, a secure element key from the [SETSMC] . . . using the second protocol." Appeal Br. 20–21. Specifically, Appellant contends "paragraphs 63–69 of Koh . . . do not describe a 'protocol' associated with the [SETSMC] nor do they describe obtaining a 'key' using a 'protocol." *Id.* Appellant further contends the Examiner merely quotes Koh's paragraphs 64–65 in response to the above contentions and thereby categorically fails to address the arguments. Reply Br. 11–12; *see also* Ans. 8–9.

We are unpersuaded because the Examiner is clearly reading the claimed second protocol and secure element key respectively on Koh's CPLC (card product life cycle) information and key set. *See* Ans. 8–9. We discern as much for two reasons.

First, as shown in Koh's paragraph 63, the CPLC information is secure element (SE) information, e.g., SE "manufacturer information," that the server determines and then uses to communicate with the SE manufacturer or the like (i.e., with a SETSMC). Thus, the CPLC information teaches the second protocol of the claimed "determining, by the server computer, the second protocol associated with the [SETSMC]."

Second, as shown in Koh's quoted text of paragraphs 64–65, the CPLC information is used by the server to obtain an SE key set from the SE manufacturer or the like. Thus, the CPLC information and key set respectively teach the claimed second protocol and secure element key of

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"obtaining, by the server computer, a secure element key from the [SETSMC] . . . using the second protocol" as recited in claim 1.

Appellant does not dispute that Koh's above disclosures teach or suggest the at-issue limitations in the above manner—i.e., that Koh's CPLC information and key set respectively teach the claimed second protocol or secure element key.

OVERALL CONCLUSION

We affirm the Examiner's decision to reject claims 1, 2, 4, 8–13, 15, 19, and 20.[4]

DECISION SUMMARY

Claims Rejected	35 U.S.C.	Basis	Affirmed	Reversed
1, 2, 4, 8–13, 15, 19, 20	§ 101	Subject Matter Eligibility		1, 2, 4, 8–13, 15, 19, 20
1, 2, 4, 8, 9, 11	§ 112, ¶ 1	Written Description		1, 2, 4, 8, 9, 11
1, 2, 4, 8, 9, 11	§ 112, ¶ 2	Indefiniteness		1, 2, 4, 8, 9, 11
1, 10, 11, 12	§ 103(a)	Koh, Arvidsson	1, 10, 11, 12	
2, 4, 8, 9, 13, 15, 19, 20	§ 103(a)	Koh, Arvidsson, Ginter	2, 4, 8, 9, 13, 15, 19, 20	
Overall Outcome			**1, 2, 4, 8–13, 15, 19, 20**	

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[4] "The affirmance of the rejection of a claim on any of the grounds specified constitutes a general affirmance of the decision of the examiner on that claim." 37 C.F.R. § 41.50.

TIME PERIOD FOR RESPONSE

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

AFFIRMED