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| 16/021,946 | 06/28/2018 | Srini Rangaraj | 70481.2398US01 | 4304 |
| 132906 | 7590 | 09/01/2020 | EXAMINER | |
| Haynes & Boone, LLP (70481) 2323 Victory Ave. #700 Dallas, TX 75219 | | | PATEL, AMIT HEMANTKUMAR | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocketing@haynesboone.com

Office Action Summary

Application No.

16/021,946

Applicant(s)

Rangaraj, Srin

Examiner

AMIT PATEL

Art Unit

3696

AIA (FITF) Status

Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08/21/2020.

A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a) This action is **FINAL**.

2b) This action is non-final.

3) An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) Claim(s) 1-21 is/are pending in the application.

5a) Of the above claim(s) 10 is/are withdrawn from consideration.

6) Claim(s) _____ is/are allowed.

7) Claim(s) 1-9 and 11-21 is/are rejected.

8) Claim(s) _____ is/are objected to.

9) Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov**.

Application Papers

10) The specification is objected to by the Examiner.

11) The drawing(s) filed on 06/28/2018 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) All b) Some** c) None of the:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

3) Interview Summary (PTO-413)

Paper No(s)/Mail Date _____.

2) Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)

4) Other: _____.

Paper No(s)/Mail Date _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Continued Examination under 37 CFR §1.114

2. A request for continued examination under 37 CFR §1.114, including the fee set forth in 37 CFR §1.17(e), was filed on August 21, 2020 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR §1.114 and the fee set forth in 37 CFR §1.17(e) has been timely paid, the finality of the previous Office action dated May 26, 2020 has been withdrawn pursuant to 37 CFR §1.114 and the submission filed on August 21, 2020 has been entered. Claim 10 has been previously cancelled. Claims 1–2, 4, 6–7, 9, 11–12, 14, 16–17, and 20 have been amended. Thus, claims 1–9 and 11–21 are pending and rejected for the reasons set forth below.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

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.

4. Claims 1–9 and 11–21 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

In sum, claims 1–9 and 11–21 are rejected under 35 U.S.C. §101 because the claimed invention is directed to a judicial exception to patentability (i.e., a law of nature, a natural phenomenon, or an abstract idea) and do not include an inventive concept that is something “significantly more” than the judicial exception under the January 2019 patentable subject matter eligibility guidance (2019 PEG) analysis which follows.

Under the 2019 PEG step 1 analysis, it must first be determined whether the claims are directed to one of the four statutory categories of invention (i.e., process, machine, manufacture, or composition of matter). Applying step 1 of the analysis for patentable subject matter to the claims, it is determined that the claims are directed to the statutory category of a process (claims 11–19), a machine (claims 1–9 and 21), and a manufacture (claim 20), where the machine and manufacture are substantially directed to the subject matter of the process. (*See, e.g.*, MPEP §2106.03). Therefore, we proceed to step 2A, Prong 1.

Under the 2019 PEG step 2A, Prong 1 analysis, it must be determined whether the claims recite an abstract idea that falls within one or more designated categories of patent ineligible subject matter (i.e., organizing human activity, mathematical concepts, and mental processes) that amount to a judicial exception to patentability. Here, the claims recite the abstract idea of generating, storing, and sending to a user a random digital key associated with a user’s account number in order to facilitate a secure payment transaction by;

one or more, . . .;

a secure element; and

a, . . ., storing computer-executable instructions, that in response to

execution by the one or more, . . . , causes the, . . . , to perform operations comprising:

determining an account number corresponding to a payment instrument associated with a user account;

generating a unique digital token based on the account number, the unique digital token being usable for identifying the account number during a payment;

storing an association between the unique digital token and a payment identifier corresponding to the payment instrument in the secure element of the, . . . ;

deleting the account number from, . . . ;

transmitting, to an issuance, . . . , associated with an issuer of the payment instrument, an indication of the unique digital token being stored at the, . . . ;

subsequent to the transmitting, receiving instructions to initiate a payment transaction using the payment instrument associated with the user account;

based on the instructions, determining, by accessing the secure element of the, . . . , the association between the unique digital token and the payment identifier; and

transmitting the unique digital token to the issuance, . . . , for payment of the payment transaction, the transmitting of the unique digital token causing the issuance, . . . , to authorize payment using the account number corresponding to the payment instrument.

Here, the recited abstract idea falls within one or more of the three enumerated 2019 PEG categories of patent ineligible subject matter, to wit: certain methods of

organizing human activity, which includes fundamental economic principles or practices as well as commercial or legal interactions (e.g., generating, storing, and sending to a user a random digital key associated with a user's account number in order to facilitate a secure payment transaction).

Under the 2019 PEG step 2A, Prong 2 analysis, the identified abstract idea to which the claim is directed does not include limitations that integrate the abstract idea into a practical application, since the recited features of the abstract idea are being applied on a computer or computing device or via software programming that is simply being used as a tool ("apply it") to implement the abstract idea. (*See, e.g.*, MPEP §2106.05(f)). Therefore, the claim is directed to an abstract idea.

Under the 2019 PEG step 2B analysis, the additional elements are evaluated to determine whether they amount to something "significantly more" than the recited abstract idea. (i.e., an innovative concept). Here, the additional elements, such as: a "hardware processor," "memory," "mobile device," and "server," do not amount to an innovative concept since, as stated above in the step 2A, Prong 2 analysis, the claims are simply using the additional elements as a tool to carry out the abstract idea (i.e., "apply it") on a computer or computing device and/or via software programming. (*See, e.g.*, MPEP §2106.05(f)). The additional elements are specified at a high level of generality to simply implement the abstract idea and are not themselves being technologically improved. (*See, e.g.*, MPEP §2106.05 I.A.); (*see also*, paragraphs [00010], [00013], [00015], and [00057] of the specification).

The additional elements of the dependent claims merely refine and further limit the abstract idea of the independent claims and do not add any feature that is an

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“inventive concept” which cures the deficiencies of their respective parent claim under the 2019 PEG analysis. None of the dependent claims considered individually, including their respective limitations, include an “inventive concept” of some additional element or combination of elements sufficient to ensure that the claims in practice amount to something “significantly more” than patent-ineligible subject matter to which the claims are directed.

The elements of the instant process steps when taken in combination do not offer substantially more than the sum of the functions of the elements when each is taken alone. The claims as a whole, do not amount to significantly more than the abstract idea itself because the claims do not effect an improvement to another technology or technical field (*e.g.*, the field of computer coding technology is not being improved); the claims do not amount to an improvement to the functioning of an electronic device itself which implements the abstract idea (*e.g.*, the general purpose computer and/or the computer system which implements the process are not made more efficient or technologically improved); the claims do not perform a transformation or reduction of a particular article to a different state or thing (*i.e.*, the claims do not use the abstract idea in the claimed process to bring about a physical change. *See, e.g., Diamond v. Diehr*, 450 U.S. 175 (1981), where a physical change, and thus patentability, was imparted by the claimed process; contrast, *Parker v. Flook*, 437 U.S. 584 (1978), where a physical change, and thus patentability, was not imparted by the claimed process); and the claims do not move beyond a general link of the use of the abstract idea to a particular technological environment (*e.g.*, simply claiming the use of a computer and/or computer system to implement the abstract idea).

Response to Arguments

Applicant's arguments filed on July 24, 2020 have been fully considered. Applicant's arguments concerning the 35 U.S.C. §101 rejection of the claims, including supposed deficiencies in the rejection, are not persuasive. The basis for the previous rejection under 35 U.S.C. §101 is still operative, as is the precedential case law used in support of the rejection. Notwithstanding, the amended claims have been addressed with regard to the 35 U.S.C. §101 rejection discussed above, and considered under the 2019 Revised Patent Subject Matter Eligibility Guidance (2019 PEG). Applicant is directed to the above full Alice/Mayo analysis in view of the amended claims, including consideration of the USPTO Guidance as applied to those claims. The abstract idea has been restated herein in the 35 U.S.C. §101 rejection analysis in light Applicant's amendments to the limitations of the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMIT PATEL whose telephone number is (313) 446-4902. The examiner can normally be reached on Monday thru Thursday, 7:30 AM - 5:30 PM EST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Namrata Boveja can be reached on (571) 272-8105. The Examiner's fax number is (571) 273-6087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Amit Patel/
Examiner
Art Unit 3696

/JOSEPH W. KING/
Primary Examiner, Art Unit 3696

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A mobile device, comprising:
 - one or more hardware processors;
 - a data storage device;
 - a secure element; and
 - a non-transitory memory storing computer-executable instructions, that in response to execution by the one or more hardware processors, causes the mobile device to perform operations comprising:
 - determining an account number corresponding to a payment instrument associated with a user account;
 - generating a unique digital token by inputting the account number to a transformation function that outputs a hash based on the account number, the unique digital token being the hash and usable for identifying the account number during a payment through a reverse transformation function;
 - storing an association between the unique digital token and a payment identifier corresponding to the payment instrument in the secure element of the mobile device;
 - deleting the account number from the mobile device by identifying a memory address range of the data storage device that corresponds to a location where the account number is temporarily stored and overwriting the memory address range with randomly generated data that is different than the account number;
 - transmitting, to an issuance server associated with an issuer of the payment instrument, an indication of the unique digital token being stored at the mobile device;
 - subsequent to the transmitting, receiving instructions to initiate a payment transaction using the payment instrument associated with the user account;
 - based on the instructions, determining, by accessing the secure element of the mobile device, the association between the unique digital token and the payment identifier; and

transmitting the unique digital token to the issuance server for payment of the payment transaction, the transmitting of the unique digital token causing the issuance server to authorize payment using the account number corresponding to the payment instrument.

2. (Currently Amended) The mobile device of claim 1, wherein the transmitting the indication of the unique digital token being stored at the mobile device further comprises:

transmitting a device identifier associated with the mobile device to the issuance server, thereby causing the issuance server to derive the account number of the payment instrument from the unique digital token and to store an association between the device identifier, the unique digital token, and the account number.

3. (Previously Presented) The mobile device of claim 1, wherein the payment instrument corresponds to a credit card and the account number corresponds to a credit card number.

4. (Canceled)

5. (Currently Amended) The mobile device of claim [[4]]1, wherein the causing the issuance server to authorize payment comprises:

causing the issuance server to derive the account number based on the reverse transformation function.

6. (Previously Presented) The mobile device of claim 1, wherein the operations further comprise:

receiving, from the issuance server, a request to authorize a second device to store the unique digital token associated with the payment instrument; and
transmitting an authentication request to the second device.

7. (Previously Presented) The mobile device of claim 1, wherein the transmitting the unique digital token to the issuance server includes a device identifier

associated with the mobile device and causes the issuance server to derive the account number of the payment instrument from the unique digital token.

8. (Canceled)

9. (Previously Presented) The mobile device of claim 1, further comprising an image capture device, wherein the determining the account number comprises:
accessing an image of the payment instrument captured via the image capture device;
and
determining the account number based on the image of the payment instrument.

10. (Canceled)

11. (Currently Amended) A method, comprising:
determining, by a mobile device, an account number corresponding to a payment instrument associated with a user account;
generating, by the mobile device, a unique digital token by inputting the account number to a transformation function that outputs a hash based on the account number, the unique digital token being the hash and usable for identifying the account number during a payment through a reverse transformation function;
storing, by the mobile device, an association between the unique digital token and a payment identifier corresponding to the payment instrument in a secure element included in the mobile device;
deleting, by the mobile device, the account number from the mobile device by identifying a memory address range of a data storage device of the mobile device that corresponds to a location where the account number is temporarily stored and overwriting the memory address range with randomly generated data that is different than the account number;
transmitting, by the mobile device, to an issuance server associated with an issuer of the payment instrument, an indication of the unique digital token being stored at the mobile device;

subsequent to the transmitting, receiving, by the mobile device, instructions to initiate a payment transaction using the payment instrument associated with the user account;

based on the instructions, determining, by the mobile device accessing the secure element of the mobile device, the association between the unique digital token and the payment identifier; and

transmitting, by the mobile device, the unique digital token to the issuance server for payment of the payment transaction, the transmitting of the unique digital token causing the issuance server to authorize payment using the account number corresponding to the payment instrument.

12. (Previously Presented) The method of claim 11, wherein the transmitting the indication of the unique digital token being stored at the mobile device further comprises:

transmitting, from the mobile device to the issuance server, a device identifier associated with the mobile device, thereby causing the issuance server to derive the account number of the payment instrument from the unique digital token and to store an association between the device identifier, the unique digital token, and the account number.

13. (Original) The method of claim 11, wherein the payment instrument corresponds to a credit card and the account number corresponds to a credit card number.

14. (Canceled)

15. (Currently Amended) The method of claim ~~[[14]]~~11, wherein the causing the issuance server to authorize payment comprises:

causing the issuance server to derive the account number based on the transformation function.

16. (Previously Presented) The method of claim 11, further comprising:
receiving, by the mobile device and from the issuance server, a request to authorize a second device to store the unique digital token associated with the payment instrument; and

transmitting an authentication request to the second device.

17. (Previously Presented) The method of claim 11, wherein the transmitting the unique digital token to the issuance server includes a device identifier associated with the mobile device and causes the issuance server to derive the account number of the payment instrument from the unique digital token.

18. (Canceled)

19. (Previously Presented) The method of claim 11, further comprising:
accessing an image of the payment instrument captured via an image capture device installed on the mobile device; and
determining, by the mobile device, the account number based on the image of the payment instrument.

20. (Currently Amended) A non-transitory computer-readable medium storing computer-executable instructions, that in response to being executed by one or more hardware processors of a mobile device, causes the one or more hardware processors to perform operations comprising:
determining an account number corresponding to a payment instrument associated with a user account;
generating a unique digital token by inputting the account number to a transformation function that outputs a hash based on the account number, the unique digital token being the hash and usable for identifying the account number during a payment through a reverse transformation function;
storing an association between the unique digital token and a payment identifier corresponding to the payment instrument in a secure element included in the mobile device;
deleting the account number from the mobile device by identifying a memory address range of a data storage device of the mobile device that corresponds to a location where the account number is temporarily stored and overwriting the memory address range with randomly generated data that is different than the account number;

transmitting, to an issuance server associated with an issuer of the payment instrument, an indication of the unique digital token being stored at the mobile device; subsequent to the transmitting, receiving instructions to initiate a payment transaction using the payment instrument associated with the user account; based on the instructions, determining, by accessing the secure element, the association between the unique digital token and the payment identifier; and transmitting the unique digital token to the issuance server for payment of the payment transaction, the transmitting of the unique digital token causing the issuance server to authorize payment using the account number corresponding to the payment instrument.

21. (Previously Presented) The mobile device of claim 1, wherein the payment identifier comprises a logo associated with the issuance server.

22. (New) The mobile device of claim 1, wherein the transmitting the unique digital token to the issuance server for payment of the payment transaction is performed through a payment network.

23. (New) The method of claim 11, wherein the transmitting the unique digital token to the issuance server for payment of the payment transaction is performed through a payment network.

24. (New) The non-transitory computer-readable medium of claim 20, wherein the transmitting the unique digital token to the issuance server for payment of the payment transaction is performed through a payment network.

25. (New) The non-transitory computer-readable medium of claim 20, wherein the payment instrument corresponds to a credit card and the account number corresponds to a credit card number.

REMARKS

Claims 1-9 and 11-21 were pending in the present application and rejected. By the present amendment and response, claims 1, 2, 5, 11, 15, and 20 are amended, claims 4, 8, 14, and 18 are canceled, and claims 22-25 are added. Support for this amendment can be found throughout the Application including at least at paragraphs [0012]-[0014], [0022], and [0050]. No new matter is added. After entry of the present amendment and response, claims 1-3, 5-7, 9, 11-13, 15-17, and 19-25 will be pending. The rejections are respectfully traversed in light of the following remarks, and reconsideration is requested.

Summary of the Examiner Interview

Applicant's representative, Michael Feirstein (Reg. No. 75,948), had a telephonic interview with Examiner Patel and Primary Examiner King on November 19, 2020. During the interview, Applicant's representative and the Examiners discussed proposed claim amendments in view of the 35 U.S.C. § 101 rejections. During the interview, it was agreed that the present amendments overcome the § 101 rejections.

Applicant thanks the Examiners for conducting the interview and advancing prosecution. Accordingly, a Notice of Allowance is respectfully requested.

Rejections under 35 U.S.C. § 101

Claims 1-9 and 11-21 were rejected under 35 U.S.C. § 101 as the claimed invention was allegedly directed to certain methods of organizing human activity without significantly more.

As agreed to during the interview, the present amendments overcome the § 101 rejections. As such, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 101.

New Claims

By the present amendment and response, Applicant adds claims 22-25, which depend from and further limit independent claims 1, 11, and 20. Support for the added claims can be found throughout the application including at least at paragraphs [0014] and [0050].

Applicant submits that claims 22-25 are patentable over the presently cited references for at least the reasons discussed in reference to their base independent claims.

CONCLUSION

In view of the remarks set forth above, it is submitted that the application is now in condition for allowance. Authorization is given to charge any fees due or credit any overpayments in regard to this communication to deposit account 60-3156. If the Examiner has any questions or concerns, a telephone call to the undersigned at (949) 202-3067 is welcomed and encouraged.

Certification of Electronic Transmission

I hereby certify that this paper is being electronically transmitted to the U.S. Patent and Trademark Office on the date shown below.

/ Trang Nguyen/
Trang Nguyen

December 1, 2020
Date

Respectfully submitted,

/ Michael Feirstein/
Michael Feirstein
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