UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/975,003	12/18/2015	Craig Stuart	052873-0449	7741

78740	7590	03/06/2020

FOLEY & LARDNER
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

EXAMINER
ALLADIN, AMBREEN A

ART UNIT	PAPER NUMBER
3693	

NOTIFICATION DATE	DELIVERY MODE
03/06/2020	ELECTRONIC

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@foley.com

	Application No.	Applicant(s)
Office Action Summary	14/975,003	Stuart et al.
	Examiner	Art Unit	AIA (FITF) Status
	AMBREEN A ALLADIN	3693	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 01/23/2020.
  ☐ 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) _1-3,5-13,15-17 and 19-24_ is/are pending in the application.

  5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) _1-3,5-13,15-17 and 19-24_ 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 _____ 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)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
  Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1.   This action is in reply to Applicant's Request for Reconsideration dated January 23, 2020.

2.   **Claims 1-3, 5-13, 15-17 and 19-24** are currently pending and have been examined.

3.   **Claims 1, 5-10, 13, 15-17 and 19-24** have been amended.

4.   **Claims 4, 14 and 18** have been cancelled

Notice of Pre-AIA or AIA Status

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

Claim Rejections - 35 USC § 101

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.

6.   **Claims 1-3, 5-13, 15-17 and 19-24** are rejected under 35 U.S.C. § 101 because the claimed invention is directed to an abstract idea without significantly more.

Independent Claim 1 recites a financial institution computing system comprising a customer database to store customer information relating to a plurality of financial accounts; a tag database to store information relating to a plurality of tags; exchanging information over a network; instructions executable to receive a transaction request relating to an order of goods and at least one tag from a seller; approve the seller for a total amount of a line of credit for the order of the goods; generate a transaction schedule based on the transaction request and customer information in the customer database and store information relating to the transaction request, the at least one tag and the transaction schedule in the tag database and receive tag data corresponding to a plurality of physical movements of some or all goods of the order, the tag data comprising GPS data; determine a plurality of physical locations of the some or all goods of the order of goods using the GPS data and perform a plurality of transaction pursuant to the transaction schedule based the determined plurality of physical locations; wherein the performance of the plurality of transactions includes extending the line of credit to the seller in a plurality of increments that are based on the determined plurality of physical locations,

the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is less than or equal to the total approved amount of the line of credit, wherein the first increment is extended in response to a first physical movement indicated by the tag data and the second increment is extended in response to a second physical movement indicated by the tag data.

Independent Claim 13 recites a method comprising receiving a transaction request relating to an order of goods and at least one tag from a seller; approving a seller associated with the seller for a total amount of a line of credit for the order of goods; generating a transaction schedule based on the transaction request and customer information in a customer database and storing information relating to the transaction request, the at least one tag and the transaction schedule in a tag database; and receiving tag data corresponding to a plurality of physical movements of some or all goods of the order of goods, the tag data comprising GPS data; determining, a plurality of physical locations of some or all of the goods of the order of goods using the GPS data, and performing a plurality transactions pursuant to the transaction schedule based on the determined plurality of physical locations, wherein the performance of the plurality of transactions includes extending the line of credit to the seller in a plurality of increments that are based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is less than or equal to the total approved amount of the line of credit, wherein the first increment is extended in response to a first physical movement indicated by the tag data and the second increment is extended in response to a second physical movement indicated by the tag data.

Independent Claim 17 recites substantially similar abstract limitations as those seen in Claims 1 and 13 as to a non-transitory computer readable medium claim.

Independent Claim 21 recites a system comprising a customer database configured to retrievably store information relating to a plurality of financial accounts including at least a financial account of a seller and a buyer; a tag database configured to retrievably store information related to a plurality of tags associated with a plurality of orders; a network interface circuit to facilitate exchanging information over a network; instructions executable to provide a user interface for each of the seller and the buyer that allows each of a seller and buyer to define terms for a transaction request and corresponding transaction schedule relating to an order of goods and at least one tag; receive terms for

the transaction request and corresponding schedule from the seller and buyer; approve the seller for a

total amount of a line of credit for the order of goods; approve the transaction request and transaction

schedule based on customer information relating to each of the seller and buyer in the customer

database and store information relating to the transaction request, the transaction schedule and the at

least one tag in the tag database; receive tag data corresponding to a plurality of physical movements of

the order of the goods and update the user interface to allow each of the seller and buyer to view

information relating to the location of the order of goods, the tag data comprising GPS data; determine

a plurality of physical locations of the order of goods using the GPS data; perform one or more

transactions pursuant to the transaction schedule based on the determined plurality of physical

locations, the one or more transactions including extending the line of credit to the seller in one or more

increments such that an amount of the line of credit extended to the seller is at least initially less than

the total approved amount of the line of credit and receive tag data indicating that the order of goods

has arrived at the buyer and perform a final payment transaction from the financial account of the buyer

to the financial account of the seller.

The series of steps recited in the Independent Claims above describe defining terms and

performance of transactions for orders of goods tracked by tags corresponding to physical movement of

the goods which are commercial or legal interactions and/or managing relationships or interactions

between people and are thus grouped as certain methods of organizing human activity which is an

abstract idea.

ANALYSIS:

STEP 1:

Does the claimed invention fall within one of the four statutory categories of invention (process,
machine, manufacture or composition matter?

Yes, the claimed invention discloses systems, a method and a computer readable medium claim

of defining terms and performance of transactions for orders of goods tracked by tags corresponding to

physical movement of the goods via a series of steps.

STEP 2A:

***Prong One: Does the Claim Recite A Judicial Exception (An Abstract Idea, Law of Nature or Natural
Phenomenon)?*** (If Yes, Proceed to Prong Two, If No, the claim is not directed to a judicial exception and
qualifies as subject matter patent eligible material)

As recited above, the series of steps recited in the Independent Claims above describe defining terms and performance of transactions for orders of goods tracked by tags corresponding to physical movement of the goods which are commercial or legal interactions and/or managing relationships or interactions between people and are thus grouped as certain methods of organizing human activity which is an abstract idea.

The claims recite a customer database, a tag database, a GPS transceiver, a computing device, a network interface circuit, a financial institution computing system, a network, a transaction circuit including at least one processor and a memory, a seller computing system, a buyer computing system and a user interface for each of the seller and buyer. The independent claims are applying generic computer components to the recited abstract limitations. The tag database, customer database, network interface circuit and user interfaces appear to be software. (*Step 2A – Prong 1: Yes, the claims are abstract*)

Prong Two: Does the Claim Recite Additional Elements That Integrate The Judicial Exception Into A Practical Application of the Exception? (If Yes, the claim is not directed to a judicial exception and qualifies as subject matter patent eligible material. If No, Proceed to Step 2B)

The claims do not include additional elements that integrate the judicial exception into a practical application of the exception because the claims do not provide improvements to another technology or technical field, improvements to the functioning of the computer itself, are not applying or using a judicial exception to effect a particular treatment or prophylaxis for a disease or medical condition, are not applying the judicial exception with, or by use of a particular machine, are not effecting a transformation or reduction of a particular article to a different state or thing, and are not applying the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment.

In particular, the claims only recite a computing device, a transaction circuit including a processor and a memory, a respective buyer and seller computing system, a GPS transceiver and a financial institution computing system which are recited at a high level of generality (i.e., as a generic processor performing generic computer functions) such that it amounts to no more than mere instructions to apply the exception using generic computer components. Accordingly, these additional elements, when considered separately and as an ordered combination, do not integrate the abstract idea into a practical application because they do not impose any meaningful limits on practicing the abstract idea. Therefore, Claims 1, 13, 17 and 21 are directed to an abstract idea without a practical

application. (*Step 2A – Prong 2: No, the additional claimed elements are not integrated into a practical application*)

STEP 2B: If there is an exception, determine if the claim as a whole recites significantly more than the judicial exception itself.

The courts have recognized the following computer functions as well-understood, routine, and conventional functions when they are claimed in a merely generic manner (*e.g.,* at a high level of generality) or as insignificant extra-solution activity: i) receiving or transmitting data over a network, *e.g.,* using the Internet to gather data, *Symantec,* 838 F.3d at 1321, 120 USPQ2d at 1362 (utilizing an intermediary computer to forward information); *TLI Communications LLC v. AV Auto. LLC,* 823 F.3d 607, 610, 118 USPQ2d 1744, 1745 (Fed. Cir. 2016) (using a telephone for image transmission); *OIP Techs., Inc., v. Amazon.com, Inc.,* 788 F.3d 1359, 1363, 115 USPQ2d 1090, 1093 (Fed. Cir. 2015) (sending messages over a network); *buySAFE, Inc. v. Google, Inc.,* 765 F.3d 1350, 1355, 112 USPQ2d 1093, 1096 (Fed. Cir. 2014) (computer receives and sends information over a network); but see *DDR Holdings, LLC v. Hotels.com, L.P.,* 773 F.3d 1245, 1258, 113 USPQ2d 1097, 1106 (Fed. Cir. 2014) ("Unlike the claims in *Ultramercial,* the claims at issue here specify **how** interactions with the Internet are manipulated to yield a desired result--a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink." (emphasis added)); ii) performing repetitive calculations, *Flook,* 437 U.S. at 594, 198 USPQ2d at 199 (recomputing or readjusting alarm limit values); *Bancorp Services v. Sun Life,* 687 F.3d 1266, 1278, 103 USPQ2d 1425, 1433 (Fed. Cir. 2012) ("The computer required by some of *Bancorp*'s claims is employed only for its most basic function, the performance of repetitive calculations, and as such does not impose meaningful limits on the scope of those claims."); iii) electronic recordkeeping, *Alice Corp.,* 134 S. Ct. at 2359, 110 USPQ2d at 1984 (creating and maintaining "shadow accounts"); *Ultramercial,* 772 F.3d at 716, 112 USPQ2d at 1755 (updating an activity log); iv) storing and retrieving information in memory, *Versata Dev. Group, Inc. v. SAP Am., Inc.,* 793 F.3d 1306, 1334, 115 USPQ2d 1681, 1701 (Fed. Cir. 2015); *OIP Techs.,* 788 F.3d at 1363, 115 USPQ2d at 1092-93; v) electronically scanning or extracting data from a physical document, *Content Extraction and Transmission, LLC v. Wells Fargo Bank,* 776 F.3d 1343, 1348, 113 USPQ2d 1354, 1358 (Fed. Cir. 2014) (optical character recognition); and vi) a web browser's back and forward button functionality, *Internet Patent Corp. v. Active Network, Inc.,* 790 F.3d 1343, 1348, 115 USPQ2d 1414, 1418 (Fed. Cir. 2015). (MPEP §2106.05(d)(II))

This listing is not meant to imply that all computer functions are well-understood, routine, conventional activities, or that a claim reciting a generic computer component performing a generic computer function is necessarily ineligible. Courts have held computer-implemented processes not to be significantly more than an abstract idea (and thus ineligible) where the claim as a whole amounts to nothing more than generic computer functions merely used to implement an abstract idea, such as an idea that could be done by a human analog (i.e., by hand or by merely thinking). On the other hand, courts have held computer-implemented processes to be significantly more than an abstract idea (and thus eligible), where generic computer components are able in combination to perform functions that are not merely generic. (MPEP §2106.05(d)(II) – emphasis added)

Below are examples of other types of activity that the courts have found to be well-understood, routine, conventional activity when they are claimed in a merely generic manner (*e.g.,* at a high level of generality) or as insignificant extra-solution activity: recording a customer's order, *Apple, Inc. v. Ameranth, Inc.,* 842 F.3d 1229, 1244, 120 USPQ2d 1844, 1856 (Fed. Cir. 2016); shuffling and dealing a standard deck of cards, *In re Smith,* 815 F.3d 816, 819, 118 USPQ2d 1245, 1247 (Fed. Cir. 2016); restricting public access to media by requiring a consumer to view an advertisement, *Ultramercial, Inc. v. Hulu, LLC,* 772 F.3d 709, 716-17, 112 USPQ2d 1750, 1755-56 (Fed. Cir. 2014); identifying undeliverable mail items, decoding data on those mail items, and creating output data, *Return Mail, Inc. v. U.S. Postal Service,* -- F.3d --, -- USPQ2d --, slip op. at 32 (Fed. Cir. August 28, 2017); presenting offers and gathering statistics, *OIP Techs.,* 788 F.3d at 1362-63, 115 USPQ2d at 1092-93; determining an estimated outcome and setting a price, *OIP Techs.,* 788 F.3d at 1362-63, 115 USPQ2d at 1092-93; and arranging a hierarchy of groups, sorting information, eliminating less restrictive pricing information and determining the price, *Versata Dev. Group, Inc. v. SAP Am., Inc.,* 793 F.3d 1306, 1331, 115 USPQ2d 1681, 1699 (Fed. Cir. 2015) (MPEP 2106.05(d))

The claims are directed to an abstract idea with additional generic computer elements that do not add meaningful limitations to the abstract idea because they require no more than a generic computer to perform generic computer functions that are well-understood, routine, and conventional activities previously known in the industry.

For the next step of the analysis, it must be determined whether the limitations present in the claims represent a patent-eligible application of the abstract idea. A claim directed to a judicial exception must be analyzed to determine whether the elements of the claim, considered both individually and as an ordered combination are sufficient to ensure that the claim as a whole amounts to significantly more than the exception itself.

For the role of a computer in a computer implemented invention to be deemed meaningful in the context of this analysis, it must involve more than performance of "well-understood, routine, [and] conventional activities previously known to the industry." Further, "the mere recitation of a generic computer cannot transform a patent ineligible abstract idea into a patent-eligible invention."

Applicant's specification discloses the following:

> "The financial institution computing system 108 includes network interface circuit 205, a customer database 206, a tag database 208, and a transaction circuit 210. The network interface circuit 205 allows the financial institution computing system 108 to exchange information over the network 202." (See Applicant Specification paragraph 20)

> "The transaction circuit 210 is structured to enable various tracking-based transactions at the financial institution computing system 108. As used herein, the term "circuit" may include hardware structured to execute the functions as described. In some embodiments, each respective "circuit" may include software for configuring the hardware to execute the functions described herein. The circuit may be embodied as one or more circuitry components including, but not limited to, processing circuitry, storage media, network interfaces, peripheral devices, input devices, output devices, sensors, etc. In some embodiments, a circuit may take the form of one or more analog circuits, electronic circuits (e.g., integrated circuits (IC), discrete circuits, system on a chip (SOCs) circuits, etc.), telecommunication circuit, hybrid circuit, and any other type of "circuit". In this regard, the "circuit" may include any type of component for accomplishing or facilitating achievement of the operations described herein. For example, a circuit as described herein may include one or more transistors, logic gates (e.g., NAND, AND, NOR, OR, XOR, NOT, XNOR, etc.), resistors, multiplexers, registers, capacitors, inductors, diodes, wiring, and so on)." (See Applicant Specification paragraph 22)

> "A given "circuit" may also include one or more processors communicatively coupled to a memory. In this regard, the one or more processors may execute instructions stored in memory or may execute instructions otherwise accessible to the one or more processors. In some embodiments, the one or more processors may be embodied in various ways. The one or more processors may be constructed in a manner sufficient to perform at least the operations described herein. In some embodiments, the one or more processors may be shared by multiple circuits (e.g., circuit A and circuit B) may comprise or otherwise share the same processor which in some example embodiments, may execute instructions stored, or otherwise accessed, via different areas of memory). Alternatively or additionally, the one or more processors may be structured to perform or otherwise execute independent of one or more co-processors. In other example embodiments, two or more processors may be coupled via a bus to enable independent, parallel, pipelined, or multi-threaded instruction execution. Each processor may be implemented as one or more general-purpose processors, application specific integrated circuits (ASICs), field programmable gate arrays (FPGAs), digital signal processors (DSPs), or other suitable electronic data processing components structured to execute instructions provided by memory. The one or more processors may take the form of a single core processor, multi-core processor (e.g., a dual core processor, triple core processor, quad core processor, etc.), microprocessor, etc. In some embodiments, the one or more processors may be external to the apparatus, for example the one or more processors may be a remote processor (e.g., a cloud based processor). Alternatively or additionally, the one or more

processors may be internal and/or local to the apparatus." (See Applicant Specification paragraph 23)

"Each memory device discussed herein may include non-transient volatile storage media, non-volatile storage media, non-transitory storage media (e.g., one or more volatile and/or non-volatile memories), etc. In some embodiments, the non-volatile media may take the form of ROM, flash memory (e.g., flash memory such as NAND, 3D NAND, NOR, 3D NOR, etc.), EEPROM, MRAM, magnetic storage, hard discs, optical discs, etc. In other embodiments, the volatile storage media may take the form of RAM, TRAM, ZRAM, etc. Each respective memory may be operable to maintain or otherwise store information relating to the operations performed by one or more associated circuits, including processor instructions and related data (e.g., database components, object code components, script components, etc.), in accordance with the example embodiments described herein." (See Applicant Specification paragraph 24)

"Based on the operations described herein with respect to each circuit, a given circuit may be further communicatively coupled to one or more other components, for example other circuits, input devices (e.g., devices providing incoming data to be processed by the circuit), output devices (e.g., devices receiving and acting upon data processed by the circuit), or intermediary devices (e.g., routing data to and from other components). In addition, a given circuit or components thereof may be disposed locally (e.g., as part of a local server, a local computing system, etc.) or remotely (e.g., as part of a remote server such as a cloud based server). To that end, a "circuit" as described herein may include components that are distributed across one or more locations." (See Applicant Specification paragraph 25)

"As noted above, embodiments within the scope of the present invention include program products comprising non-transitory machine-readable media for carrying or having machine-executable instructions or data structures stored thereon. Such machine-readable media may be any available media that may be accessed by a general purpose or special purpose computer or other machine with a processor. By way of example, such machine-readable media may comprise RAM, ROM, EPROM, EEPROM, CD-ROM or other optical disk storage, magnetic disk storage or other magnetic storage devices, or any other medium which may be used to carry or store desired program code in the form of machine-executable instructions or data structures and which may be accessed by a general purpose or special purpose computer or other machine with a processor. Thus, any such a connection is properly termed a machine-readable medium. Combinations of the above are also included within the scope of machine-readable media. Machine-executable instructions comprise, for example, instructions and data which cause a general purpose computer, special purpose computer, or a special purpose processing machines to perform a certain function of group of functions." (See Applicant Specification paragraph 57)

"Embodiments in the present disclosure have been described in the general context of method steps which may be implemented in one embodiments by a program product including machine-executable instructions, such as program code, for example, in the form of program modules executed by machines in networked environments. Generally, program modules include routines, programs, objects, components, data structures, etc. that perform particular tasks or implement particular abstract data types. Machine-executable instructions, associated data structures, and program modules represent examples of program code for executing steps of the methods disclosed herein. The particular sequence of such executable instructions or

associated data structures represent examples of corresponding acts for implementing the functions described in such steps." (See Applicant Specification paragraph 58)

"As previously indicated, embodiments in the present disclosure may be practiced in a networked environment using logical connections to one or more remote computers having processors. Those skilled in the art will appreciate that such network computing environments may encompass many types of computers, including personal computers, hand-held devices, multi-processor systems, microprocessor-based or programmable consumer electronics, network PCs, minicomputers, mainframe computers, and so on. Embodiments in the disclosure may also be practiced in distributed computing environments where tasks are performed by local and remote processing devices that are linked (either by hardwired links, wireless links, or by a combination of hardwired or wireless links) through a communications network. In a distributed computing environment, program modules may be located in both local and remote memory storage devices." (See Applicant Specification paragraph 59)

"An exemplary system for implementing the overall system or portions of the disclosure might include one or more computers including a processor, a system memory or database, and a system bus that couples various system components including the system memory to the processor. The database or system memory may include read only memory (ROM) and random access memory (RAM). The database may also include a magnetic hard disk drive from reading from and writing to a magnetic hard disk, a magnetic disk drive for reading from or writing to a removable magnetic disk, and an optical disk drive for reading from or writing to a removable optical disk such as a CD ROM or other optical media. The drives and their associated machine-readable media provide non-volatile storage of machine-executable instructions, data structures, program modules and other data for the computer. User interfaces, as described herein, may include a computer with a monitor, a keyboard, a keypad, a mouse, a joystick or other input devices performing a similar function." (See Applicant Specification paragraph 60)

Generic computer components recited as performing generic computer functions that are well-understood, routine and conventional activities amount to no more than implementing the abstract idea with a computerized system.

Looking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. The collective functions appear to be implemented using conventional computer systemization.

The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception. Upon reconsideration of the indicia noted under Step 2A in concert with the Step 2B considerations, the additional claim element(s) amounts to no more than mere instructions to apply the exception using generic computer components. The same analysis applies in Step 2B, i.e., mere instructions to apply an exception using a generic computer component cannot integrate a judicial exception into a practical application at Step 2A or provide an inventive

concept in Step 2B. The claim does not provide an inventive concept significantly more than the abstract idea.

Accordingly, these additional elements, when considered separately and as an ordered combination, do not integrate the abstract idea into a practical application because they do not impose any meaningful limits on practicing the abstract idea.

The independent claims 1, 13, 17 and 21 are not patent eligible. (St*ep 2B: NO. The claims do not provide significantly more*)

Dependent Claims 2-3, 5-12, 15-16, 19-20 and 22-24 further define the abstract ideas that are presented in the respective **Independent Claims 1, 13, 17 and 21** and are further grouped as certain methods of organizing human activity and are abstract for the same reasons and basis as presented above. No additional hardware components other than those found in the respective independent claims is recited, thus it is presumed that the claims are further utilizing the same generic systemization as presented above. The dependent claims do not include any additional elements that integrate the abstract idea into a practical application of the exception or are sufficient to amount to significantly more than the judicial exception when considered both individually and as an ordered combination. Therefore the dependent claims are also directed to an abstract idea.

Thus, **Claims 1-3, 5-13, 15-17 and 19-24** are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7.   **Claims 21-24** are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claims 21-24 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 21 recites in part "perform one or more transactions pursuant to the transaction schedule based on the determined plurality of physical locations, the one or more transactions including extending the line of credit to the seller in one or more increments such that an amount of the line of credit extended to the seller is at least initially less than the total approved amount of the line of credit".

As presented in the claims, it is unclear what Applicant is intending to claim. The step of perform[ing] one or more transactions is met by performance of one transaction. It is unclear if Applicant is attempting to claim more than one transaction. Is Applicant intending to recite that the one transaction is a plurality of transactions? If so, then the language does not recite a claim commensurate in scope with that intention. As currently claimed, the inclusion of extending a line of credit is a transaction that satisfies the limitation.

Regarding Claims 23-24, these claims are recited in a manner that fails to particularly point out and distinctly claim the subject matter presented.

Each of the **dependent claims 23-24** that are dependent on Claim 21 recite in part "...to perform a plurality of transactions..." and define other transactions that are in addition to the "one or more transactions" recited in the independent claim thus running afoul of 112(d) as seen below. Examiner suggests that Applicant clarify the scope of what is sought to be claimed. Is Applicant attempting to claim multiple transactions? If so, the claim scope of independent **Claim 21** must require multiple transactions and not be able to be fulfilled by only one transaction as is the case currently.

The following is a quotation of 35 U.S.C. 112(d):

(d) REFERENCE IN DEPENDENT FORMS.—Subject to subsection (e), a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

The following is a quotation of pre-AIA 35 U.S.C. 112, fourth paragraph:

Subject to the following paragraph [i.e., the fifth paragraph of pre-AIA 35 U.S.C. 112], a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

8.   **Claims 23-24** are rejected under 35 U.S.C. 112(d) or pre-AIA 35 U.S.C. 112, 4th paragraph, as being of improper dependent form for failing to further limit the subject matter of the claim upon which it depends, or for failing to include all the limitations of the claim upon which it depends.

Dependent Claims 23-24 both recite in part "...the processor to perform a plurality of transactions..."

The claims are broader in scope than the claim from which it depends. The limitations of Claim **21** can be met by one transaction that is defined as extending a line of credit to the seller in increments.

Claim 23 recites a plurality of transactions and includes within it providing insurance coverage – which is broader than the claim scope in **Claim 21** by requiring multiple transactions. **Claim 24** is also broader than the claim scope in **Claim 21** as it requires a plurality of payment transactions as opposed to the claim language in the independent claim that already has a transaction that fulfills the "one or more" language.

Applicant may cancel the claim(s), amend the claim(s) to place the claim(s) in proper dependent form, rewrite the claim(s) in independent form, or present a sufficient showing that the dependent claim(s) complies with the statutory requirements.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or
nonobviousness.

9.   **Claims 1-6, 9-14, 16-18, 20-22 and 24** are rejected under 35 U.S.C. 103 as being unpatentable
over Nichols et al. (US PG Pub. 2015/0149352) ("Nichols") in view of Cova et al. (US PG Pub.
2012/0303498) and Arnold et al. (US PG Pub. 2007/0192216) ("Arnold")

Regarding Claim 1, Nichols discloses the following:
A financial institution computing system, the system comprising:

- a customer database (*tracking database)* configured to retrievably store customer information
  relating to a plurality of financial accounts; (See Nichols paragraphs 33-35, 38-39, 43, 47-48 and
  Figs 3-4)

- a tag database (*tracking database)* configured to retrievably store information relating to a
  plurality of tags (*tags),* wherein each tag comprises a Global Positioning System ("GPS")
  transceiver located at a physical location of one or more goods of an order of goods; (See
  Nichols paragraphs 32-35, 38-39, 42-45, Figs. 3-4)

- a network interface circuit (*tracking interface)* configured to facilitate the financial institution
  computing system in exchanging information over a network; and (See Nichols paragraphs 33,
  36-38, 43-45)

- a transaction circuit (*tracking controller),* including at least one processor and a memory storing
  instructions executable by the processor to: (See Nichols paragraphs 23-24, 33-34, Figure 3)
  - o   receive a transaction request relating to an order of goods and at least one tag from a
    seller computing system over the network; (See Nichols paragraphs 35-38, 41-45)
  - o   approve the seller for a total amount of a line of credit for the order of goods;
  - o   generate a transaction schedule based on the transaction request and customer
    information in the customer database, and store information relating to the transaction
    request, the at least one tag, and the transaction schedule in the tag database; and (See
    Nichols paragraphs 41-47 – *one or more parties in the physical supply chain are allowed
    control to create and modify rules for a transaction as desired and may be parties to an*

agreement where the financial institution may provide a structured procedure and/or interface for allowing the party or parties to establish and control the rules)

- receive tag data corresponding to a plurality physical movements of some or all goods of the order of goods over the network, the tag data comprising GPS data; (See Nichols paragraphs 41-45 and 46-51 and Fig 5)

- determine a plurality of physical locations of the some or all goods of the order of goods using the GPS data; and

- perform a plurality of transactions pursuant to the transaction schedule based on the determined plurality of physical locations; (See Nichols paragraphs 41-45 and 46-51 and Fig 5)

- wherein the performance of the plurality of transactions includes extending the line of credit to the seller in a plurality of increments that are based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is less than or equal to the total approved amount of the line of credit, wherein the first increment is extended in response to a first physical movement indicated by the tag data and the second increment is extended in response to a second physical movement indicated by the tag data. (See Nichols paragraphs 12, 38-39, 44-49 – *in an embodiment, the rules are governed by a contract or one or more agreements that allow parties to control the rules that give rise to specific financial transactions or other actions in response thereto including extending a line of credit according to rules, for example, the rules may specify that funds are to be transferred from a first particular party to a second particular party responsive to the notification of a shipment or arrival of the goods from or to a specified point on the physical supply chain)*

Nichols discloses her invention as to a method for processing a transaction that includes receiving a notification of a change in status of physical goods or other event in a physical supply chain and automatically transferring funds in response to the notification.   (See Nichols Abstract) In one aspect, the funds that are transferred pursuant to a pre-existing agreement between the party and a second party involved in the transfer represent a portion of an agreed upon payment for sale of physical

goods and in this instance one or more additional notifications may be received for one or more additional changes in status of the goods or other events in the physical supply chain and additionally portions of the payment are transferred in response to each additional notification. (See Nichols paragraphs 10-11)

In another aspect, a method for processing a transaction includes establishing a relationship with a party and providing the party control to create a rule for automatic transfer of funds in response to giving a notification of a specified change in status of goods or other event in a physical supply chain. (See Nichols paragraph 12) *The funds transferred are owned or otherwise controlled by the party, such as money in an account or a credit line granted to the party.* (See Nichols paragraph 12 – *emphasis added)*

In furtherance of a financial transaction, such as transferring funds between parties, extending a credit line, etc., in response to being notified of an event occurring in the physical supply chain, rules or other terms may be established to govern which specific events in the physical supply chain give rise to specific financial transactions or other actions to be performed in response thereto. (See Nichols paragraph 45) In an example, the rules may specify that funds are to be transferred from a first particular party to a second particular party responsive to notification of a shipment or arrival of the goods from or to a specified point on the physical supply chain. (See Nichols paragraph 45) *The rules may require that a percentage of the payment be transferred immediately and the rest of the payment be delayed for a specific time where the parties are allowed to control and create and modify rules for a transaction as desired.* (See Nichols paragraph 45 – *emphasis added*) In one embodiment, the rules are governed by a contract or other agreement negotiated between one or more of the involved parties, for example, a party may be permitted to select from a limited list of different events that will trigger transfer of funds. (See Nichols paragraph 45) Nichols also discloses that a wide variety of different events and corresponding actions may be provided for in the rules and the nature of such events and actions may not be limited. (See Nichols paragraph 46) *For example, the rules may be stored and correlated with parties, events, actions, etc., in a "rules based database." As known in the art, a rules based database can define dynamic rules that are interpreted in real-time according to a state of events, such as the events occurring in the physical supply chain. This information can be organized based on typical or common agreement terms, for example, duration, movement, transfer, staged or termed events, etc. The structure of the database may be based on agreement type, market segment, client identity, etc.* (See Nichols paragraph 47 – *emphasis added*)

In one embodiment, a financial transaction may include a payment to a recipient for a sale of goods and is configured to be processed in several portions or steps, as multiple events occur with respect to a single unit of goods along the physical supply chain.   (See Nichols paragraph 48)

A first event in the physical supply chain occurs at step 502 such as a shipment or delivery of goods from one point to another in the physical supply chain 400 as shown in FIG. 4. (See Nichols paragraph 49) In an embodiment, the rules specify that a partial payment is to be made upon receiving notification of the first event occurring. Accordingly, once the notification is received, the financial institution 407 transfers a first portion of the payment to the recipient, according to the established rules, at step 504. (See Nichols paragraph 49) In this embodiment, the transfer of the first portion of the payment is performed automatically upon receiving the notification. (See Nichols paragraph 49) The occurrences of subsequent specified events in the physical supply chain are processed similarly to steps 502-504, through notification and transmission of another portion of the payment. (See Nichols paragraph 49) While the process in FIG. 5 described thus far may be used for a financial transaction involving only a single full payment, in this particular embodiment, it will be shown how the payment can be transferred in at least two portions, in response to at least two events in the physical supply chain. (See Nichols paragraph 49 and Figure 5)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention by integrating two component claim elements contained in the claims (*the customer database and the tag database)* into one integrated claim element (*the tracking database of Nichols)* wherein each component claim element continues to serve the same function. In the integration, each component claim element, would merely have performed the same function as it did previously, and one of ordinary skill in the art at the time the invention was made would have recognized that the results of the integration were predictable. See MPEP §2144.04 (VI)(B)

It would have been further obvious to one of ordinary skill in the art at the time of the invention in view of the disclosure of Nichols that in furtherance of a financial transaction such as extending a credit line in response to being notified of an event occurring in the physical supply chain and noting that the rules governing transactions may be specified by the parties where the parties are allowed to control, create and modify rules for a transaction as desired and that payments can be transferred in at least two portions in response to at least two events in the physical supply chain that the parties could specify how much of a first and second amount of a line of credit as related to a maximum was received by the seller in response to notification of physical movement of goods in order to allow the parties to not be limited in how payment transactions are structured.

While Nichols discloses the invention as claimed, it does not fully disclose that the tag data specifically comprises GPS data, though Nichols does track locations along the physical supply chain. Further, while Nichols discloses extending a line of credit in response to events in the physical supply chain including notification of a shipment or arrival of goods from or to a specified point on the supply chain, it is not squarely taught that seller was approved for a total amount of a line of credit for the order of goods and that the line of credit is extended incrementally to the total approved amount of the line of credit for the order of goods.

Cova discloses his invention as to techniques for monitoring and tracking assets and providing notifications to users are disclosed. (See Cova Abstract) In one aspect, a request to track an asset and enterprise data describing the asset are received, a tag is selected to associate with the asset, and event notification is received from the tag, and a user notification is generated from the event notification and the enterprise data. (See Cova Abstract)

In particular, Cova discloses that the buyer or seller sends a request to the tag provider requesting tracking of the shipment of the asset and the tag provider arranges for a tag to be sent from the tag pool to the location from where the asset is being shipped. (See Cova paragraph 20) Each tag in the tag pool is a tracking device that can be used to ship an asset and the tag can be affixed or coupled to the asset at the origin location and an example tag is a GPS Location + Security + Environmental tag. (See Cova paragraph 20)

It would have been obvious to one of ordinary skill in the art to modify the method of processing a transaction that includes receiving a notification of a change in status of physical goods or other event in a physical supply chain using RFID tags as disclosed by Nichols with the particular type of tag comprising a GPS location tag as taught by Cova in order to enhance the tracking ability of the tags used to track packages.

While Nichols in view of Cova discloses the invention as claimed and that the line of credit is extended based on increments based on physical location, they do not squarely disclose that the seller has first been approved from a total amount for a line of credit for an order of goods.

Arnold discloses his invention as to a system and method for processing particulars of a transaction over a network that comprises a terms and requirements module for receiving initial terms and requirements associated with the transaction and for generating modified terms and requirements based on supply chain events. (See Arnold Abstract)

Typically, the prior art process would require processing a letter of credit associated with a particular trade transaction, which would comprise processing and analysis of trade documents and

trade data to determine compliance with the particular terms and requirements of an associated letter

of credit. (See Arnold paragraph 32 and Figure 2 – *total amount of credit for a particular order of goods*)

Figure 3 discloses a process essentially the same as the process disclosed with reference to Figure 2,

however with the enhancement of further incorporating supply chain event data or information in

making compliance determinations, such as for location, condition or payment terms. (See Arnold

paragraph 34 and Fig. 3) In some embodiments, the supply chain payment engine or module may also

comprise modules that effect settlement or assurance of a trade transaction and notes that settlements

may be broken into pieces based on when certain supply chains events occur or are achieved. (See

Arnold paragraph 37)

It would have been obvious to further modify the method of processing a transaction that

includes receiving a notification of a change in status of physical goods or other event in a physical

supply chain using RFID tags as disclosed by Nichols in view of Cova with determination of terms and

requirements for a transaction before goods entered the supply chain as taught by Arnold in order to

ensure that payments are guaranteed.

Regarding Claim 13, Nichols discloses the following:

A method comprising:

- receiving, by a transaction circuit of a financial institution computing system (*financial institution
  has control of the centralized tracking system*) over a network through a network interface
  circuit, the transaction circuit including at least one processor and a memory, a transaction
  request relating to an order of goods and at least one tag from a seller computing system
  wherein each tag comprises a Global Positioning System ("GPS") transceiver located at a
  physical location of one or more goods of an order of goods; (See Nichols paragraphs 23-24, 32-
  39, 42-45, 47, Figures 3-4)
- approving, by the transaction circuit, a seller associated with the seller computing system for a
  total amount of a line of credit for the order of goods;
- generating, by the transaction circuit, a transaction schedule based on the transaction request
  and customer information in a customer database (*tracking database*) at the financial institution
  computing system (*financial institution has control of centralized tracking system*), and storing
  information relating to the transaction request, the at least one tag, and the transaction
  schedule in a tag database (*tracking database*) at the financial institution computing system;

(See Nichols paragraphs 33-35, 38-39, 41-47 Figs. 3-4– *one or more parties in the physical supply chain are allowed control to create and modify rules for a transaction as desired and may be parties to an agreement where the financial institution may provide a structured procedure and/or interface for allowing the party or parties to establish and control the rules)*

- receiving, by the transaction circuit, tag data over the network corresponding to a plurality of physical movements of some or all goods of the order of goods, and performing one or more transactions pursuant to the transaction schedule based on the tag data, the tag data comprising GPS data; (See Nichols paragraphs 23-24, 33-34, 41-45, 46-51 and Figs. 3-5)

- determining, by the transaction circuit, a plurality of physical locations of some or all goods of the order of goods using the GPS data; and

- performing, by the transaction circuit, a plurality of ~~one or more~~ transactions pursuant to the transaction schedule based on the determined plurality of physical locations; (See Nichols paragraphs 23-24, 33-34, 41-45, 46-51 and Figs. 3-5)

- wherein performing the plurality of transactions includes extending the line of credit to the seller in a plurality of increments that are based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of crdit extended to the seller up to a first amount that is less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is less than or equal to the total approved amount of the line of credit, wherein the first increment is extended in response to the first physical movement indicated by the tag data and the second increment is extended in response to a second physical movement indicated by the tag data. (See Nichols paragraphs 12, 38-39, 44-49 - – *in an embodiment, the rules are governed by a contract or one or more agreements that allow parties to control the rules that give rise to specific financial transactions or other actions in response thereto including extending a line of credit according to rules, for example, the rules may specify that funds are to be transferred from a first particular party to a second particular party responsive to the notification of a shipment or arrival of the goods from or to a specified point on the physical supply chain)*

Nichols discloses her invention as to a method for processing a transaction that includes receiving a notification of a change in status of physical goods or other event in a physical supply chain and automatically transferring funds in response to the notification.   (See Nichols Abstract) In one aspect, the funds that are transferred pursuant to a pre-existing agreement between the party and a

second party involved in the transfer represent a portion of an agreed upon payment for sale of physical goods and in this instance one or more additional notifications may be received for one or more additional changes in status of the goods or other events in the physical supply chain and additionally portions of the payment are transferred in response to each additional notification. (See Nichols paragraphs 10-11)

In another aspect, a method for processing a transaction includes establishing a relationship with a party and providing the party control to create a rule for automatic transfer of funds in response to giving a notification of a specified change in status of goods or other event in a physical supply chain. (See Nichols paragraph 12) *The funds transferred are owned or otherwise controlled by the party, such as money in an account or a credit line granted to the party*. (See Nichols paragraph 12 – *emphasis added)*

In furtherance of a financial transaction, such as transferring funds between parties, extending a credit line, etc., in response to being notified of an event occurring in the physical supply chain, rules or other terms may be established to govern which specific events in the physical supply chain give rise to specific financial transactions or other actions to be performed in response thereto. (See Nichols paragraph 45) In an example, the rules may specify that funds are to be transferred from a first particular party to a second particular party responsive to notification of a shipment or arrival of the goods from or to a specified point on the physical supply chain. (See Nichols paragraph 45) *The rules may require that a percentage of the payment be transferred immediately and the rest of the payment be delayed for a specific time where the parties are allowed to control and create and modify rules for a transaction as desired.* (See Nichols paragraph 45 – *emphasis added*) In one embodiment, the rules are governed by a contract or other agreement negotiated between one or more of the involved parties, for example, a party may be permitted to select from a limited list of different events that will trigger transfer of funds. (See Nichols paragraph 45) Nichols also discloses that a wide variety of different events and corresponding actions may be provided for in the rules and the nature of such events and actions may not be limited. (See Nichols paragraph 46) *For example, the rules may be stored and correlated with parties, events, actions, etc., in a "rules based database." As known in the art, a rules based database can define dynamic rules that are interpreted in real-time according to a state of events, such as the events occurring in the physical supply chain. This information can be organized based on typical or common agreement terms, for example, duration, movement, transfer, staged or termed events, etc. The structure of the database may be based on agreement type, market segment, client identity, etc.* (See Nichols paragraph 47 – *emphasis added*)

In one embodiment, a financial transaction may include a payment to a recipient for a sale of goods and is configured to be processed in several portions or steps, as multiple events occur with respect to a single unit of goods along the physical supply chain.   (See Nichols paragraph 48)

A first event in the physical supply chain occurs at step 502 such as a shipment or delivery of goods from one point to another in the physical supply chain 400 as shown in FIG. 4. (See Nichols paragraph 49) In an embodiment, the rules specify that a partial payment is to be made upon receiving notification of the first event occurring. Accordingly, once the notification is received, the financial institution 407 transfers a first portion of the payment to the recipient, according to the established rules, at step 504. (See Nichols paragraph 49) In this embodiment, the transfer of the first portion of the payment is performed automatically upon receiving the notification. (See Nichols paragraph 49) The occurrences of subsequent specified events in the physical supply chain are processed similarly to steps 502-504, through notification and transmission of another portion of the payment. (See Nichols paragraph 49) While the process in FIG. 5 described thus far may be used for a financial transaction involving only a single full payment, in this particular embodiment, it will be shown how the payment can be transferred in at least two portions, in response to at least two events in the physical supply chain. (See Nichols paragraph 49 and Figure 5)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention by integrating two component claim elements contained in the claims (*the customer database and the tag database*) into one integrated claim element (*the tracking database of Nichols*) wherein each component claim element continues to serve the same function. In the integration, each component claim element, would merely have performed the same function as it did previously, and one of ordinary skill in the art at the time the invention was made would have recognized that the results of the integration were predictable. See MPEP §2144.04 (VI)(B)

It would have been further obvious to one of ordinary skill in the art at the time of the invention in view of the disclosure of Nichols that in furtherance of a financial transaction such as extending a credit line in response to being notified of an event occurring in the physical supply chain and noting that the rules governing transactions may be specified by the parties where the parties are allowed to control, create and modify rules for a transaction as desired and that payments can be transferred in at least two portions in response to at least two events in the physical supply chain that the parties could specify how much of a first and second amount of a line of credit as related to a maximum was received by the seller in response to notification of physical movement of goods in order to allow the parties to not be limited in how payment transactions are structured.

While Nichols discloses the invention as claimed, it does not fully disclose that the tag data specifically comprises GPS data, though Nichols does track locations along the physical supply chain. Further, while Nichols discloses extending a line of credit in response to events in the physical supply chain including notification of a shipment or arrival of goods from or to a specified point on the supply chain, it is not squarely taught that seller was approved for a total amount of a line of credit for the order of goods and that the line of credit is extended incrementally to the total approved amount of the line of credit for the order of goods.

Cova discloses his invention as to techniques for monitoring and tracking assets and providing notifications to users are disclosed. (See Cova Abstract) In one aspect, a request to track an asset and enterprise data describing the asset are received, a tag is selected to associate with the asset, and event notification is received from the tag, and a user notification is generated from the event notification and the enterprise data. (See Cova Abstract)

In particular, Cova discloses that the buyer or seller sends a request to the tag provider requesting tracking of the shipment of the asset and the tag provider arranges for a tag to be sent from the tag pool to the location from where the asset is being shipped. (See Cova paragraph 20) Each tag in the tag pool is a tracking device that can be used to ship an asset and the tag can be affixed or coupled to the asset at the origin location and an example tag is a GPS Location + Security + Environmental tag. (See Cova paragraph 20)

It would have been obvious to one of ordinary skill in the art to modify the method of processing a transaction that includes receiving a notification of a change in status of physical goods or other event in a physical supply chain using RFID tags as disclosed by Nichols with the particular type of tag comprising a GPS location tag as taught by Cova in order to enhance the tracking ability of the tags used to track packages.

While Nichols in view of Cova discloses the invention as claimed and that the line of credit is extended based on increments based on physical location, they do not squarely disclose that the seller has first been approved from a total amount for a line of credit for an order of goods.

Arnold discloses his invention as to a system and method for processing particulars of a transaction over a network that comprises a terms and requirements module for receiving initial terms and requirements associated with the transaction and for generating modified terms and requirements based on supply chain events. (See Arnold Abstract)

Typically, the prior art process would require processing a letter of credit associated with a particular trade transaction, which would comprise processing and analysis of trade documents and

trade data to determine compliance with the particular terms and requirements of an associated letter

of credit. (See Arnold paragraph 32 and Figure 2 – *total amount of credit for a particular order of goods*)

Figure 3 discloses a process essentially the same as the process disclosed with reference to Figure 2,

however with the enhancement of further incorporating supply chain event data or information in

making compliance determinations, such as for location, condition or payment terms. (See Arnold

paragraph 34 and Fig. 3) In some embodiments, the supply chain payment engine or module may also

comprise modules that effect settlement or assurance of a trade transaction and notes that settlements

may be broken into pieces based on when certain supply chains events occur or are achieved. (See

Arnold paragraph 37)

It would have been obvious to further modify the method of processing a transaction that

includes receiving a notification of a change in status of physical goods or other event in a physical

supply chain using RFID tags as disclosed by Nichols in view of Cova with determination of terms and

requirements for a transaction before goods entered the supply chain as taught by Arnold in order to

ensure that payments are guaranteed.

Regarding Claim 17, this claim recites substantially similar limitations as those seen in Claims 1 and 13

and as to those limitations is rejected for the same basis and reasons as disclosed above. Further,

Nichols discloses the following:

A non-transitory computer readable media having computing-executable instructions embodied

therein that, when executed by a processor of a transaction circuit of a financial institution computing

system, causes the financial institution computing system to perform operations comprising: (See

Nichols paragraphs 24-25, 33-34, 54 and Claim 8)

Regarding Claim 21, Nichols discloses the following:

A financial institution computing system, the system comprising:

- A customer database (*tracking database*) configured to retrievably store information relating to
  a plurality of financial accounts including at least a financial account of a seller and a financial
  account of a buyer, (See Nichols paragraphs 26, 33-35, 38-39, 43, 47-48 and Figs 3-4)

- a tag database (*tracking database*) configured to retrievably store information relating to a
  plurality of tags associated with a plurality of orders, wherein each tag comprises a Global
  Positioning System ("GPS") transceiver located at a physical location of one or more goods of an
  order of goods; (See Nichols paragraphs 32-35, 38-39, 42-45, 47-51 Figs. 3-5)

- a network interface circuit configured to facilitate the financial institution computing system in exchanging information over a network; and (See Nichols paragraphs 33, 36-38, 43-45)

- a transaction circuit, including at least one processor and a memory storing instructions executable by the processor to: (See Nichols paragraphs 23-24, 33-34, Figure 3)

  - provide a user interface for each of the seller and the buyer that is accessible over the network, wherein the user interface allows each of a seller computing system and a buyer computing system to define terms for a transaction request and a corresponding transaction schedule relating to an order of goods and at least one tag; (See Nichols paragraphs 33-35, 36-39, 41-47 Figs. 3-4– *one or more parties in the physical supply chain are allowed control to create and modify rules for a transaction as desired and may be parties to an agreement where the financial institution may provide a structured procedure and/or interface for allowing the party or parties to establish and control the rules)*

  - receive the terms for the transaction request and the corresponding transaction schedule from the seller computing system and the buyer computing system (See Nichols paragraphs 41-43, 44-49, Figures 4-5);

  - approve the seller for a total amount of a line of credit for the order of goods;

  - approve the transaction request and the transaction schedule based on customer information relating to each of the seller and the buyer in the customer database, and store information relating to the transaction request, the transaction schedule, at the at least one tag in the tag database; (See Nichols paragraphs 33-35, 38-39, 41-47 Figs. 3-4– *one or more parties in the physical supply chain are allowed control to create and modify rules for a transaction as desired and may be parties to an agreement where the financial institution may provide a structured procedure and/or interface for allowing the party or parties to establish and control the rules)*

  - receive tag data corresponding to a plurality of physical movements of the order of goods and update the user interface to allow each of the seller and the buyer to view information relating to the location of the order of goods, the tag data comprising GPS data (See Nichols paragraphs 23-24, 33-34, 41-45, 46-51 and Figs. 3-5)

  - determine a plurality of physical locations of the order of goods using the GPS data;

  - perform one or more transactions pursuant to the transaction schedule based on the determined plurality of physical locations, the one or more transactions including

extending the line of credit to the seller in one or more increments such than an amount of the line of credit extended to the seller is at least initially less than the total approved amount of the line of credit; (See Nichols paragraphs 12, 23-24, 33-34, 38-49, 46-51 and Figs. 3-5 - *in an embodiment, the rules are governed by a contract or one or more agreements that allow parties to control the rules that give rise to specific financial transactions or other actions in response thereto including extending a line of credit according to rules, for example, the rules may specify that funds are to be transferred from a first particular party to a second particular party responsive to the notification of a shipment or arrival of the goods from or to a specified point on the physical supply chain*)

- o receive tag data indicating that the order of goods has arrived at the buyer and perform a final payment transaction from the financial account of the buyer to the financial account of the seller. (See Nichols paragraphs 43-46, 47-49 and Figs. 4-5)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention by integrating two component claim elements contained in the claims (*the customer database and the tag database)* into one integrated claim element (*the tracking database of Nichols)* wherein each component claim element continues to serve the same function. In the integration, each component claim element, would merely have performed the same function as it did previously, and one of ordinary skill in the art at the time the invention was made would have recognized that the results of the integration were predictable. See MPEP §2144.04 (VI)(B)

While Nichols discloses the invention as claimed, it does not fully disclose that the tag data specifically comprises GPS data, though Nichols does track locations along the physical supply chain. Further, while Nichols discloses extending a line of credit in response to events in the physical supply chain including notification of a shipment or arrival of goods from or to a specified point on the supply chain, it is not squarely taught that seller was approved for a total amount of a line of credit for the order of goods and that the line of credit is extended incrementally to the total approved amount of the line of credit for the order of goods.

Cova discloses his invention as to techniques for monitoring and tracking assets and providing notifications to users are disclosed. (See Cova Abstract) In one aspect, a request to track an asset and enterprise data describing the asset are received, a tag is selected to associate with the asset, and event notification is received from the tag, and a user notification is generated from the event notification and the enterprise data. (See Cova Abstract)

In particular, Cova discloses that the buyer or seller sends a request to the tag provider requesting tracking of the shipment of the asset and the tag provider arranges for a tag to be sent from the tag pool to the location from where the asset is being shipped. (See Cova paragraph 20) Each tag in the tag pool is a tracking device that can be used to ship an asset and the tag can be affixed or coupled to the asset at the origin location and an example tag is a GPS Location + Security + Environmental tag. (See Cova paragraph 20)

It would have been obvious to one of ordinary skill in the art to modify the method of processing a transaction that includes receiving a notification of a change in status of physical goods or other event in a physical supply chain using RFID tags as disclosed by Nichols with the particular type of tag comprising a GPS location tag as taught by Cova in order to enhance the tracking ability of the tags used to track packages.

While Nichols in view of Cova discloses the invention as claimed and that the line of credit is extended based on increments based on physical location, they do not squarely disclose that the seller has first been approved from a total amount for a line of credit for an order of goods.

Arnold discloses his invention as to a system and method for processing particulars of a transaction over a network that comprises a terms and requirements module for receiving initial terms and requirements associated with the transaction and for generating modified terms and requirements based on supply chain events. (See Arnold Abstract)

Typically, the prior art process would require processing a letter of credit associated with a particular trade transaction, which would comprise processing and analysis of trade documents and trade data to determine compliance with the particular terms and requirements of an associated letter of credit. (See Arnold paragraph 32 and Figure 2 – *total amount of credit for a particular order of goods*) Figure 3 discloses a process essentially the same as the process disclosed with reference to Figure 2, however with the enhancement of further incorporating supply chain event data or information in making compliance determinations, such as for location, condition or payment terms. (See Arnold paragraph 34 and Fig. 3) In some embodiments, the supply chain payment engine or module may also comprise modules that effect settlement or assurance of a trade transaction and notes that settlements may be broken into pieces based on when certain supply chains events occur or are achieved. (See Arnold paragraph 37)

It would have been obvious to further modify the method of processing a transaction that includes receiving a notification of a change in status of physical goods or other event in a physical supply chain using RFID tags as disclosed by Nichols in view of Cova with determination of terms and

requirements for a transaction before goods entered the supply chain as taught by Arnold in order to ensure that payments are guaranteed.

Regarding Claim 2, this claim recites the limitations of Claim 1 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein the at least one tag comprises a code identifying one or more goods of the order of goods. (See Nichols paragraph 43)

Regarding Claim 3, this claim recites the limitations of Claim 1 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein the tag data comprises information identifying a global positioning system transceiver associated with one or more goods of the order of goods. (See Nichols paragraphs 38-39, 43)

Regarding Claim 5, this claim recites the limitations of Claim 1 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein the performance of the plurality of transactions includes extending the line of credit to the seller in the plurality increments that are based on the tag data and receiving a payment of a purchase price for the order of goods after the transaction circuit receives tag data indicating that the order of goods has arrived at the buyer. (See Nichols paragraphs 12, 38-39, 44-49 and Figures 4-5)

Regarding Claim 6, this claim recites the limitations of Claim 5 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein the instructions are further executable by the processor to record an amount of the extended line of credit used by the seller; (See Nichols paragraphs 23-24, 33-34, 38-39, 44-49 and Figure 3)
- wherein the performance of the plurality of transactions includes extending the line of credit to the seller in the plurality increments that are based on the tag data and applying the payment of the purchase price toward the amount of the line of credit used by the seller. (See Nichols paragraphs 12, 38-39 and 44-49)

Regarding Claim 9, this claim recites the limitations of Claim 1 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein the performance of the plurality of transactions includes extending the line of credit to the seller in the plurality increments that are based on the tag data and applying a plurality of payment transactions from a financial account of a buyer to a financial account of a seller toward a purchase price for the order of goods, wherein each of the plurality of payment transactions is based on received tag data. (See Nichols paragraphs 12, 38-39, 44-50 and Figs. 4-5)

Regarding Claim 10, this claim recites the limitations of Claim 1 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein the performance of the plurality of transaction further includes extending the line of credit to the seller in the plurality increments that are based on tag data and applying a plurality of cash advances provided by a financial institution account to a financial account of a seller, wherein the sum of the plurality of cash advances is repaid with a payment of the purchase price for the order of goods received from a buyer. (See Nichols paragraphs 12, 38-39, 44-50 and Figs 4-5)

Regarding Claim 11, this claim recites the limitations of Claim 1 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein tag data is received from a tracker computing system associated with a third party. (See Fig. 3 and paragraphs 38-39)

Regarding Claim 12, this claim recites the limitations of Claim 1 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein tag data is received by a tracker computing system associated with the financial institution computing system. (See Nichols paragraphs 41-43, Fig 4)

Regarding Claim 16, this claim recite the limitations of Claim 13 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein performing the plurality of transactions includes extending the line of credit to the seller in the plurality increments that are based on the tag data and a plurality of payment

transactions toward a purchase price for the order of goods, wherein each of the plurality of

payment transactions is based on received tag data. (See Nichols paragraphs 12, 38-39, 44-50

and Figs. 4-5)

Regarding Claim 20, this claim recites the limitations of Claim 17 and as to those limitations is rejected

for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein performing the plurality of transactions includes extending the line of credit to the

  seller in the plurality increments that are based on the tag data and applying a plurality of

  payment transactions toward a purchase price for the order of goods, wherein each of the

  plurality of payment transactions is based on received tag data. (See Nichols paragraphs 12, 38-

  39, 44-50 and Figs. 4-5)

Regarding Claim 22, this claim recites the limitations of Claim 21 and as to those limitations is rejected

for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein the final payment transaction is used to pay off at least some of an outstanding balance

  of the line of credit. (See Nichols paragraphs 12, 38-39, 44-50)

Regarding Claim 24, this claim recites the limitations of Claim 21 and as to those limitations is rejected

for the same basis and reasons as above. Further, Nichols discloses the following:

- wherein the instructions cause the processor to perform a plurality of transactions based on the

  received tag data, and wherein performance of the plurality of transactions further includes a

  plurality of payment transactions toward a purchase price for the order of goods, wherein each

  of the plurality of payment transactions is based on received tag data. (See Nichols paragraphs

  12, 38-39, 44-50 and Figs. 4-5)

10. **Claims 7-8, 15, 19 and 23** are rejected under 35 U.S.C. 103 as being unpatentable over Nichols

et al. (US PG Pub. 2015/0149352) ("Nichols") in view of Cova et al. (US PG Pub. 2012/0303498) and

Arnold et al. (US PG Pub. 2007/0192216) ("Arnold") as applied to the claims above and further in view of

Blount et al (US PG Pub. 2009/0187482) ("Blount")

Regarding Claim 7, this claim recites the limitations of Claim 1 and as to those limitations is rejected for

the same basis and reasons as above. Further, Nichols in view of Blount discloses the following:

-       wherein the performance of the plurality of transactions includes extending the line of credit to

        the seller in the plurality increments that are based on the tag data and providing original

        insurance coverage for the order of goods and adjusting original insurance coverage based on

        received tag data.

In addition to the disclosure above as to previous claims, Nichols discloses that financial

transactions include all business transactions including transactions for the sale or transfer of physical

goods, services, securities, etc. and that events in the physical supply chain including confirmed

satisfaction of quality control standards, processing of goods, delivery of goods and other types of

processing. (See Nichols paragraphs 41) Nichols also discloses that centralized monetary package

tracking may allow for more accurate reporting of monetary package status including accounting for

anomalies including a lost or delayed package. (See Nichols paragraph 9) Nichols further discloses

receiving tag data to aid in tracking monetary packages. (See Nichols paragraphs 32-35) However

Nichols does not disclose provision of insurance coverage and adjusting coverage based on received tag

data.

Blount discloses his invention as to systems, methods and computer program products for

supply chain finance. (See Blount paragraph 5) Movement of the inventory from a supply

chain/logistics entity is received and in response to receiving information associated with movement of

the inventory, the processor automatically adjusts at least one term of financing based on the

information associated with movement of the inventory. (See Blount paragraphs 8-9) The information

associated with movement of the inventory includes at least location information, identifying

information for the inventory or valuation information for the inventory. (See Blount paragraph 9)

When converging the physical supply chain with the financial supply chain, lenders can determine

lending or underwriting risks by evaluating the trade ecosystem. (See Blount paragraph 34) This may

include visibility which is the capability to electronically display the physical location of goods within the

supply chain and may including information related to the control and/or movement of goods including

milestone stages of the transport of goods, data used to create documentary evidence of goods, velocity

of the movement of goods and occurrence of exception events (e.g., delay in delivery of goods,

catastrophic loss of the goods, etc.) (See Blount paragraph 34) If the delay affected the risk level

associated with the delivery of the goods then the terms of financing may need to be adjusted

accordingly. (See Blount paragraph 34) Underwriting information may be related to the "visibility" of

the goods and the lender may receive electronic and/or physical documents associated with the

movement of goods including insurance certifications. (See Blount paragraphs 46-47) In some

embodiments, the visibility of the supply chain may allow for real-time adjustments to financing

arrangements and/or more complex arrangements where the financing changes based on completion of

particular events occurring in the supply chain. (See Blount paragraph 47) Further, the visibility can

permit the lender to take action to perfect its claim to a secured asset and repossess the asset in event

of borrower default or other performance regarding amount, condition, velocity, etc. (See Blount

paragraph 48)

Blount also discloses that other financing arrangements including the lender providing cargo

insurance because of the visibility information obtained and managed by the supply chain entity. (See

Blount paragraph 107 – *providing insurance*) Blount also discloses a system that provides the financing

of the asset based at least in part on evaluated attributes wherein the financing is adjustable based on

information relating to the inventory obtained by the supply chain/logistics entity and automatically

adjusting the at least one term of financing based on information associated with movement of the

inventory (See Claims 23 and 30 – *adjusting insurance based on movement of inventory information*)

It would have been obvious to one of ordinary skill in the art at the time of the invention to

modify the system and methods of Nichols that process a transaction including receiving a notification

of a change in status of physical goods or other event in a physical supply chain in response to the

notification with the financing arrangements including provision of insurance for goods and adjusting

financing based on the movement of the goods as disclosed in Blount in order to mitigate risk associated

with lost or damaged goods.

Regarding Claim 8, this claim recites the limitations of Claim 7 and as to those limitations is rejected for

the same basis and reasons as above. Further, Nichols in view of Blount discloses the following:

-   wherein the performance of the plurality of transactions includes extending the line of credit to

    the seller in the plurality increments that are based on the tag data and performing a settlement

    transaction to a seller account in the customer database after the transaction circuit receives tag

    data indicating that the order of goods has been lost or damaged, wherein the settlement

    transaction corresponds to at least one of the original or adjusted insurance coverage based on

    previously received tag data.

In addition to the disclosure above as to previous claims, Nichols discloses that financial

transactions include all business transactions including transactions for the sale or transfer of physical

goods, services, securities, etc. and that events in the physical supply chain including confirmed

satisfaction of quality control standards, processing of goods, delivery of goods and other types of

processing. (See Nichols paragraphs 41) Nichols also discloses that centralized monetary package tracking may allow for more accurate reporting of monetary package status including accounting for anomalies including a lost or delayed package. (See Nichols paragraph 9) Nichols further discloses receiving tag data to aid in tracking monetary packages. (See Nichols paragraphs 32-35) In response to notifications received, the financial institution may transfer payment. (See Nichols paragraph 49) While Nichols discloses reporting for anomalies including lost packages and discloses that specific specified events can trigger payment, Nichols does not disclose provision of insurance coverage based on received tag data. (See Nichols paragraphs 49-50 and Figs 4-5)

Blount discloses his invention as to systems, methods and computer program products for supply chain finance. (See Blount paragraph 5) Movement of the inventory from a supply chain/logistics entity is received and in response to receiving information associated with movement of the inventory, the processor automatically adjusts at least one term of financing based on the information associated with movement of the inventory. (See Blount paragraphs 8-9) The information associated with movement of the inventory includes at least location information, identifying information for the inventory or valuation information for the inventory. (See Blount paragraph 9) When converging the physical supply chain with the financial supply chain, lenders can determine lending or underwriting risks by evaluating the trade ecosystem. (See Blount paragraph 34) This may include visibility which is the capability to electronically display the physical location of goods within the supply chain and may including information related to the control and/or movement of goods including milestone stages of the transport of goods, data used to create documentary evidence of goods, velocity of the movement of goods and occurrence of exception events (e.g., delay in delivery of goods, catastrophic loss of the goods, etc.) (See Blount paragraph 34) If the delay affected the risk level associated with the delivery of the goods then the terms of financing may need to be adjusted accordingly. (See Blount paragraph 34) Underwriting information may be related to the "visibility" of the goods and the lender may receive electronic and/or physical documents associated with the movement of goods including insurance certifications. (See Blount paragraphs 46-47) In some embodiments, the visibility of the supply chain may allow for real-time adjustments to financing arrangements and/or more complex arrangements where the financing changes based on completion of particular events occurring in the supply chain. (See Blount paragraph 47) Further, the visibility can permit the lender to take action to perfect its claim to a secured asset and repossess the asset in event of borrower default or other performance regarding amount, condition, velocity, etc. (See Blount paragraph 48)

Blount also discloses that other financing arrangements including the lender providing cargo insurance because of the visibility information obtained and managed by the supply chain entity. (See Blount paragraph 107 – *providing insurance*) Blount also discloses a system that provides the financing of the asset based at least in part on evaluated attributes wherein the financing is adjustable based on information relating to the inventory obtained by the supply chain/logistics entity and automatically adjusting the at least one term of financing based on information associated with movement of the inventory (See Claims 23 and 30)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and methods of Nichols that process a transaction including receiving a notification of a change in status of physical goods or other event in a physical supply chain in response to the notification with the financing arrangements including provision of insurance for goods that may be lost based on the movement of the goods as disclosed in Blount in order to mitigate risk associated with lost or damaged goods.

Regarding Claims 15 and 19, these claims recite the limitations of Claims 13 and 17 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols in view of Blount discloses the following:

- wherein performing the plurality of transactions includes extending the line of credit to the seller in the plurality increments that are based on the tag data and providing insurance coverage for the order of goods based on the transaction request and adjusting insurance coverage based on received tag data.

In addition to the disclosure above as to previous claims, Nichols discloses that financial transactions include all business transactions including transactions for the sale or transfer of physical goods, services, securities, etc. and that events in the physical supply chain including confirmed satisfaction of quality control standards, processing of goods, delivery of goods and other types of processing. (See Nichols paragraphs 41) Nichols also discloses that centralized monetary package tracking may allow for more accurate reporting of monetary package status including accounting for anomalies including a lost or delayed package. (See Nichols paragraph 9) Nichols further discloses receiving tag data to aid in tracking monetary packages. (See Nichols paragraphs 32-35) However Nichols does not disclose provision of insurance coverage and adjusting coverage based on received tag data.

Blount discloses his invention as to systems, methods and computer program products for supply chain finance. (See Blount paragraph 5) Movement of the inventory from a supply

chain/logistics entity is received and in response to receiving information associated with movement of the inventory, the processor automatically adjusts at least one term of financing based on the information associated with movement of the inventory. (See Blount paragraphs 8-9) The information associated with movement of the inventory includes at least location information, identifying information for the inventory or valuation information for the inventory. (See Blount paragraph 9) When converging the physical supply chain with the financial supply chain, lenders can determine lending or underwriting risks by evaluating the trade ecosystem. (See Blount paragraph 34) This may include visibility which is the capability to electronically display the physical location of goods within the supply chain and may including information related to the control and/or movement of goods including milestone stages of the transport of goods, data used to create documentary evidence of goods, velocity of the movement of goods and occurrence of exception events (e.g., delay in delivery of goods, catastrophic loss of the goods, etc.) (See Blount paragraph 34) If the delay affected the risk level associated with the delivery of the goods then the terms of financing may need to be adjusted accordingly. (See Blount paragraph 34) Underwriting information may be related to the "visibility" of the goods and the lender may receive electronic and/or physical documents associated with the movement of goods including insurance certifications. (See Blount paragraphs 46-47) In some embodiments, the visibility of the supply chain may allow for real-time adjustments to financing arrangements and/or more complex arrangements where the financing changes based on completion of particular events occurring in the supply chain. (See Blount paragraph 47) Further, the visibility can permit the lender to take action to perfect its claim to a secured asset and repossess the asset in event of borrower default or other performance regarding amount, condition, velocity, etc. (See Blount paragraph 48)

Blount also discloses that other financing arrangements including the lender providing cargo insurance because of the visibility information obtained and managed by the supply chain entity. (See Blount paragraph 107 – *providing insurance*) Blount also discloses a system that provides the financing of the asset based at least in part on evaluated attributes wherein the financing is adjustable based on information relating to the inventory obtained by the supply chain/logistics entity and automatically adjusting the at least one term of financing based on information associated with movement of the inventory (See Claims 23 and 30)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and methods of Nichols that process a transaction including receiving a notification of a change in status of physical goods or other event in a physical supply chain in response to the

notification with the financing arrangements including provision of insurance for goods and adjusting financing based on the movement of the goods as disclosed in Blount in order to mitigate risk associated with lost or damaged goods.

Regarding Claim 23, this claim recites the limitations of Claim 21 and as to those limitations is rejected for the same basis and reasons as above. Further, Nichols in view of Blount discloses the following:

- wherein the instructions cause the processor to perform a plurality of transactions based on the received tag data, and wherein the performance of the plurality of transactions includes providing insurance coverage for the order of goods and adjusting insurance coverage based on received tag data.

In addition to the disclosure above as to previous claims, Nichols discloses that financial transactions include all business transactions including transactions for the sale or transfer of physical goods, services, securities, etc. and that events in the physical supply chain including confirmed satisfaction of quality control standards, processing of goods, delivery of goods and other types of processing. (See Nichols paragraphs 41) Nichols also discloses that centralized monetary package tracking may allow for more accurate reporting of monetary package status including accounting for anomalies including a lost or delayed package. (See Nichols paragraph 9) Nichols further discloses receiving tag data to aid in tracking monetary packages. (See Nichols paragraphs 32-35) However Nichols does not disclose provision of insurance coverage and adjusting coverage based on received tag data.

Blount discloses his invention as to systems, methods and computer program products for supply chain finance. (See Blount paragraph 5) Movement of the inventory from a supply chain/logistics entity is received and in response to receiving information associated with movement of the inventory, the processor automatically adjusts at least one term of financing based on the information associated with movement of the inventory. (See Blount paragraphs 8-9) The information associated with movement of the inventory includes at least location information, identifying information for the inventory or valuation information for the inventory. (See Blount paragraph 9) When converging the physical supply chain with the financial supply chain, lenders can determine lending or underwriting risks by evaluating the trade ecosystem. (See Blount paragraph 34) This may include visibility which is the capability to electronically display the physical location of goods within the supply chain and may including information related to the control and/or movement of goods including milestone stages of the transport of goods, data used to create documentary evidence of goods, velocity

of the movement of goods and occurrence of exception events (e.g., delay in delivery of goods, catastrophic loss of the goods, etc.) (See Blount paragraph 34) If the delay affected the risk level associated with the delivery of the goods then the terms of financing may need to be adjusted accordingly. (See Blount paragraph 34) Underwriting information may be related to the "visibility" of the goods and the lender may receive electronic and/or physical documents associated with the movement of goods including insurance certifications. (See Blount paragraphs 46-47) In some embodiments, the visibility of the supply chain may allow for real-time adjustments to financing arrangements and/or more complex arrangements where the financing changes based on completion of particular events occurring in the supply chain. (See Blount paragraph 47) Further, the visibility can permit the lender to take action to perfect its claim to a secured asset and repossess the asset in event of borrower default or other performance regarding amount, condition, velocity, etc. (See Blount paragraph 48)

Blount also discloses that other financing arrangements including the lender providing cargo insurance because of the visibility information obtained and managed by the supply chain entity. (See Blount paragraph 107 – *providing insurance*) Blount also discloses a system that provides the financing of the asset based at least in part on evaluated attributes wherein the financing is adjustable based on information relating to the inventory obtained by the supply chain/logistics entity and automatically adjusting the at least one term of financing based on information associated with movement of the inventory (See Claims 23 and 30 – *adjusting insurance based on movement of inventory information*)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and methods of Nichols that process a transaction including receiving a notification of a change in status of physical goods or other event in a physical supply chain in response to the notification with the financing arrangements including provision of insurance for goods and adjusting financing based on the movement of the goods as disclosed in Blount in order to mitigate risk associated with lost or damaged goods.

Response to Arguments

Applicant's arguments filed January 21, 2020 have been fully considered but they are not fully persuasive as explained below.

As to the 101 Rejection:

Applicant asserts that the independent claims are not directed to an abstract idea. Examiner disagrees.

While Applicant attempts to argue that GPS transceiver data is an improvement to the functioning of a computer or other technology, Examiner disagrees. The GPS transceiver is providing location data via a network, as admitted by Applicant. This is not a technical improvement, rather this is another data point that is used to track goods.

The well-understood, routine, conventional analysis is separate from the Step 2A analysis, however noting that the components are recited at a high level of generality (which they are) is not the same as declaring them well-understood, routine and conventional.

Under Step 2B, Applicant asserts that if the claims are abstract then they are significantly more. Examiner disagrees. Applicant then asserts that the elements must be (presumably), the exact same. The nature of well-understood, routine and conventional cannot ignore that the universe of inventions may not use the same terminology or that each analysis must turn on the facts and disclosures and the state of the art of a particular application at a particular point in time. The elements currently claimed are not significantly more.

While Applicant asserts that the citations to the court cases from MPEP 2105.05(d) and the Applicant's own specification do not fulfill the requirements for a factual determination under the *Berkheimer*, Examiner disagrees.

Applicant is referred to the USPTO Memo dated April 19, 2018 regarding Changes in Examination Procedure Pertaining to Subject Matter Eligibility as a result of *Berkheimer*.

In particular, under Section III (A) of the Memo it is noted that in a Step 2B analysis an additional element (or combination of elements) is not well-understood, routine or conventional unless the examiner finds, and expressly supports a rejection in writing with **one or more of the following**:

> 1. **A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s). A specification demonstrates the well-understood, routine, conventional nature of additional elements when it describes the additional elements as well-understood or routine or conventional (or an equivalent term), as a commercially available product, or in a manner that indicates that the additional elements are sufficiently well-known that the specification does not need to describe the particulars of such additional elements to satisfy 35 USC 112(a). A finding that an element is well-understood, routine or conventional cannot be based on the fact that the specification is silent with respect to describing such element. (*emphasis added*)**

2.　　　A citation to one or more of the court decisions discussed in MPEP 2106.05(d)(II) as

noting the well-understood, routine, conventional nature of the additional element(s).

(emphasis added)

3.　　　A citation to a publication that demonstrates the well-understood, routine and

conventional nature of the additional element(s).

4.　　　A statement that the examiner is taking official notice of the well-understood, routine,

conventional nature of the additional element(s).

In the instant case, Examiner, in the rejection in chief presented at least the following recitations

from Appellant's own specification and references to the court cases which qualifies under #1 and #2 of

the four options listed in the guidance Memo regarding *Berkheimer*. Applicant's arguments to the

contrary are not persuasive as the cited passages from Applicant's specification indicate the

conventional nature of the computerization being used.

The 101 Rejection is maintained.

As to the 112 Rejections:

Applicant rectified the previous 112 rejections, however created a new set of 112(b) and (d)

rejections based on the amendments made to Claim 21 as fully disclosed above.

As to the 103 Rejections:

The amendments made required application of additional prior art as is fully disclosed in the

rejection in chief.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office

action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the

extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date

of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMBREEN A ALLADIN whose telephone number is (571)270-3533. The examiner can normally be reached on Monday - Friday 9-5.

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.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shahid R. Merchant can be reached on 571-270-01360. 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 https://ppair-my.uspto.gov/pair/PrivatePair. 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.

/AAA/

March 2, 2020

/LINDSAY M MAGUIRE/
Primary Examiner, Art Unit 3693

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1.   (Currently Amended) A financial institution computing system, the system comprising:

a customer database configured to retrievably store customer information relating to a plurality of financial accounts;

a tag database configured to retrievably store information relating to a plurality of tags, wherein each tag comprises a Global Positioning System ("GPS") transceiver located at a physical location of one or more goods, and wherein a tag is coupled to a good of an order of goods;

a network interface circuit configured to facilitate the financial institution computing system in exchanging information over a network; and

a transaction circuit, including at least one processor and a memory storing instructions executable by the processor to:

receive a transaction request relating to [[an]]the order of goods and at least one the tag from a seller computing system over the network;

approve the seller for a total amount of a line of credit for the order of goods;

generate a transaction schedule based on the transaction request and customer information in the customer database, and store information relating to the transaction request, the at least one tag, and the transaction schedule in the tag database;

receive tag data corresponding to a plurality of physical movements of the good some or all goods of the order of goods over the network, the tag data comprising GPS data, wherein each physical movement is based on a physical movement of the tag coupled to the good of the order of goods;

determine a plurality of physical locations of the ~~some or all~~ good[[s]] of the order of goods using the GPS data;

determine an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance; and

perform a plurality of transactions pursuant to the transaction schedule based on the determined plurality of physical locations;

wherein the performance of the plurality of transactions includes extending [[the]]a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit ~~that are~~ based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit,

wherein the first increment is ~~extended~~ reached in response to ~~a first physical movement indicated by~~ the tag data indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance and the second increment is ~~extended~~ reached in response to ~~a second physical movement indicated by~~ the tag data indicating the good of the order of goods moved a third predefined distance that is more than the second predefined distance and less than or equal to the total expected distance.

2.   (Previously Presented) The financial institution computing system of claim 1, wherein the at least one tag comprises a code identifying one or more goods of the order of goods.

3.   (Previously Presented) The financial institution computing system of claim 1, wherein the tag data comprises information identifying a global positioning system transceiver associated with one or more goods of the order of goods.

4.   (Cancelled)

5.   (Currently Amended) The financial institution computing system of claim 1, wherein the ~~performance of the plurality of transactions includes extending the line of credit to the seller in the plurality increments that are based on the tag data and receiving a payment of a purchase price for the order of goods after the~~ transaction circuit receives tag data indicating that the order of goods has arrived at the buyer <u>and receives an indication of a payment of a purchase price for the order of goods</u>.

6.   (Currently Amended) The financial institution computing system of claim 5, wherein the instructions are further executable by the processor to record an amount of the extended line of credit used by the seller;

        wherein the performance of the plurality of transactions includes ~~extending the line of credit to the seller in the plurality increments that are based on the tag data and~~ applying the payment of the purchase price toward the amount of the line of credit used by the seller.

7.   (Currently Amended) The financial institution computing system of claim 1, wherein the performance of the plurality of transactions includes ~~extending the line of credit to the seller in the plurality increments that are based on the tag data and~~ providing original insurance coverage for the order of goods and adjusting the original insurance coverage based on received tag data.

8.   (Currently Amended) The financial institution computing system of claim 7, wherein the performance of the plurality of transactions includes ~~extending the line of credit to the seller in the plurality increments that are based on the tag data and~~ performing a settlement transaction to a seller account in the customer database after the transaction circuit receives tag data indicating that the order of goods has been lost or damaged, wherein the settlement transaction corresponds to at least one of the original or adjusted insurance coverage based on previously received tag data.

9.   (Currently Amended) The financial institution computing system of claim 1, wherein the performance of the plurality of transactions includes ~~extending the line of credit to the seller in the plurality increments that are based on the tag data and~~ applying a plurality of payment transactions from a financial account of a buyer to a financial account of a seller toward a purchase price for the order of goods, wherein each of the plurality of payment transactions is based on received tag data.

10.   (Currently Amended) The financial institution computing system of claim 1, wherein the performance of the plurality of transactions further includes ~~extending the line of credit to the seller in the plurality increments that are based on the tag data and~~ applying a plurality of cash advances provided by a financial institution account to a financial account of a seller, wherein the sum of the plurality of cash advances is repaid with a payment of the purchase price for the order of goods received from a buyer.

11.   (Original) The financial institution computing system of claim 1, wherein tag data is received from a tracker computing system associated with a third party.

12.   (Original) The financial institution computing system of claim 1, wherein tag data is received by a tracker computing system associated with the financial institution computing system.

13.   (Currently Amended) A method comprising:

receiving, by a transaction circuit of a financial institution computing system over a network through a network interface circuit, the transaction circuit including at least one processor and a memory, a transaction request relating to an order of goods and ~~at least one~~ a tag from a seller computing system, wherein each tag comprises a Global Positioning System ("GPS") transceiver ~~located at a physical location of one or more goods~~, and wherein the tag is coupled to a good of [[an]]the order of goods;

approving, by the transaction circuit, a seller associated with the seller computing system for a total amount of a line of credit for the order of goods;

generating, by the transaction circuit, a transaction schedule based on the transaction request and customer information in a customer database at the financial institution computing system, and storing information relating to the transaction request, the at least one tag, and the transaction schedule in a tag database at the financial institution computing system;

receiving, by the transaction circuit, tag data over the network corresponding to a plurality of physical movements of the good ~~some or all goods of the order of goods~~, the tag data comprising GPS data, <u>wherein each physical movement is based on a physical movement of the tag coupled to the good of the order of goods</u>;

determining, by the transaction circuit, a plurality of physical locations of ~~some or all~~ <u>the</u> good[[s]] of the order of goods using the GPS data; and

<u>determining, by the transaction circuit, an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance;</u> and

performing, by the transaction circuit, a plurality of transactions pursuant to the transaction schedule based on the determined plurality of physical locations;

wherein performing the plurality of transactions includes extending [[the]]<u>a</u> line of credit to the seller in a plurality of increments <u>relative to the total amount of the line of credit</u> ~~that are~~ based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is <u>more than the initial line of credit and</u> less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is <u>more than the first amount and</u> less than or equal to the total approved amount of the line of credit,

wherein the first increment is ~~extended~~<u>reached</u> in response to ~~a first physical movement indicated by~~ the tag data <u>indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance</u> and the second increment is ~~extended~~<u>reached</u> in response to ~~a second physical movement indicated by~~ the tag data <u>indicating the good of the order of goods moved a third</u>

<u>predefined distance that is more than the second predefined distance and less than or equal to the</u> <u>total expected distance</u>.

14.   (Cancelled)

15.   (Currently Amended) The method of claim 13, wherein performing the plurality of transactions includes ~~extending the line of credit to the seller in the plurality increments that are based on the tag data and~~ providing insurance coverage for the order of goods based on the transaction request and adjusting insurance coverage based on received tag data.

16.   (Currently Amended) The method of claim 13, wherein performing the plurality of transactions includes ~~extending the line of credit to the seller in the plurality increments that are based on the tag data and~~ applying a plurality of payment transactions toward a purchase price for the order of goods, wherein each of the plurality of payment transactions is based on received tag data.

17.   (Currently Amended) A non-transitory computer readable media having computer-executable instructions embodied therein that, when executed by a processor of a transaction circuit of a financial institution computing system, causes the financial institution computing system to perform operations comprising:

receive a transaction request relating to an order of goods and ~~at least one~~ a tag from a seller computing system over a network through a network interface circuit, wherein each tag comprises a Global Positioning System ("GPS") transceiver ~~located at a physical location of one or more goods~~, and wherein the tag is coupled to a good of an order of goods;

approve a seller associated with the seller computing system for a total amount of a line of credit for the order of goods;

generate a transaction schedule based on the transaction request and customer information in a customer database at the financial institution computing system, and store information relating to the transaction request, the ~~at least one~~ tag, and the transaction schedule in a tag database at the financial institution computing system;

receive tag data relating to a plurality of physical movements of the goods some or all goods of the order of goods over the network, the tag data comprising GPS data, wherein each physical movement is based on a physical movement of the tag coupled to the good of the order of goods;

determine an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance; and

perform a plurality of transactions pursuant to the transaction schedule based on the determined plurality of physical locations;

wherein the performance of the plurality of transactions includes extending [[the]]a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit that are based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit,

wherein the first increment is extended reached in response to a first physical movement indicated by the tag data indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance and the second increment is extended reached in response to a second physical movement indicated by the tag data indicating the good of the order of goods moved a third predefined distance that is more than the second predefined distance and less than or equal to the total expected distance.

18.   (Cancelled)

19.   (Currently Amended) The media of claim 17, wherein the performance of the plurality of transactions includes extending the line of credit to the seller in the plurality

~~increments that are based on the tag data and~~ providing insurance coverage for the order of goods based on the transaction request and adjusting insurance coverage based on received tag data.

20. (Currently Amended) The media of claim 17, wherein the performance of the plurality of transactions includes ~~extending the line of credit to the seller in the plurality increments that are based on the tag data and~~ applying a plurality of payment transactions toward a purchase price for the order of goods, wherein each of the plurality of payment transactions is based on received tag data.

21. (Currently Amended) A financial institution computing system, the system comprising:

a customer database configured to retrievably store information relating to a plurality of financial accounts including at least a financial account of a seller and a financial account of a buyer;

a tag database configured to retrievably store information relating to a plurality of tags associated with a plurality of orders, wherein each tag comprises a Global Positioning System ("GPS") transceiver ~~located at a physical location of one or more goods~~, and wherein a tag is coupled to a good of an order of goods;

a network interface circuit configured to facilitate the financial institution computing system in exchanging information over a network; and

a transaction circuit, including at least one processor and a memory storing instructions executable by the processor to:

provide a user interface for each of the seller and the buyer that is accessible over the network, wherein the user interface allows each of a seller computing system and a buyer computing system to define terms for a transaction request and a corresponding transaction schedule relating to an order of goods and ~~at least one~~ the tag;

receive the terms for the transaction request and the corresponding transaction schedule from the seller computing system and the buyer computing system;

approve the seller for a total amount of a line of credit for the order of goods;

approve the transaction request and the transaction schedule based on customer information relating to each of the seller and the buyer in the customer database, and store information relating to the transaction request, the transaction schedule, and the ~~at least one~~ tag in the tag database;

receive tag data corresponding to a plurality of physical movements of the ~~order of~~ good[[s]] and update the user interface to allow each of the seller and the buyer to view information relating to the location of the ~~order of~~ good[[s]], the tag data comprising GPS data, wherein each physical movement is based on a physical movement of the tag coupled to the good of the order of goods;

determine a plurality of physical locations of the order of goods using the GPS data;

determine an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance;

perform ~~one or more~~ a plurality of transactions pursuant to the transaction schedule based on the determined plurality of physical locations~~, the one or more transactions including extending the line of credit to the seller in one or more increments such that an amount of the line of credit extended to the seller is at least initially less than the total approved amount of the line of credit~~; and

receive tag data indicating that the order of goods has arrived at the buyer and perform a final payment transaction from the financial account of the buyer to the financial account of the seller;

wherein the performance of the plurality of transactions includes extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller

up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit,

wherein the first increment is reached in response to the tag data indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance and the second increment is reached in response to the tag data indicating the good of the order of goods moved a third predefined distance that is more than the second predefined distance and less than or equal to the total expected distance.

22.   (Previously Presented) The system of claim 21, wherein the final payment transaction is used to pay off at least some of an outstanding balance of the line of credit.

23.   (Currently Amended) The system of claim 21, ~~wherein the instructions cause the processor to perform a plurality of transactions based on the received tag data, and~~ wherein ~~the performance of~~ the plurality of transactions further includes providing insurance coverage for the order of goods and adjusting insurance coverage based on received tag data.

24.   (Currently Amended) The system of claim 21, ~~wherein the instructions cause the processor to perform a plurality of transactions based on the received tag data, and~~ wherein ~~the performance of~~ the plurality of transactions further includes a plurality of payment transactions toward a purchase price for the order of goods~~, wherein each of the plurality of payment transactions is based on received tag data~~.

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and the reasons that follow.

Status of Claims

Claims 1, 5-10, 13, 15-17, 19-21, 23, and 24 are currently amended. Claims 4, 14, and 18 were previously cancelled. No claims are new. Support for the amendments may be found at least at paragraphs [0031], [0040]-[0042], and [0055]. No new matter has been added. These amendments are made without prejudice or disclaimer.

After amending the claims as set forth above, claims 1-3, 5-13, 15-17, and 19-24 remain pending in this application. Applicant respectfully requests favorable reconsideration of these claims.

Advisory Action

In the Advisory Action received April 30, 2020, the Examiner stated that the proposed amendments from the response to the Final Office Action filed April 6, 2020 will not be entered. The present response is responsive to the Advisory Action and the Final Office Action.

Claim Rejections Under 35 U.S.C. § 112

Claims 21-24 were rejected under 35 U.S.C. § 112(b) or 35 U.S.C. § 112 (pre-AIA), second paragraph, as being indefinite.

Without acquiescing to the rejection and the comments in the Advisory Action, Applicant has amended claim 21 thereby rendering the rejection moot and overcome.

Claims 23-24 were rejected under 35 U.S.C. § 112(d) or pre-AIA 35 U.S.C. § 112, fourth paragraph, as being of improper dependent form.

Without acquiescing to the rejection, Applicant has amended claims 23-24 thereby rendering the rejection moot and overcome.

Claim Rejections Under 35 U.S.C. § 101

Claims 1-3, 5-13, 15-17 and 19-24 were rejected under 35 U.S.C. § 101 because the claimed invention is directed to an abstract idea without significantly more. Applicant respectfully traverses the rejection for at least the reasons below.

First, Applicant respectfully submits that the Section 101 rejections are moot given the claim amendments presented herein.

Second and notwithstanding, for the sake of argument and without conceding Step 2A, Prong One, the October 2019 PEG Update provides that "the Prong Two analysis considers the claim as a whole ... the limitations containing the judicial exception as well as the additional elements in the claim besides the judicial exception need to be evaluated together to determine whether the claim integrates the judicial exception into a practical application" (emphasis added). October 2019 PEG Update, pg. 12.

Accordingly, Page 5 of the Final Office Action's general assertion that "the claims only recite a computing device, a transaction circuit including a processor and a memory, a respective buyer and seller computing system, a GPS transceiver and a financial institution computing system which are recited at a high level of generality (i.e., as a generic processor performing generic computer functions) such that it amounts to no more than mere instructions to apply the exception using generic computer components," fails to properly consider whether the alleged abstract idea is integrated into a practical application under Prong Two, and instead, the Final Office Action should have evaluated "all additional elements, whether or not they are conventional," including "both the element and how it is used or arranged in the claim as a whole," as required by Prong Two of the 2019 PEG for the practical application determination. When proper consideration is given to "all additional elements" including "both the element and how it is used or arranged in the claim as a whole," as required by the 2019 PEG, it is

immediately apparent that each of the independent claims 1, 13, 17, and 21 incorporate the alleged abstract idea of "terms and performance of transactions for orders of goods tracked by tags corresponding to physical movements of the goods" (Final Office Action, pg. 5) into a practical application.

For example, the additional elements of claim 1 include at least "receive a transaction request relating to the order of goods and the tag from a seller computing system over the network," "receive tag data corresponding to a plurality of physical movements of the good over the network, the tag data comprising GPS data, wherein each physical movement is based on a physical movement of the tag coupled to the good of the order of goods," "determine a plurality of physical locations of the good of the order of goods using the GPS data," "determine an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance," "wherein the performance of the plurality of transactions includes extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit," and "wherein the first increment is reached in response to the tag data indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance and the second increment is reached in response to the tag data indicating the good of the order of goods moved a third predefined distance that is more than the second predefined distance and less than or equal to the total expected distance" (emphasis added). The manipulation of a particular machine (a "tag coupled to the good") in combination with the other elements provides a particular way of tracking goods and performing transactions based on the tracked goods.

Accordingly, it is respectfully submitted that claim 1 is not directed to a judicial exception, and even if the claim recites a judicial exception, the claim as a whole integrates the recited judicial exception into a practical application of the exception. Similar reasoning applies to independent claims 13, 17, and 21.

Based on the foregoing, withdrawal of the claim rejections under Section 101 is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-6, 9-14, 16-18, 20-22 and 24 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Publication No. 2015/0149352 ("Nichols") in view of U.S. Publication No. 2012/0303498 ("Cova") and U.S. Publication No. 2007/0192216 ("Arnold"). Claims 7-8, 15, 19 and 23 were rejected under 35 U.S.C. § 103 as being unpatentable over Nichols in view of Cova, Arnold, and further in view of U.S. Publication No. 2009/0187482 ("Blount").

Applicant respectfully disagrees with the assertion that the claims, as previously presented, are obvious over the references of record (alone or in combination suggested by the Office Action). However, to further prosecution and without acquiescing to the rejections, claim 1 has been amended to recite, in part:

> 1.   A financial institution computing system, the system comprising:
>
> …
>
> a tag database configured to retrievably store information relating to a plurality of tags, wherein each tag comprises a Global Positioning System ("GPS") transceiver, and wherein a tag is coupled to a good of an order of goods;
>
> ..
>
> a transaction circuit, including at least one processor and a memory storing instructions executable by the processor to:
>
> …

> determine an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance; and
>
> perform a plurality of transactions pursuant to the transaction schedule based on the determined plurality of physical locations;
>
> wherein the performance of the plurality of transactions includes extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit,
>
> wherein the first increment is reached in response to the tag data indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance and the second increment is reached in response to the tag data indicating the good of the order of goods moved a third predefined distance that is more than the second predefined distance and less than or equal to the total expected distance.

(Emphasis added). Nichols, Cova, and Arnold, alone or in combination, do not disclose, teach, or suggest the features of amended independent claim 1.

Nichols relates to a "method for processing a transaction includes receiving a notification of a change in status of physical goods." (Abstract). Nichols discloses that "each monetary package may physically include an identifying device ... [and that] [e]xamples of such an identifying device include a radio-frequency identification (RFID) tag or other wirelessly readable tag, a bar code or other visual label, or printed ink made directly on or in the monetary package." (¶[0032]). Further, "the financial institution is configured for taking actions in furtherance of a financial transaction, such as transferring funds between parties, extending a line of credit, etc., in response to being notified of an event occurring in the physical supply chain ...

." (¶[0045]). Even looking at the tag and "line of credit" disclosure of Nichols, nowhere does Nichols disclose, teach, or suggest "wherein a tag is coupled to a good of an order of goods" and "extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit," as in amended independent claim 1.

Amended independent claim 1 is patentable over Nichols. The other cited references do not cure the aforementioned deficiencies of Nichols.

Cova relates to "[t]echniques for monitoring and tracking assets and providing notifications to users." (Abstract). Cova discloses that "either the buyer 102 or the seller 104 sends a request to the tag provider 106 requesting tracking of the shipment of the asset 108 ... An example tag is the Savi Networks SN-LSE-01, which is a GPS-based Location+Security+Environmental tag." (¶[0020]). Further, "[t]he selected tag 114 can be coupled to the asset 108 before the asset begins its journey and/or re-coupled to the asset 108 during the journey (e.g., after authorized custom inspections)." (¶[0021]). Even looking at the tag and "GPS-based Location+Security+Environmental tag" disclosure of Cova, nowhere does Cova disclose, teach, or suggest "wherein a tag is coupled to a good of an order of goods" and "extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit," as in amended independent claim 1.

Amended independent claim 1 is patentable over Cova and Nichols.

Arnold relates to "[a] system and method for processing particulars of a transaction over a network." (Abstract). Arnold discloses that "supply chain event data or information 302 may comprise data or information about a product or good's location, condition, or other factor throughout the supply chain process. For example, the condition of a perishable item during shipment may be used to change terms or requirements (e.g., payment terms) of a trade transaction, such as the terms or requirements of a letter of credit, for example." (¶[0034]). Further, "supply chain payment engine or module 402 may also comprise modules that effect settlement or assurance 410 of a trade transaction. For example, in some embodiments, the supply chain payment engine or module 402 may gather data from the supply chain to enable trading partners to completely or partially settle entire transactions based on information gathered electronically or manually from the logistic events ... For example, a ⅓ payment may be made when the goods reach the port of exit, a ⅓ payment at midpoint, and a ⅓ payment when they get to the port of entry. In some embodiments, such payments may be arranged or effected through an automated clearinghouse (ACH) 412, wire 414, card network 416, or other payment system or method 418." (¶[0037]). Even looking at the "supply chain event data" and settlement criteria discloser of Arnold, nowhere does Arnold disclose, teach, or suggest "wherein a tag is coupled to a good of an order of goods" and "extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit," as in amended independent claim 1.

Amended independent claim 1 is patentable over Nichols, Cova, and Arnold. Blount does not cure the aforementioned deficiencies of these references. Blount relates to "[s]ystems and methods for providing supply chain financing that include receiving a request to finance an asset of a borrower, where the asset is associated with goods provided by a supplier to a buyer under the control of a supply chain/logistics entity." (Abstract). Blount does not disclose, teach,

or suggest "wherein a tag is coupled to a good of an order of goods" and "extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit," as in amended independent claim 1.

Therefore, amended independent claim 1 is patentable over the cited references. Claims 2-3 and 5-12 depend from claim 1 and are patentable for similar reasons.

Independent claim 13 has been amended to recite similar subject matter as claim 1. In particular, claim 13 has been amended to recite, in part:

> 13. A method comprising:
>
> receiving, by a transaction circuit of a financial institution computing system over a network through a network interface circuit, the transaction circuit including at least one processor and a memory, a transaction request relating to an order of goods and a tag from a seller computing system, wherein each tag comprises a Global Positioning System ("GPS") transceiver, and wherein the tag is coupled to a good of the order of goods;
>
> . . .
>
> receiving, by the transaction circuit, tag data over the network corresponding to a plurality of physical movements of the good, the tag data comprising GPS data, wherein each physical movement is based on a physical movement of the tag coupled to the good of the order of goods;
>
> determining, by the transaction circuit, a plurality of physical locations of the good of the order of goods using the GPS data; and
>
> determining, by the transaction circuit, an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance; and
>
> . . .

wherein performing the plurality of transactions includes extending [[the]]a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit,

wherein the first increment is reached in response to the tag data indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance and the second increment is reached in response to the tag data indicating the good of the order of goods moved a third predefined distance that is more than the second predefined distance and less than or equal to the total expected distance.

Therefore, amended independent claim 13 is patentable over the cited references. Claims 15 and 16 depend from claim 13 and are patentable for similar reasons.

Independent claim 17 has been amended to recite similar subject matter as claim 1. In particular, claim 17 has been amended to recite, in part:

> 17.   A non-transitory computer readable media having computer-executable instructions embodied therein that, when executed by a processor of a transaction circuit of a financial institution computing system, causes the financial institution computing system to perform operations comprising:
>
> receive a transaction request relating to an order of goods and a tag from a seller computing system over a network through a network interface circuit, wherein each tag comprises a Global Positioning System ("GPS") transceiver, and wherein the tag is coupled to a good of an order of goods;
>
> …
>
> receive tag data relating to a plurality of physical movements of the goods over the network, the tag data comprising GPS data, wherein

each physical movement is based on a physical movement of the tag coupled to the good of the order of goods;

determine an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance; and

perform a plurality of transactions pursuant to the transaction schedule based on the determined plurality of physical locations;

wherein the performance of the plurality of transactions includes extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit,

wherein the first increment is reached in response to the tag data indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance and the second increment is reached in response to by the tag data indicating the good of the order of goods moved a third predefined distance that is more than the second predefined distance and less than or equal to the total expected distance.

Therefore, amended independent claim 17 is patentable over the cited references. Claims 19 and 20 depend from claim 17 and are patentable for similar reasons.

Independent claim 21 has been amended to recite similar subject matter as claim 1. In particular, claim 21 has been amended to recite, in part:

21. A financial institution computing system, the system comprising:

a customer database configured to retrievably store information relating to a plurality of financial accounts including at least a financial account of a seller and a financial account of a buyer;

a tag database configured to retrievably store information relating to a plurality of tags associated with a plurality of orders, wherein each tag comprises a Global Positioning System ("GPS") transceiver, and wherein a tag is coupled to a good of an order of goods;

...

receive tag data corresponding to a plurality of physical movements of the good and update the user interface to allow each of the seller and the buyer to view information relating to the location of the good, the tag data comprising GPS data, wherein each physical movement is based on a physical movement of the tag coupled to the good of the order of goods;

determine a plurality of physical locations of the order of goods using the GPS data;

determine an initial line of credit that is less than the approved total amount of the line of credit based on the tag data indicating that the good of the order of goods moved a first predefined distance that is less than a total expected distance;

perform a plurality of transactions pursuant to the transaction schedule based on the determined plurality of physical locations; and

...

wherein the performance of the plurality of transactions includes extending a line of credit to the seller in a plurality of increments relative to the total amount of the line of credit based on the determined plurality of physical locations, the plurality of increments including a first increment that increases the line of credit extended to the seller up to a first amount that is more than the initial line of credit and less than the total approved amount of the line of credit and a second increment that increases the line of credit extended to the seller up to a second amount that is more than the first amount and less than or equal to the total approved amount of the line of credit,

wherein the first increment is reached in response to the tag data indicating the good of the order of goods moved a second predefined distance that is more than the first predefined distance but less than the total expected distance and the second increment is reached in response to the tag data indicating the good of the order of goods moved a third predefined distance that is more than the second predefined distance and less than or equal to the total expected distance.

Therefore, amended independent claim 21 is patentable over the cited references. Claims 22-24 depend from claim 21 and are patentable for similar reasons.

Concluding Remarks

It is submitted that each outstanding objection and rejection to the present application has been overcome, and that the present application is in condition for allowance. Applicant requests consideration and allowance of all pending claims.

It should also be noted that although Applicant has only addressed certain claims or claimed features herein, other claims, features, or combinations of features may also be patentable for additional reasons. Further, the failure to address any statement by the Examiner should not be interpreted as acquiescence or agreement with such statement. Applicant expressly reserves the right to rebut any statement presented by the Examiner and to set forth additional and/or alternative reasons for patentability during prosecution of the present application or in any other future proceeding.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance prosecution.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this Application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

4825-9987-5772.1

Respectfully submitted,

Date /6-8-2020/   By /Alexander J. Neuworth/

FOLEY & LARDNER LLP   Alexander J. Neuworth
Customer Number: 78740   Attorney for Applicant
Telephone: (414) 319-7029   Registration No. 72,021
Facsimile: (414) 297-4900