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No. 2018-2311

In the United States Court of Appeals For the Federal Circuit

IN RE: CHARLES T. FOTE,

Appellant.

On Appeal from the Patent Trial and Appeal Board
Appeal No. 2017-003210

JOINT APPENDIX

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHARLES T. FOTE

Appeal 2017-003210
Application 14/455,526[1]
Technology Center 3600

Before HUBERT C. LORIN, NINA L. MEDLOCK, and BRADLEY B. BAYAT, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Charles T. Fote (Appellant) seeks our review under 35 U.S.C. § 134(a) of the Final Rejection of claims 3–5 and 8. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

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[1] The Appellant identifies Fotec Group LLC as the real party in interest. Br. 4.

THE INVENTION

Claim 8, reproduced below, is illustrative of the subject matter on appeal.

8. A telecommunication system comprising:

a) an electronic communication device connected to and configured for communication over a telecommunication network, the electronic device comprising:

a device communication facility permitting communication over the telecommunication network via a secure session; and

a processor configured for running a secure application for (i) authenticating or obtaining authentication information from a payer, (ii) communicating via secure sessions and accessing secure databases, (iii) receiving payee identifying and real account and financial institution information, (iv) receiving a selection by the payer of a funding source and at least one real account associated with the payer, and (v) receiving a selection by the payer of at least one real account and financial institution associated with the payee;

b) a brokerage server, operated by a payment broker and connected to and configured for communication over the telecommunication network, the brokerage server comprising:

a server communication facility permitting communication over the telecommunication network via a secure session;

a computer memory comprising a secure database; and

a processor configured for (i) receiving authentication information via the telecommunication network using the server communication facility, (ii) authenticating and identifying the payer based on the authentication information, (iii) receiving, via the telecommunication network using the server communication facility, an instruction from the payer instructing that a payment be made electronically from the payer-selected funding source and at least one payer-selected real account thereof to a payer-selected real account and financial institution, other than the payment broker, associated

with the payee, the selection of the real account and financial institution associated with the payee being controlled by the payer and not by the payee, (iv) computationally retrieving, from the secure database, information identifying the payer-selected funding source and the at least one payer-selected real account thereof and the payee and the payer-selected real account of the payee at a financial institution other than the payment broker, (v) requesting, via the telecommunication network using the server communication facility, the server of the payer-selected funding source to authorize the payment to the payee, (vi) if the payment is authorized by the server of the payer-selected funding source, instructing such server, via the telecommunication network using the server communication facility, to cause the payment to be made electronically to the payee on the funding source's behalf by a third party other than the payment broker such that the identities of the payer-selected funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee and such real account identifying information is not transmitted to, received or stored by the payee's depository bank or other financial institution, and (vii) instructing the server of the payer selected funding source, via the telecommunication network using the server communication facility, to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source;

and

c) a funding source server, operated by a payer-selected funding source and connected to and configured for communication over the telecommunication network, the funding source server comprising:

a server communication facility permitting communication over the telecommunication network;

a computer memory comprising a secure database; and

a processor configured for (i) receiving, via the telecommunication network using the server communication facility, the request from the payment broker server for

> authorization of the payment, (ii) computationally retrieving, from a secure database, information identifying the payer and the at least one payer-selected real account of the payer at the funding source, (iii) authorizing or denying the requested payment, (iv) in response to instruction from the payment broker server following authorization, instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third party's name and not in the name of the payment broker, the funding source or the payer, thereby preventing divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer, and (v) reimbursing or transferring the amount of the payment to the third party from the at least one payer selected real account of the payer at the funding source.

THE REJECTION[2]

The following rejection is before us for review:

Claims 3–5 and 8 are rejected under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

ISSUE

Did the Examiner err in rejecting claims 3–5 and 8 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter?

ANALYSIS

The rejection of claims 3–5 and 8 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

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[2] The Examiner withdrew the rejection under 35 U.S.C. § 103 (Ans. 2).

The Appellant argues these claims as a group. *See* Appeal Br. 7–17; *see also*, Reply Br. 2–6. We select claim 8 as the representative claim for this group, and the remaining claims 3–5 stand or fall with claim 8. 37 C.F.R. § 41.37(c)(1)(iv).

Alice Corp. Proprietary Ltd. v. CLS Bank International, 134 S. Ct. 2347 (2014), identifies a two-step framework for determining whether claimed subject matter is judicially excepted from patent-eligibility under 35 U.S.C. § 101.

According to *Alice* step one, "[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept," such as an abstract idea. *Alice*, 134 S. Ct. at 2355.

In that regard, the Examiner determined that the claims are directed to "the abstract idea of electronic fund transfer using a third party," and that that is similar to the abstract idea identified in *Alice*. Final Act. 3. According to the Examiner, "[t]he invention simply uses a third party/intermediary rather than a traditional payment broker to facilitate electronic payment to a payee from a payer's funding source." Ans. 3.

The Appellant challenges the Examiner's determination that the concepts to which claim 8 is directed are abstract ideas. According to the Appellant,

> The recited device and servers intercommunicate over a telecommunication network in a specific fashion to preclude divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the payer's funding source and the payer-selected real account(s) of the payer in the course of a payment transaction.

Appeal Br. 8. According to the Appellant, this feature of claim 8 cannot be considered abstract because "[i]f this is 'abstract,' it is difficult to imagine what claim could escape that fatal designation . . ." *Id.*

Claim 8 recites a funding source server processor configured for, *inter alia*:

> instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third party's name and not in the name of the payment broker, the funding source or the payer, thereby preventing divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer . . .

Appeal Br. 20 (Claims Appendix). In other words, the invention prevents divulgation of payer information by instructing "at least one third party" to act as an intermediary between the payer and the payee in the course of making a payment electronically.

We see little difference between the claimed use of "at least one third party" to prevent divulgation of information and "the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk." *Alice,* 134 S. Ct. at 2356. The similarities are readily apparent. The Court in *Alice* described the claimed invention as follows:

> Petitioner's claims involve a method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk. The intermediary creates and updates "shadow" records to reflect the value of each party's actual accounts held at "exchange institutions," thereby permitting only those transactions for which the parties have

> sufficient resources. At the end of each day, the intermediary issues irrevocable instructions to the exchange institutions to carry out the permitted transactions.

Id. Like the invention in *Alice*, claim 8 involves exchanging financial obligations between two parties (i.e., between actual accounts of the two parties) using a third-party intermediary. And like the invention in *Alice*, claim 8 involves computer systems for implementing electronic financial transactions, the transactions carried out by issuing instructions to a third-party intermediary ("instructing . . . at least one third party . . . to make the payment electronically to the payee from a real account of the third party"). We see no meaningful distinction between the concept of intermediated settlement at issue in *Alice* and the concept of intermediated payment at issue here.

The Appellant argues that the claims before us are similar to the claims in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016), where claims directed to the use of a self-referential table for a computer database were held patent-eligible. Appeal Br. 10. According to the Appellant, "the present claims likewise recite a specific implementation of a solution to a problem in the art and practice of electronic commerce." *Id.*

The argument is unpersuasive.

The court in *Enfish* put the question as being "whether the focus of the claims is on [a] specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." *Enfish*, 822 F.3d at 1335–36. The court found that the "plain focus of the claims" there was on "an

improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity." *Id.* at 1336.

The Specification belies the Appellant's argument that the claimed subject matter does not merely use generic computers as a tool or that their functioning is improved by the claimed scheme. Claim 8 nominally defines a system comprising three different computer components (a, b, and c) and two secure databases (in b and c). The Specification discloses the claimed computers in functional terms as being "a general purpose computer . . . or any other device or arrangement of devices that is capable of implementing the steps of the processes of the invention." (Spec. 16, ll. 1–9). The Specification does not disclose a new type of secure database or that the database stores records in any assertedly inventive way. Rather, the Specification merely discloses the use of "one or more databases having multiple records for payers and payees" (*Id.* at 5, ll. 27–28). Thus, the Specification supports the view that these elements are simply conventional computer components as a conduit for the performance of a scheme for making electronic payments.

In view of the above, we see no error in the Examiner's determination that claim 8 is directed to an abstract idea.

Step two of the *Alice* framework is "a search for an 'inventive concept'—*i.e.,* an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.'" *Alice*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

In that regard, the Examiner determined that "[t]he claims recite additional limitations of using an electronic device, broker server, and a funding source server in a network" and that these components "simply perform the generic computer functions of receiving, processing and transmitting information." Final Act. 3. According to the Examiner, "[t]he claims at issue do not require any nonconventional computer, network, or database components, or even a 'non-conventional and non-generic arrangement of known, conventional pieces,' but merely call for performance of the claimed facilitation of EFT functions 'on a set of generic computer components.'" Ans. 4 (quoting *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349–50 (Fed. Cir. 2016)).

The Appellant argues that the claims are similar to the claims held eligible in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). Appeal Br. 11–13. According to the Appellant, "[p]ayments made electronically over telecommunication networks, by contrast, present vulnerabilities unknown and inapplicable to such conventional [non-electronic] arrangements" such as "'man in the middle' attacks," wherein "malicious actors acquire information from both the payer and the payer's funding source, and piece these together to masquerade as one of the end parties." *Id.* at 12. The Appellant contends that:

> This invention, like the "network-centric" invention in *DDR*, addresses these network-based security holes by (i) authenticating the payer and obtaining information using a secure application, communicating via secure sessions and using secure databases, (ii) allowing the payer to select the payee account and financial institution to which the electronic payment to the payee will be made, (iii) ensuring that the payment destination is a third party other than the payment

> broker (which could compromise information), and (iv) requiring that the electronic payment to the payee originate from a real account and financial institution associated with a third party other than the payment broker or the payer's funding source and in the third party's name. Thus, this is a network-based solution to a network-based problem, with specific operations that are only meaningful over a network; it is not a basic financial transaction that happens to be carried out over a network as a generic alternative to traditional channels.

Id. at 12–13.

In *DDR Holdings*, the Federal Circuit determined that although the patent claims at issue involved conventional computers and the Internet, the claims nevertheless addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of the Internet hyperlink protocol, would be transported instantly away from a host's website after "clicking" on an advertisement and activating a hyperlink. *DDR Holdings*, 773 F.3d at 1257. The court determined that those claims were directed to statutory subject matter because they claim a solution "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.*

No such technological advance is evident in the claimed invention. Unlike the situation in *DDR Holdings*, the claimed computer components operate precisely in the expected manner of storing data in association with other data, and sending and receiving data via a conventional network. (*See* Spec, 14, ll. 4–5 ("the Internet and/or any other land-based or wireless telecommunication network or system).")). *Cf. buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("That a computer receives and sends the information over a network--with no further specification--is not

even arguably inventive"). Nothing in the claim, understood in light of the Specification, requires anything more than conventional computer implementation. "The [S]pecification fails to provide any technical details for the tangible components, but instead predominately describes the system and methods in purely functional terms." *In re TLI Commc'ns. LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016). For example, with respect to the claimed step of "authenticating and identifying the payer based on the authentication information," the Appellant's Specification simply discloses:

> Any suitable authentication method or technology may be used, including but not restricted to, authentication via password/PIN entry and/or biometrics, digital signature functionality, or other two factor or three factor authentication all local to the electronic device, as well as additional known authentication processes at the payment broker's server to ensure that the payer, electronic device, software application and designated payee are properly authenticated so that the processing and completion of the requested payment transaction can continue.

Spec. 16, l. 25 – 17, l. 4. There is no detail as to how the authentication process is programmed or performed by the computer beyond the use of these "known authentication processes." "[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible." *DDR Holdings*, 773 F.3d at 1256 (citation omitted).

Moreover, authentication, per se, is an abstract idea. *See EasyWeb Innovations, LLC v. Twitter, Inc.*, 2016 WL 1253674 (E.D.N.Y. 2016), *aff'd*, No. 2016-2335 (Fed. Cir. 2017) ("receiving, authenticating, and publishing data" is an abstract idea.) Claims that include authentication steps have been found patent-ineligible. *See* e.g., *Intellectual Ventures I LLC v. J. Crew*

Group, Inc., 703 F. App'x 991 (Mem.) (Fed. Cir. 2017); *Front Row Technologies LLC v. MLB Advanced Media, L.P.*, 697 F. App'x 701 (Mem.) (Fed. Cir. 2017); *GoDaddy.com LLC v. RPost Communications Limited*, 685 F. App'x 992 (Mem.) (Fed. Cir. 2017); *Clarilogic, Inc. v. FormFree Holdings Corporation*, 681 F. App'x 950 (Fed. Cir. 2017); *Morsa v. Facebook, Inc.*, 622 F. App'x. 915 (Mem.) (Fed. Cir. 2015); and *Prism Technologies LLC v. T-Mobile USA, Inc.*, 696 F. App'x. 1014 (Fed. Cir. 2017).

Merely combining several abstract ideas does not render the combination any less abstract. *Cf. Shortridge v. Found. Constr. Payroll Serv.*, LLC, No. 14-CV-04850-JCS, 2015 WL 1739256, *11 (N.D. Cal. Apr. 14, 2015), *aff'd*, No. 2015-1898, 2016 WL 3742816 (Fed. Cir. July 13, 2016).

We also cannot agree with the Appellant that the claims before us are similar to those in *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). *See* Appeal Br. 14–17. The Appellant contends that the claims are similar to the invention in *Bascom* because "the claims recite three intercommunicating devices, their operational components, the specific manner in which they are configured to interact and the particular data and instructions they are configured to receive and transmit." *Id.* at 14.

This argument is unpersuasive.

In *Bascom*, the court determined that "an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces." *Bascom*, 827 F.3d at 1350. Specifically, Bascom's content filter could be "installed remotely in a single location" and "this

particular arrangement of elements is a technical improvement over the prior art ways of filtering." *Id.*

That the claim requires three devices configured for communicating "particular data and instructions" via a network is not enough to transform the abstract idea into a patent-eligible invention. *Cf. In re Salwan*, 681 F. App'x 938, 941 (Fed. Cir. 2017) ("Given that the claims are directed to well-known business practices, the claimed elements of a generic "network," "computer program," "central server," "device," and "server for processing and transferring" are simply not enough to transform the abstract idea into a patent-eligible invention."). In our view, the invention before us is more similar to the claimed invention in *Alice* than *Bascom*. Indeed, Alice Corporation made a similar argument as the Appellant makes here. *See Alice*, 134 S. Ct. at 2360:

> As to its system claims, petitioner emphasizes that those claims recite "specific hardware" configured to perform "specific computerized functions." Brief for Petitioner 53. But what petitioner characterizes as specific hardware—a "data processing system" with a "communications controller" and "data storage unit," for example, *see* App. 954, 958, 1257—is purely functional and generic. Nearly every computer will include a "communications controller" and "data storage unit" capable of performing the basic calculation, storage, and transmission functions required by the method claims. *See* 717 F.3d, at 1290 (Lourie, J., concurring). As a result, none of the hardware recited by the system claims "offers a meaningful limitation beyond generally linking 'the use of the [method] to a particular technological environment,' that is, implementation via computers." *Id.*, at 1291 (quoting *Bilski*, 561 U.S., at 610–611, 130 S. Ct. 3218).

Taking the claim elements separately, the function performed by the computers at each step is purely conventional. Communicating/receiving

data, authenticating information, storing/retrieving data via databases, and issuing instructions are basic computer functions. In short, each step does no more than require a generic computer to perform routine computer functions. Each element acts a conduit for the performance of its corresponding common function. *Cf. In re TLI Commc'ns.*, 823 F.3d at 612.

> Put differently, the telephone unit itself is merely a conduit for the abstract idea of classifying an image and storing the image based on its classification. Indeed, the specification notes that it "is known" that "cellular telephones may be utilized for image transmission," id. at col. 1 ll. 31–34, and existing telephone systems could transmit pictures, audio, and motion pictures and also had "graphical annotation capability," id. at col. 1 ll. 52–59.

Cf. also Credit Acceptance Corp. v. Westlake Services, LLC, 859 F.3d 1044, 1057 (Fed. Cir. 2017):

> Significantly, the claims do not provide details as to any non-conventional software for enhancing the financing process. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017) (explaining that "[o]ur law demands more" than claim language that "provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it"); *Elec. Power Grp.*, 830 F.3d at 1354 [*Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016)]; (explaining that claims are directed to an abstract idea where they do not recite "any particular assertedly inventive technology for performing [conventional] functions").

Considered as an ordered combination, the computer components of Appellant's system add nothing that is not already present when the components are considered separately. The claim does not, for example, purport to improve the functioning of any computer. Nor does it effect an improvement in any other technology or technical field. Instead, the claim at issue amounts to nothing significantly more than an instruction to

communicate information and issue instructions using a generic computer. That is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2360.

The Appellant argues that the claims are novel and nonobvious over the prior art cited by the Examiner, and that this demonstrates that the claims are not merely conventional. Appeal Br. 15. *See also*, Reply Br. 4 ("the claims recite an arrangement sufficiently unconventional to be patentable over prior art cited by the Examiner and concerned with similar problems in the same domain.")

However, a finding of novelty or nonobviousness does not necessarily lead to the conclusion that subject matter is patent-eligible. "Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117 (2013). *See* especially *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1315 (Fed. Cir. 2016):

> Indeed, "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of *no relevance* in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Diamond v. Diehr*, 450 U.S. 175, 188–89, 101 S. Ct. 1048, 67 L.Ed.2d 155 (1981) (emphasis added); *see also Mayo*, 132 S. Ct. at 1303–04 (rejecting "the Government's invitation to substitute §§ 102, 103, and 112 inquiries for the better established inquiry under § 101"). Here, the jury's general finding that Symantec did not prove by clear and convincing evidence that three particular prior art references do not disclose all the limitations of or render obvious the asserted claims does not resolve the question of whether the claims embody an inventive concept at the second step of *Mayo/Alice*.

The Appellant argues that the claims do not pre-empt others from using an abstract idea as evidenced by the alternative approaches to

preventing divulgation of sensitive payer information disclosed by the prior art cited by the Examiner. Appeal Br. 15.

It is true that the Supreme Court has characterized pre-emption as a driving concern for patent eligibility. *See Alice*, 134 S. Ct. at 2354. But characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing pre-emption as the sole test for patent eligibility. "The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability" and "[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice Corp.*, 134 S. Ct. at 2354). However, "[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.* at 1379. *Cf. OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) ("[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract."). "What matters is whether a claim threatens to subsume the full scope of a fundamental concept, and when those concerns arise, we must look for meaningful limitations that prevent the claim as a whole from covering the concept's every practical application." *CLS Bank Intern. v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1281 (Fed. Cir. 2013) (Lourie, J., concurring). Here, we find the claimed subject matter covers patent-ineligible subject matter. Accordingly, the pre-emption concern is necessarily addressed. "Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, [] preemption

concerns are fully addressed and made moot." *Ariosa Diagnostics*, 788 F.3d at 1379.

The Appellant's arguments challenging the Examiner's determination that claim 8 does not add anything significantly more to transform the combination of abstract ideas to which it is directed into an inventive concept are unpersuasive.

We have considered all of the Appellant's remaining arguments and have found them unpersuasive. Accordingly, because representative claim 8 and claims 3–5, which stand or fall with claim 8, are directed to an abstract idea and do not present an "inventive concept," we sustain the Examiner's determination that they are directed to ineligible subject matter under 35 U.S.C. § 101. *Cf. LendingTree, LLC v. Zillow, Inc.*, 656 F. App'x 991, 997 (Fed. Cir. 2016) ("We have considered all of LendingTree's remaining arguments and have found them unpersuasive. Accordingly, because the asserted claims of the patents in suit are directed to an abstract idea and do not present an 'inventive concept,' we hold that they are directed to ineligible subject matter under 35 U.S.C. § 101.").

The rejection is sustained.

DECISION

The decision of the Examiner to reject claims 3–5 and 8 is affirmed.

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

AFFIRMED

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

October 9, 2018
(Date)

THIS IS TO CERTIFY that the attached document is a list of the contents of the electronic file of the Patent Application identified below; said contents being a list of the papers comprising the record before the United States Patent and Trademark Office for the Application of:

Applicant:	**Charles T. Fote**
Application No.:	**14/455,526**
Filed:	**August 8, 2014**
Title of Invention:	**Broker-Mediated Payment Systems and Methods**

By authority of the

DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

Certifying Officer

Prosecution History for Application No. 14/455,526

Date	Document
08/08/2014	Transmittal of New Application
08/08/2014	First Action Interview - Enrollment Request
08/08/2014	Nonpublication request from applicant
08/08/2014	Drawings-only black and white line drawings
08/08/2014	Application Data Sheet
08/08/2014	Fee Worksheet (SB06)
08/08/2014	EFS Acknowledgment Receipt
08/08/2014	Specification
08/08/2014	Claims
08/08/2014	Abstract
08/08/2014	TrackOne Request
08/08/2014	Fee Worksheet (SB06)
08/21/2014	Fee Worksheet (SB06)
08/21/2014	Filing Receipt
08/21/2014	Miscellaneous Communication to Applicant - No Action Count
08/21/2014	Email Notification
08/21/2014	TrackOne Request Granted
08/27/2014	Email Notification
09/10/2014	Transmittal Letter
09/10/2014	Oath or Declaration filed
09/10/2014	EFS Acknowledgment Receipt
09/29/2014	Information Disclosure Statement (IDS) Form (SB08)
09/29/2014	EFS Acknowledgment Receipt
09/29/2014	Transmittal Letter
11/06/2014	Information Disclosure Statement (IDS) Form (SB08)
11/06/2014	EFS Acknowledgment Receipt
12/23/2014	Non-Final Rejection
12/23/2014	Email Notification
03/04/2015	Terminal Disclaimer-Filed (Electronic)
03/04/2015	Fee Worksheet (SB06)
03/04/2015	Terminal Disclaimer-Electronic-Approved
03/04/2015	EFS Acknowledgment Receipt
03/04/2015	Information Disclosure Statement (IDS) Form (SB08)
03/04/2015	Fee Worksheet (SB06)
03/04/2015	EFS Acknowledgment Receipt

Date	Document
03/04/2015	Amendment/Req. Reconsideration-After Non-Final Reject
03/04/2015	Transmittal Letter
03/04/2015	Claims
03/04/2015	Applicant Arguments/Remarks Made in an Amendment
03/04/2015	Fee Worksheet (SB06)
03/05/2015	Filing Receipt
03/05/2015	Email Notification
03/13/2015	Information Disclosure Statement (IDS) Form (SB08)
03/13/2015	Information Disclosure Statement (IDS) Form (SB08)
03/13/2015	Fee Worksheet (SB06)
03/13/2015	EFS Acknowledgment Receipt
04/02/2015	Final Rejection
04/02/2015	Email Notification
05/15/2015	Request for Continued Examination (RCE)
05/15/2015	Fee Worksheet (SB06)
05/15/2015	EFS Acknowledgment Receipt
05/15/2015	Amendment Submitted/Entered with Filing of CPA/RCE
05/15/2015	Claims
05/15/2015	Applicant Arguments/Remarks Made in an Amendment
05/15/2015	Fee Worksheet (SB06)
11/25/2015	Non-Final Rejection
11/25/2015	Examiner's search strategy and results
11/25/2015	Email Notification
05/06/2016	EFS Acknowledgment Receipt
05/06/2016	Amendment/Req. Reconsideration-After Non-Final Reject
05/06/2016	Applicant Arguments/Remarks Made in an Amendment
05/06/2016	Claims
05/06/2016	Fee Worksheet (SB06)
05/06/2016	Extension of Time
05/06/2016	Fee Worksheet (SB06)
06/17/2016	Final Rejection
06/17/2016	Email Notification
07/05/2016	Response After Final Action
07/05/2016	Claims
07/05/2016	Applicant Arguments/Remarks Made in an Amendment
07/05/2016	EFS Acknowledgment Receipt
07/05/2016	Fee Worksheet (SB06)

Date	Document
07/13/2016	Advisory Action (PTOL-303)
07/13/2016	Email Notification
07/14/2016	Notice of Appeal Filed
07/14/2016	Fee Worksheet (SB06)
07/14/2016	EFS Acknowledgment Receipt
09/16/2016	Appeal Brief Filed
09/16/2016	Extension of Time
09/16/2016	Fee Worksheet (SB06)
09/16/2016	EFS Acknowledgment Receipt
10/28/2016	Examiner's Answer to Appeal Brief
10/28/2016	Email Notification
12/15/2016	Reply Brief Filed
12/15/2016	Fee Worksheet (SB06)
12/15/2016	EFS Acknowledgment Receipt
01/18/2017	Appeal Docketing Notice
01/18/2017	Email Notification
06/29/2018	Patent Board Decision - Examiner Affirmed
06/29/2018	Email Notification
08/23/2018	Notice of Appeal Filed
08/23/2018	Affidavit/Dec/Exhibit after Notice of Appeal
08/23/2018	EFS Acknowledgment Receipt
08/23/2018	Notice of Appeal Filed
08/23/2018	Affidavit/Dec/Exhibit after Notice of Appeal
08/27/2018	Notice of Appeal Filed

CLAIMS APPENDIX

1. (Canceled)

2. (Canceled)

3. The telecommunication system of claim 8, wherein the brokerage server communicates with the payer via a secure session over the telecommunication network using a hand-held payer electronic device.

4. The telecommunication system of claim 8, wherein the brokerage server communicates with the payee via a secure session over the telecommunication network using a payee electronic device.

5. The telecommunication system of claim 8, wherein the brokerage server database comprises a plurality of records for payers and payees, each payer record comprising authentication information and at least one funding source and one real account associated with the payer, and each payee record comprises at least identification information associated with the payee and at least one financial institution and at least one real account associated with the payee.

6. (Canceled)

7. (Canceled)

8. A telecommunication system comprising:

a) an electronic communication device connected to and configured for communication over a telecommunication network, the electronic device comprising:

a device communication facility permitting communication over the telecommunication network via a secure session; and

a processor configured for running a secure application for (i) authenticating or obtaining authentication information from a payer, (ii) communicating via secure sessions and accessing secure databases, (iii) receiving payee identifying and real account and financial institution information, (iv) receiving a selection by the payer of a funding source and at least one real account associated with the payer, and (v) receiving a selection by the payer of at least one real account and financial institution associated with the payee;

b) a brokerage server, operated by a payment broker and connected to and configured for communication over the telecommunication network, the brokerage server comprising:

a server communication facility permitting communication over the telecommunication network via a secure session;

a computer memory comprising a secure database; and

a processor configured for (i) receiving authentication information via the telecommunication network using the server communication facility, (ii) authenticating and identifying the payer based on the authentication information, (iii) receiving, via the telecommunication network using the server communication facility, an instruction from the payer instructing that a payment be made electronically from the payer-selected funding source and at least one payer-selected real account thereof to a payer-selected real account and financial institution, other than the payment broker, associated with the payee, the selection of the real account and financial institution associated with the payee being controlled by the payer and not by the payee, (iv) computationally retrieving, from the secure database, information identifying the payer-selected funding source and the at least one payer-selected real account thereof and the payee and the payer-selected real account of the payee at a financial institution other than the payment broker, (v) requesting, via the telecommunication network using the server communication facility, the server of the payer-selected funding source to authorize the payment to the payee, (vi) if the payment is authorized by the server of the payer-selected funding source, instructing such server, via the telecommunication network using the server communication facility, to cause the payment to be made electronically to the payee on

the funding source's behalf by a third party other than the payment broker such that the identities of the payer-selected funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee and such real-account identifying information is not transmitted to, received or stored by the payee's depository bank or other financial institution, and (vii) instructing the server of the payer-selected funding source, via the telecommunication network using the server communication facility, to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source; and

c) a funding source server, operated by a payer-selected funding source and connected to and configured for communication over the telecommunication network, the funding source server comprising:

a server communication facility permitting communication over the telecommunication network,

a computer memory comprising a secure database; and

a processor configured for (i) receiving, via the telecommunication network using the server communication facility, the request from the payment broker server for authorization of the payment, (ii) computationally retrieving, from a secure database, information identifying the payer and the at least one payer-selected real account of the payer at the funding source, (iii) authorizing or denying the requested payment, (iv) in response to instruction from the payment broker server following authorization, instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third party's name and not in the name of the payment broker, the funding source or the payer, thereby preventing divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer, and (v) reimbursing or transferring the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source.

PTO/AIA/15 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	FOT-002C1
First Named Inventor	Charles T. Fote
Title	BROKER-MEDIATED PAYMENT SYSTEMS AND METHODS
Express Mail Label No.	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☐ **Fee Transmittal Form** (PTO/SB/17 or equivalent)
2. ☑ **Applicant asserts small entity status.** See 37 CFR 1.27
3. ☐ **Applicant certifies micro entity status.** See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent.
4. ☑ **Specification** [*Total Pages* 51] Both the claims and abstract must start on a new page. *(See MPEP § 608.01(a) for information on the preferred arrangement)*
5. ☑ **Drawing(s)** (35 U.S.C. 113) [*Total Sheets* 4]
6. **Inventor's Oath or Declaration** [*Total Pages* ____] *(including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))*
   a. ☐ Newly executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63(d))
7. ☑ **Application Data Sheet** ** See note below.* See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
8. **CD-ROM or CD-R** in duplicate, large table, or Computer Program (*Appendix*)
   ☐ Landscape Table on CD
9. **Nucleotide and/or Amino Acid Sequence Submission** (*if applicable, items a. – c. are required*)
   a. ☐ Computer Readable Form (CRF)
   b. ☐ Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ADDRESS TO: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**

ACCOMPANYING APPLICATION PAPERS

10. ☐ **Assignment Papers** (cover sheet & document(s))
    Name of Assignee _____
11. ☐ **37 CFR 3.73(c) Statement** (*when there is an assignee*) ☐ **Power of Attorney**
12. ☐ **English Translation Document** (*if applicable*)
13. ☐ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☐ Copies of citations attached
14. ☐ **Preliminary Amendment**
15. ☐ **Return Receipt Postcard** (*MPEP § 503*) (*Should be specifically itemized*)
16. ☐ **Certified Copy of Priority Document(s)** (*if foreign priority is claimed*)
17. ☑ **Nonpublication Request** Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
18. ☑ **Other:** Certification and Request for Prioritized Examination Request for First Action Interview (Full Pilot Program)

Note*: (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS

☑ The address associated with Customer Number: 23517 **OR** ☐ Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	

Signature	/Steven J. Frank/	Date	August 8, 2014
Name (Print/Type)	Steven J. Frank	Registration No. (Attorney/Agent)	33,497

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

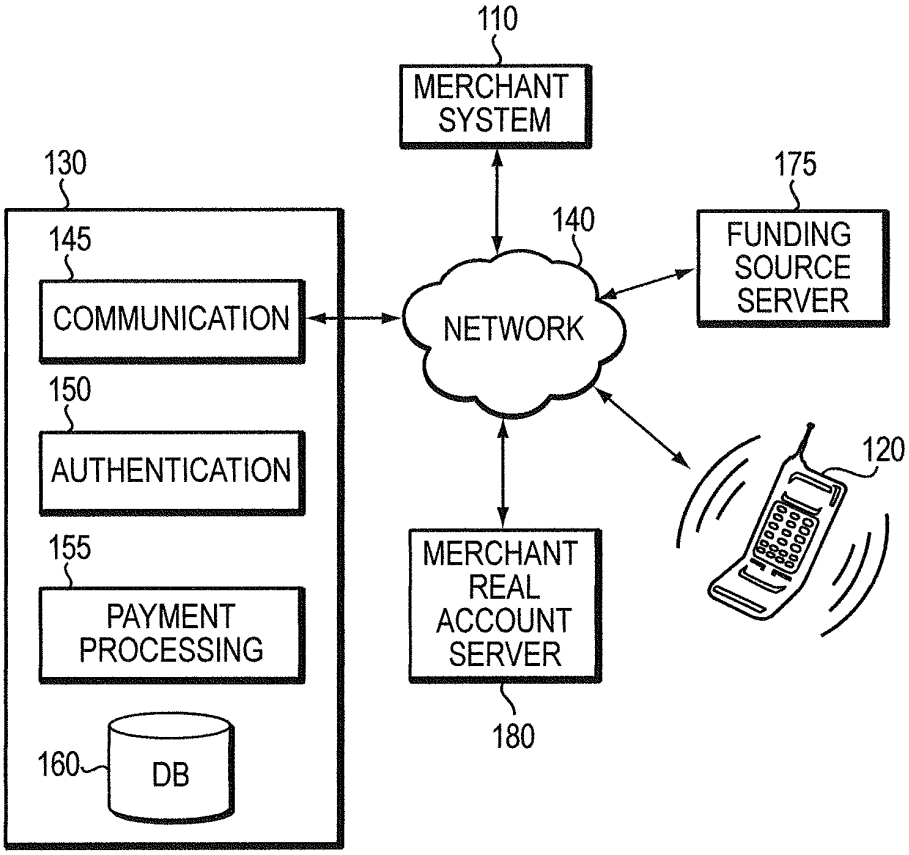
110
MERCHANT SYSTEM
130
145
COMMUNICATION
150
AUTHENTICATION
155
PAYMENT PROCESSING
160
DB
140
NETWORK
175
FUNDING SOURCE SERVER
120
MERCHANT REAL ACCOUNT SERVER
180

FIG. 1

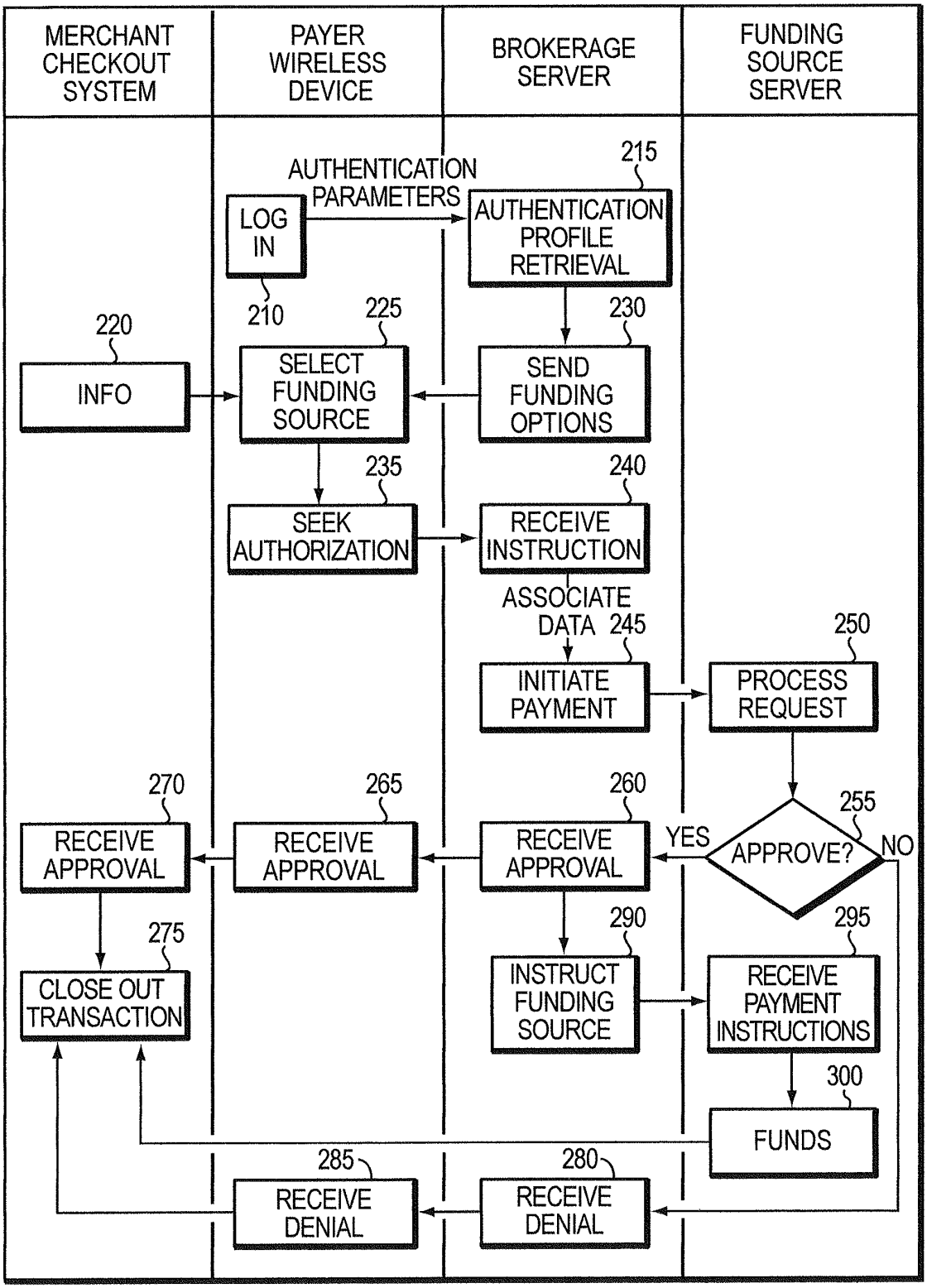
MERCHANT CHECKOUT SYSTEM
PAYER WIRELESS DEVICE
BROKERAGE SERVER
FUNDING SOURCE SERVER
AUTHENTICATION PARAMETERS
215
LOG IN
AUTHENTICATION PROFILE RETRIEVAL
210
225
230
220
INFO
SELECT FUNDING SOURCE
SEND FUNDING OPTIONS
235
240
SEEK AUTHORIZATION
RECEIVE INSTRUCTION
ASSOCIATE DATA
245
250
INITIATE PAYMENT
PROCESS REQUEST
270
265
260
255
RECEIVE APPROVAL
RECEIVE APPROVAL
RECEIVE APPROVAL
YES
APPROVE?
NO
290
295
275
CLOSE OUT TRANSACTION
INSTRUCT FUNDING SOURCE
RECEIVE PAYMENT INSTRUCTIONS
300
FUNDS
285
280
RECEIVE DENIAL
RECEIVE DENIAL

FIG. 2

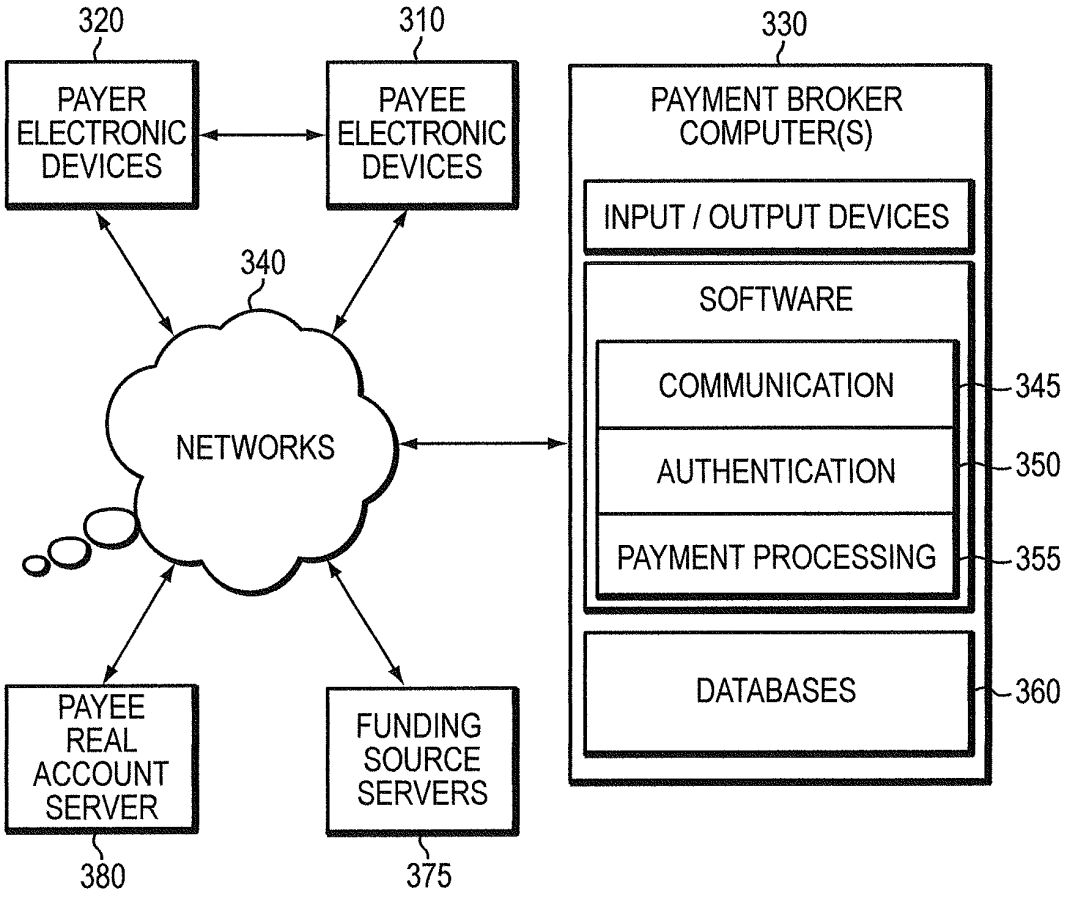
320
310
330
PAYER ELECTRONIC DEVICES
PAYEE ELECTRONIC DEVICES
PAYMENT BROKER COMPUTER(S)
INPUT / OUTPUT DEVICES
340
SOFTWARE
COMMUNICATION
345
NETWORKS
AUTHENTICATION
350
PAYMENT PROCESSING
355
DATABASES
360
PAYEE REAL ACCOUNT SERVER
FUNDING SOURCE SERVERS
380
375

FIG. 3

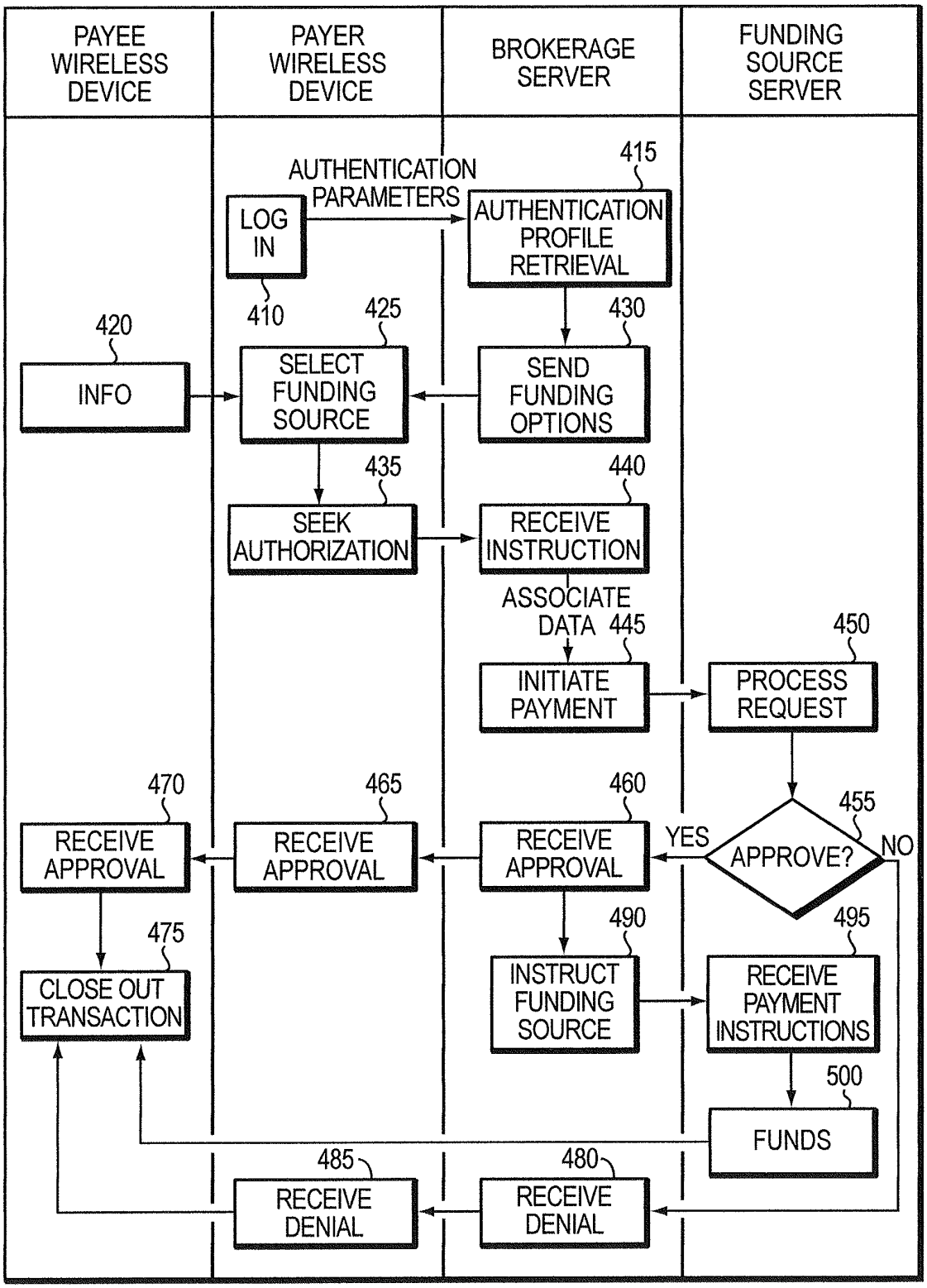
PAYEE WIRELESS DEVICE
PAYER WIRELESS DEVICE
BROKERAGE SERVER
FUNDING SOURCE SERVER
AUTHENTICATION PARAMETERS
LOG IN
410
415
AUTHENTICATION PROFILE RETRIEVAL
420
INFO
425
SELECT FUNDING SOURCE
430
SEND FUNDING OPTIONS
435
SEEK AUTHORIZATION
440
RECEIVE INSTRUCTION
ASSOCIATE DATA
445
INITIATE PAYMENT
450
PROCESS REQUEST
455
APPROVE?
YES
NO
460
RECEIVE APPROVAL
465
RECEIVE APPROVAL
470
RECEIVE APPROVAL
475
CLOSE OUT TRANSACTION
490
INSTRUCT FUNDING SOURCE
495
RECEIVE PAYMENT INSTRUCTIONS
500
FUNDS
480
RECEIVE DENIAL
485
RECEIVE DENIAL

FIG. 4

Information:					
7	Application Data Sheet	WebADS.pdf	101659 2dcfc86537d936d559b9f1005c119f01700fbf5c	no	6
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	40435 ea6cbad4147a3428d2b16478166355aa11fc81d1	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	1436820	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Broker-Mediated Payment Systems and Methods

CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation of and claims priority to U.S. Patent Application No. 14/048,428 (filed on October 8, 2013). The foregoing application is incorporated herein by reference in it entirety.

FIELD OF THE INVENTION

The invention generally relates to systems and methods for payer-controlled payment transactions where a payer wishes to make or cause a payment to be made to or for the benefit of a payee.

BACKGROUND OF THE INVENTION

Today's payment systems and methods are dominated by legacy cash-based, check-based or credit or debit account or card payment concepts, and implementations based upon those concepts are manifest in typical point of sale ("POS") and electronic payment environments. Payment transactions handled by these legacy systems can relate to the payment for goods or services purchased by the payer (whether in traditional POS transactions or otherwise) or to other types of payments made by the payer.

Despite the advances in the supporting technology, the primary model for payment transactions has not changed substantially. For instance, the main relationships in the current purchasing/payment model using checks or credit or debit accounts or cards are between (a) a merchant and an acquiring financial institution, and (b) a purchaser and an issuing financial institution. The financial institutions are at the center of this business model and they control the current environments found in most payment situations. Therefore, the payee and the payer ordinarily are forced to accept and use the financial institutions' systems and methods, which may be opposed to the needs or desires of the payee and the payment wishes of the payer.

Security and privacy are also of concern in the current payment models as well. The legacy systems and methods were not designed to deal with the security issues that have arisen as the systems have evolved for use in mail and telephone order, and later electronic commerce situations, and especially those that include buying and selling goods or services over wireless

telecommunications systems or wired networks such as the Internet. None-the-less, technology infrastructures (e.g., networks, servers, computer systems, etc.) have evolved to support the growth in payment transactions and now incorporate additional functionality to improve security and reduce privacy weaknesses in the original implementations. Payment Card Industry Data Security Standard (PCI DSS) is an example of after-the-fact rules and processes that attempt to patch the security and privacy weaknesses in legacy payment systems. To accommodate these new security and privacy policies, existing servers and network infrastructures must oftentimes undergo extensive, often massive, change.

Modifying and patching these legacy systems is costly, often inefficient and to an extent ineffective as additional security and privacy weaknesses can arise as a result of changing existing payment processing servers and networks. In addition, the restrictions of existing payment systems do not necessarily promote the development or growth of new payment services, payment types or payment devices. Further, the financial institutions that own and operate the existing systems can be resistant to changes in those systems or related revenue models, and thus can impede innovation rather than promote it.

Accordingly, there is a need and desire for new payment systems and methods that will address the many shortcomings of the current systems and methods, provide greater flexibility in payment transactions between payers and payees and in many cases bring payers and payees closer together into a relationship that is otherwise natural for them.

BRIEF SUMMARY OF THE INVENTION

In accordance with various embodiments of the invention, payer-controlled payment transactions utilize a mediating broker entity involving one or more servers that the broker entity owns, leases or controls; the broker entity, through its server(s), acts for and at the instruction of the payer to instruct funding source servers to make or cause payment(s) to be made to payee(s) as described herein without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee(s). This approach is distinct from conventional payment systems and methods where the payee (e.g., a merchant) is responsible for initiating and managing the authorization and payment process and information about the payer's funding source(s) and/or real account(s) is transparent to or obtainable by the payee. Various embodiments of the

invention restructure current payment systems and methods to address limitations and restrictions in the conventional model.

Various implementations of the invention may include one or more of the following features and advantages:

(a) A payment broker is created whose responsibility it is to implement and use servers that the broker entity owns, leases or controls to instruct funding source servers to make or cause payment(s) to be made to payee(s) as described herein in accordance with the instruction of the payer without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

(b) As opposed to current conventional systems or methods, the selection of payer funding source(s) and real account(s) to be used for the payment(s), the selection or approval of the depository institution(s) and real account(s) of the payee to which the payment(s) is/are to be made, the initiation and management of the authorization process and the manner in which the payment(s) is/are to be made, or caused to be made, to the payee as described herein, as well as the overall control of the payment process, rests with the payer and not the payee, and are implemented in each case so as to not divulge the payer-selected funding source(s) and the payer-selected real account(s) to the payee. In addition, the payer is not restricted to those payment sources or types normally advertised and accepted by a merchant or other payee. Further, the payer can also designate one or more agents or users to act for and as authorized by the payer in communicating with and instructing the payment broker so that payment(s) are made or caused to be made to payee(s) as described herein without divulging the payer-selected funding source(s) and the payer-selected real account(s) to the payee(s). As but one example, a payer can authorize his or her accountant to act as his or her agent to communicate with and instruct the payment broker for or on the payer's behalf in order to make or cause payment(s) to be made to payee(s) as described herein from one or more funding source(s) and real account(s) of the payer without divulging the payer-selected funding source(s) and the payer-selected real account(s) to the payee.

(c) Once authorization has been obtained and the payer and/or payee so notified, the payment broker can or will guarantee the payment to the payee provided that there are no abnormal circumstances relating to the payment. The notification by the payment broker that

authorization has been obtained or denied can be made without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

(d) The payer may select one or more funding sources and real accounts that the payer would like to use for a particular payment. The selection may be any real account(s) at one or more funding sources which the payer has previously identified to the payment broker and that may result in a transfer of value (e.g., a remittance of funds) from or on behalf of and at the instruction of the payer to the payee upon the completion of the payment without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

(e) Although the payer may have loyalties to one funding source over others, at the time of the payment the payer's loyalty to the payee is reinforced and emphasized regardless of the payer funding source(s) or real account(s) used to make the payment. This reinforcement and emphasis can arise in many ways including because the payer now controls the payment process and the systems and methods described herein can result in more certainty of payment for the payee and thereby encourage the payee to provide incentives to the payer (such as discounts, coupons, value-adds, etc.) in consideration of the payer's use of the disclosed systems and methods to effect the payment.

(f) Security and privacy infrastructures may be part of the server and network architecture described herein.

(g) In various implementations a payee does not have access to or possess any of the payer's funding source or real account data or, in most cases, the method of payment; consequently, the payee's systems (e.g., where the payee is a merchant) do not need to concern themselves with any risks associated with processing or storing such data. Thus, payees are relieved of the risks and concerns that arise from possessing or storing sensitive payer data that may be subject to attacks by criminals for fraudulent use, such as by hacking, phishing, piracy or other illegal conduct.

(h) Payees that are merchants can also avoid the capital cost or other expenses relating to modifying their existing POS, server and network systems to accommodate various security and privacy rules (e.g., PCI DSS) determined by funding sources and/or related associations (e.g., VISA, MasterCard, etc.)

Accordingly, in one aspect, the invention pertains to a method of processing a payment transaction. In various embodiments, the method includes the steps of: at a payment brokerage server operated by a payment broker, causing a processor to execute stored instructions for authenticating a payer; receiving, by the brokerage server via a telecommunication network, a payer selection of one or more funding sources and one or more real accounts associated with the payer; computationally retrieving, from a database in a memory, by the brokerage server, information identifying a payee and one or more real accounts of the payee at an institution other than the payment broker; receiving, via a telecommunications network, at the brokerage server, an instruction from the payer instructing that the payment be made to the real account(s) of the payee from the payer-selected funding source(s) and the payer-selected real account(s); receiving, via a telecommunication network, authorization from the payer-selected funding source(s) of the payment to be made from the payer-selected real account(s) to the real account(s) of the payee; and causing transfer, via a telecommunication network by the brokerage server, of the payment from the payer-selected funding source(s) and the payer-selected real account(s) to the real account(s) of the payee to complete the payment transaction with the payer-selected funding source(s) instructing one or more third parties to make the payment so as to not divulge the identity of the payer-selected funding source(s) or the payer-selected real account(s) to the payee. In one implementation, the selection of the real account(s) and institution of the payee is controlled by the payer and not by the payee; additionally, the payer is not restricted in the selection to those payment sources and types normally advertised and accepted by the payee.

The brokerage server may communicate with the payer and/or the payee via wireless or wired telecommunication network communication using a payer electronic device and/or a payee electronic device, respectively. Additionally, the payer electronic device and the payee electronic device may communicate via wireless or wired telecommunication network communication.

In various embodiments, the brokerage server includes or is in communication with one or more databases having multiple records for payers and payees; each payer record includes authentication information and the funding source(s) and real account(s) associated with the payer. Additionally, each payee record includes at least identification information associated with the payee.

In some embodiments, the brokerage server instructs, via a telecommunications network, the payer-selected funding source(s) to fund or transfer the payment to the payee by instructing the third party/parties to issue one or more instruments of remittance or transfer and (i) mailing the instrument(s) to the payee, (ii) delivering the instrument(s) to the payee or (iii) holding the instrument(s) for pick-up by the payee in order to complete the payment transaction without divulging the payer-selected funding source(s) or the payer-selected real account(s) to the payee.

In a second aspect, the invention relates to a brokerage server for processing a payment transaction by a payment broker. In various embodiments, the brokerage server includes a processor, a communications module executed by the processor for receiving, via a telecommunications network, communications from a payer, an authentication module executed by the processor to execute stored instructions for authenticating the payer, and a payment module. In one implementation, the payment module is executed by the processor for: (i) receiving, via a telecommunications network, a payer selection of one or more funding sources and one or more real accounts associated with the payer, (ii) computationally retrieving, from a database in a memory, information identifying a payee and one or more real accounts of the payee at an institution other than the payment broker, (iii) receiving, via a telecommunications network, authorization from the payer-selected funding source(s) of the payment to be made from the payer-selected real account(s) to the real account of the payee(s), and (iv) causing transfer, via a telecommunication network by the brokerage server, of the payment from the payer-selected funding source(s) and the payer-selected real account(s) to the real account(s) of the payee to complete the payment transaction with the payer-selected funding source(s) instructing one or more third parties to make the payment so as to not divulge the identity of the payer-selected funding source(s) or the payer-selected real account(s) to the payee. In various embodiments, the selection of the real account(s) and institution of the payee is controlled by the payer and not by the payee; additionally, the payer is not restricted in the selection to those payment sources and types normally advertised and accepted by the payee.

The payment module may be configured to instruct, via a telecommunications network, the payer-selected funding source(s) to fund or transfer of the payment to the payee by instructing the third party/parties to issue one or more instruments of remittance or transfer and (i) mailing the instrument(s) to the payee, (ii) delivering the instrument(s) to the payee or (iii) holding the instrument(s) for pick-up by the payee in order to complete the payment transaction

without divulging the payer-selected funding source(s) or the payer-selected real account(s) to the payee. In various embodiments, the brokerage server further includes a module for computationally retrieving from one or more databases having records specifying payers, payees, funding sources, real accounts, and authentication information.

In a third aspect, the invention pertains to a system for processing a payment transaction. In some embodiments, the system includes an electronic device running an application for authenticating or obtaining authentication information from a payer, obtaining payee-identifying information, and receiving a selection by the payer of one or more funding sources and one or more real accounts associated with the payer; and a brokerage server. In one implementation, the brokerage server is operated by a payment broker for (i) authenticating and identifying the payer based on the authentication information and requesting authorization from the payer-selected funding source to make a payment (ii) computationally retrieving, from a database in a memory, information identifying the payee and one or more real accounts of the payee at an institution other than the payment broker, (iii) receiving, via a telecommunications network, an instruction from the payer instructing that the payment be made to the real account(s) of the payee from the payer-selected funding source(s) and the payer-selected real account(s), (iv) receiving, via a telecommunications network, authorization from the payer-selected funding source(s) of the payment to be made from the payer-selected real account(s) to the real account(s) of the payee, and (v) causing transfer, via a telecommunication network by the brokerage server, of the funds from the payer-selected funding source(s) and the payer-selected real account(s) to the real account(s) of the payee to complete the payment transaction by instructing one or more third parties to make the payment so as to not divulge the identity of the payer-selected funding source(s) or the payer-selected real account(s) to the payee. In various embodiments, the selection of the real account(s) and institution of the payee is controlled by the payer and not by the payee; additionally, the payer is not restricted in the selection to those payment sources and types normally advertised and accepted by the payee.

The brokerage server may be configured to instruct, via a telecommunication network, the payer-selected funding source(s) to fund or transfer the payment to the payee by instructing the third party/parties to issue one or more instruments of remittance or transfer and (i) mailing the instrument(s) to the payee, (ii) delivering the instrument(s) to the payee or (iii) holding the

instrument(s) for pick-up by the payee in order to complete the payment transaction without divulging the payer-selected funding source(s) or the payer-selected real account(s) to the payee.

Reference throughout this specification to "one example," "an example," "one embodiment," "an embodiment," "one implementation," or "an implementation" means that a particular feature, structure, or characteristic described in connection with the example is included in at least one example of the present invention. Thus, the occurrences of the phrases "in one example," "in an example," "one embodiment," "an embodiment," "in one implementation" or "an implementation" in various places throughout this specification are not necessarily all referring to the same example. Furthermore, the particular features, structures, routines, steps, or characteristics may be combined in any suitable manner in one or more examples of the present invention. The headings provided herein are for convenience only and are not intended to limit or interpret the scope or meaning of the claimed invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 depicts an architecture and operation of a payer/merchant, purchase/payment transaction;

FIG. 2 depicts a transaction flow in accordance with one embodiment of the current invention;

FIG. 3 depicts an architecture and the operation of a payer/payee payment transaction; and

FIG. 4 depicts a transaction flow in accordance with another embodiment of the current invention.

DETAILED DESCRIPTION OF THE INVENTION

Definitions.

For purposes hereof, the following definitions apply regardless of whether a given term is expressed with or without an initial capital letter.

Make, Cause to be Made, Occur, Cause to Occur or Control: In various embodiments of the invention as further described herein: (i) to "make" a payment is to send, route, clear and deposit the payment in the payee's depository institution and real account or to issue a check, money order or other remittance of funds or transfer of value representing the payment and mail, deliver or hold it to or for pick up by the payee, in each case without divulging the payer-selected funding source and payer-selected real account to the payee, (ii) a payment is "made" or "occurs" when the making of the payment has been accomplished, (iii) a payment is "caused to be made" or "caused to occur" when a funding source server, upon the instruction of a payment broker's server, itself instructs a third party to make a payment on the funding source's behalf on behalf of the payer in regard to a payer-selected real account and in accordance with the payer's instruction, as further described herein, either by making the payment to the payee's depository institution and real account or by issuing a check, money order or other remittance of funds or transfer of value representing the payment and mailing, delivering or holding it to or for pick up by the payee, as further described herein, in each case without divulging the payer-selected funding source and payer-selected real account to the payee, and (iv) to "control" the payment process is meant the exclusive ability to initiate the payment process, select payer funding source(s) and real account(s) to be accessed or used for a payment, initiate and manage the authorization process for the payment, determine or approve routing or clearing instructions for the payment and select or approve the payee depository institution(s) and real account(s) to which the payment is/are to be made, or caused to be made, or to determine that the payment will be made, or caused to be made, by the issuance of a check, money order or other remittance or transfer of value and mailed, delivered or held to or for pick up by the payee, as further described herein, in each case without divulging the payer-selected funding source and payer-selected real account to the payee. In various embodiments of the invention as described herein, the payer and not the payee, controls the payment process utilizing a payment broker acting on the payer's behalf in accordance with the payer's instructions.

Payer: A payer can be any individual or legal entity wishing to make or cause a payment to be made to a payee. The payer is the person or legal entity that initiates, instructs and controls the systems and methods established and implemented by the payment broker as described in further detail herein. The payer can also designate one or more agents or users to act for and as authorized by the payer in communicating with and instructing the payment broker to make or

cause a payment(s) to be made to payee(s) as described herein, in each case without divulging the payer-selected funding source(s) and the payer-selected real account(s) to the payee(s). Indeed, in a given payment transaction, an individual or entity may be both the payer and the payee.

Payee: A payee can be any individual or legal entity receiving a payment, including without limitation, a merchant. The role of payer or payee is interchangeable based upon the circumstances of the underlying payment transaction, but for every payment transaction there is a payer and a payee.

Payment: Any payment, remittance or transfer of funds for any purpose whatsoever including, without limitation, for the payment of debts, bills or wages; for the purchase of goods or services or for contributions or donations; or any other transfer or conveyance of value whatsoever, including, without limitation, the provision or conveyance of goods or services; or the provision or conveyance of a credit for goods or services; a transfer or license of content, information, software or intellectual property; or any other payment, remittance or transfer of legal tender, funds or value whatsoever, whether now in existence or arising in the future.

Funding Source: A funding source can be a financial institution, credit union, credit card company, phone company, lending organization or any other merchant, service provider, business, legal entity or individual that the payer has a real account with that can be used to make or cause a payment to be made to a payee as described herein without divulging the payer-selected funding source and payer-selected real account to the payee. In the case of credit accounts, this is the business, legal entity or individual that will extend credit to the payer in order to make or cause the payment to be made to the payee as described herein without divulging the payer-selected funding source and real account to the payee, and assume the credit risk of the credit extension. Other examples of funding sources can include organizations such as PayPal, Apple, Charles Schwab or any business, legal entity or individual where the payer has a real account, and where the funding source's server will authorize and make or cause the payment to be made to the payee as described herein at the instruction of the payment broker server for or on behalf of and in accordance with the instruction of the payer as also described herein, without divulging the payer-selected funding source and payer-selected real account to the payee. The funding source may also guarantee that the payment will be made or caused to be

made as described herein at the instruction of the payment broker server for or on behalf of and in accordance with the instruction of the payer as also described herein, in each case without divulging the payer-selected funding source and payer-selected real account to the payee. As discussed herein, a payer may have multiple funding sources. In addition, the payment broker can itself also be a funding source if it hosts one or more real accounts for a payer.

Electronic Devices: These can be typical stationary point of sale terminals found in use today at payee (e.g., merchant) locations. These can also include portable electronic devices such as mobile phones or other devices including, without limitation, PDAs or computer tablets, or any computer, computer system, server or electronic device that is Internet-enabled or that can communicate with the payment broker using traditional or wireless telephone networks or systems, or other means of electronic or analog communication whether now in existence or arising in the future. An electronic device may also be able to communicate with other electronic devices. As discussed herein, an electronic device may also include an Internet web site or a touch-tone or rotary telephone. It is also important to note that a payer or payee can each register multiple electronic devices with the payment broker with each such device available for the payer's or payee's use, respectively, in instructing or communicating with the payment broker. In addition, each payer or payee can also register one or more electronic devices with the payment broker for use by their respective authorized agents or users in instructing or communicating with the payment broker for and on their behalf. Each of the foregoing electronic devices can be configured to communicate with the payment broker generally or can be configured with restrictions such as limits as to the authorized user(s), funding source(s), depository institution(s) or real account(s) that may be accessed to make or cause payments to be made to payee(s) as described herein or that may be selected or approved by the payer for where payments to payee(s) are to be made or caused to be made, without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee(s). Further, a given electronic device can be a payer electronic device, a payee electronic device or both a payer and a payee electronic device depending upon the payment transaction involved.

Payment Broker: This is a legal entity or organization that establishes and practices the servers and methods described herein. The payment broker acts at the instruction of the payer. The payment broker's servers have the ability to process payment instruction(s) from the payer and to ensure that the payee(s) will receive the requested payment(s) from whatever appropriate

funding source(s) and real account(s) the payer chooses for a particular payment(s). The payment broker's servers instruct the payer-selected funding source(s) servers as to how to make or cause payment(s) to be made to payee(s) as described herein, in each case without divulging the payer-selected funding source(s) and the payer-selected real account(s) to the payee.

Payment Broker Account Reference Numbers: These are user-controlled identifiers (numbers, names or combinations of numbers, characters or names) that the payer (or in some cases the payee) chooses to represent real accounts at various funding sources or payment receiving depository institutions.

Real Account(s): A "real account" is a specific user account with an identifier known to the user and the funding source or depository institution, such as a credit card number, debit card number, checking account number, deposit account number, merchant or service provider account number, etc. Examples of real accounts are accounts as now known or as may be developed in the future including accounts that are associated with credit cards or debit cards, and including demand deposit accounts, checking accounts, loyalty accounts, value accounts, savings accounts, credit union accounts or deposit accounts, or credit accounts with merchants or service providers, etc. When the payer sets up a relationship with the payment broker, it can provide the identifiers corresponding to the real account(s) to be used to make or cause payments to be made or to receive payments, as described herein, and it can also choose payment broker account reference number(s) to represent such real account(s) and their identifier(s). Likewise, if a payee sets up a relationship with the payment broker, it may provide the identifiers corresponding to the real account(s) that it requests be used to receive payments, and it may also choose payment broker account reference number(s) to represent such real account(s) and their identifier(s). Accordingly, it may be possible for more than one payment broker account reference number to be assigned to a given real account and its identifiers, provided that each such payment broker account reference number is unique and correctly corresponds to the given real account and its identifiers.

Thus, a payment broker account reference number can be used by a payer or payee as a reference and association to a given real account and related identifiers at a given funding source or depository institution when transacting via the payment broker. For example, rather than entering real account identifiers in an electronic device, a payer or payee may send the payment

broker their payment broker account reference number that will be used by the payment broker to associate it with the payer's or payee's corresponding real account and identifiers at a specific funding source or depository institution for use in a particular payment transaction. In this manner, real account identifiers are not stored on or sent by the electronic device and are less likely to be compromised or captured by hackers or criminals.

One of the main functions of the payment broker can be to make the funding source(s), real account(s) and, in most cases, the methods of payment, selected by the payer opaque to the payee. That is, the payee may not have any visibility into, control over or concern about the funding source(s) or real account(s) selected by the payer or, in most cases, the methods by which the payment(s) is/are made or caused to be made into the payer-selected or approved real account(s) of the payee or mailed or delivered to or held for pick-up by the payee as described herein. Of course, as described herein, a payee may alternatively request that the payment be made by the payment broker to the payee for or on the payer's behalf by issuing or causing the issuance of a check, money order or other remittance or form of payment or transfer of value to the payee and mailing or delivering the payment to the payee or holding it for pick-up by the payee, or causing the same to occur, and the payer may, if the payer wishes, instruct the payment broker to use its server to accommodate the payee's request. Provided that the requested payment is authorized by the funding source's server and the payee is so notified, the payment broker can or will guarantee the payment to the payee provided that there are no abnormal circumstances relating to the payment. The approval or denial of an authorization request can be sent by the payment broker's server without the payment broker's server divulging the payer-selected funding source(s) or payer-selected real account(s) to the payee.

Architecture and General Flow

Figs. 1 and 2 illustrate the architecture and operation of one exemplary embodiment of the invention, based on a typical purchase/payment transaction in a brick and mortar merchant location. In this example, the payee is a merchant and the payer is an individual purchaser shopping at the store.

With reference to Fig. 1, the merchant's computerized checkout system 110 may include a wireless communication facility for communicating with the payer's wireless electronic device

120, which may, for example, be a smart phone. The payer's device 120 may store and run a software application provided by the payment broker's server 130 (another electronic device) to facilitate payment transactions. In particular, the payment broker's server 130 may include a communication facility 145 permitting communication with a network 140 — e.g., the Internet and/or any other land-based or wireless telecommunication network or system) — and, through network 140, with merchant system 110 and the payer's device 120. In addition, the payment broker's server 130 may contain an application 150 executing as a running process that enables the user to log in and authenticate himself or herself to the payment broker's server 130.

The payment broker's server 130 may include a payment application 155 executing as a running process and performing the brokerage tasks described herein, as well as a database 160 that may contain, for example, records for each authorized payer, payee, electronic device, software application, funding source(s), depository institution(s) and real account(s) as well as related payment making, causing to be made, sending, routing and/or clearing instructions, or instructions as to how a payment is to be mailed, delivered or held for pickup to or by a payee, or caused to occur, in each case without divulging the payer-selected funding source(s) and the payer-selected real account(s) to the payee. These records may include, without limitation, identifying and authentication information for each payer, payee, electronic device, software application, funding source, depository institution, payment broker account reference number and associated real account identifier. Based on these records and the preferences specified by a payer in a payment transaction, the payment broker's server 130 communicates, via network 140, with various servers 175 (i.e., electronic devices) operated by funding sources and hosting the payer's real accounts, and with various servers 180 (i.e., electronic devices) hosting the payee's real accounts.

The payment broker's server 130, merchant system 110, funding source server 175 and the server 180 hosting the merchant's depository real account may each include a general-purpose computing device in the form of a computer including a processing unit, a system memory, and a system bus that couples various system components including the system memory to the processing unit. Computers typically include a variety of computer-readable media that can form part of the system memory and be read by the processing unit. By way of example, and not limitation, computer readable media may include computer storage media and communication media. The system memory may include computer storage media in the form of

volatile and/or nonvolatile memory such as read only memory (ROM) and random access memory (RAM). A basic input/output system (BIOS), containing the basic routines that help to transfer information between elements, such as during start-up, is typically stored in ROM. RAM typically contains data and/or program modules that are immediately accessible to and/or presently being operated on by the processing unit. The data or program modules may include an operating system, application programs, other program modules, and program data. The operating system may be or include a variety of operating systems such as, but not limited to, Microsoft WINDOWS operating system, the Unix operating system, the Linux operating system, the Xenix operating system, the IBM AIX operating system, the Hewlett Packard UX operating system, the Novell NETWARE operating system, the Sun Microsystems SOLARIS operating system, the OS/2 operating system, the BeOS operating system, the MACINTOSH operating system, the APACHE operating system, an OPENSTEP operating system or another operating system or platform.

Any suitable programming language may be used to implement without undue experimentation the payment-processing operations described herein. Illustratively, the programming language used may include, but not be limited to, assembly language, Ada, APL, Basic, C, C++, C#, COBOL, dBase, Forth, FORTRAN, Java, Modula-2, Objective C, Pascal, Prolog, Python, REXX, Smalltalk and/or JavaScript for example. Further, it is not necessary that a single type of instruction or programming language be utilized in conjunction with the operation of the systems and methods of the invention. Rather, any number of different programming languages may be utilized as is necessary or desirable.

The computing environment may also include other removable/nonremovable, volatile/nonvolatile computer storage media. For example, a hard disk drive may read or write to nonremovable, nonvolatile magnetic media. A magnetic disk drive may read from or write to a removable, nonvolatile magnetic disk, and an optical disk drive may read from or write to a removable, nonvolatile optical disk such as a CD-ROM or other optical media. Other removable/nonremovable, volatile/nonvolatile computer storage media that can be used in the exemplary operating environment include, but are not limited to, magnetic tape cassettes, flash memory cards, digital versatile disks, digital video tape, solid state RAM, solid state ROM, network attached storage and the like. The storage media are typically connected to the system bus through a removable or non-removable memory interface.

The processing unit that executes commands and instructions may be a general purpose computer, but may also utilize any of a wide variety of other technologies including a special purpose computer, a microcomputer, mini-computer, mainframe computer, programmed micro-processor, micro-controller, peripheral integrated circuit element, a CSIC (Customer Specific Integrated Circuit), ASIC (Application Specific Integrated Circuit), a logic circuit, a digital signal processor, a programmable logic device such as an FPGA (Field Programmable Gate Array), PLD (Programmable Logic Device), PLA (Programmable Logic Array), RFID processor, smart chip, or any other device or arrangement of devices that is capable of implementing the steps of the processes of the invention.

In one embodiment, the payer is an individual who has a relationship with the payment broker and has designated at least one available funding source and real account/real account identifiers to the payment broker. The payer has also assigned a payer-defined payment broker account reference number to correspond to the designated real account identifiers. With reference to Figs. 1 and 2, a representative transaction flow includes the following steps:

1. The payer spends some time shopping in the store. When ready, the payer presents a shopping cart or items to the merchant checkout location.

2. The payee (or in some cases the payer in self check-out situations) totals the cost of the items for purchase. The total cost and other necessary merchant data (including, but not limited to, a merchant identification or reference number stored in the payment broker's database 160, and which is associated with and identifies the particular merchant to the payment broker) are held in a typical POS terminal or other electronic device associated with merchant system 110. At this point, the payment process can begin.

3. The payer activates the payment broker software application on his or her electronic device 120, initiating step 210.

4. The payer authenticates himself or herself to the payment broker software application, which recognizes the payer. Alternatively, the payer uses the payment broker software application running on the payer's device 120 to communicate via a secure session with and authenticate himself or herself to the payment broker's server 130 (step 215). Any suitable authentication method or technology may be used, including but not restricted to, authentication via password/PIN entry and/or biometrics, digital signature functionality, or other two factor or

three factor authentication all local to the electronic device, as well as additional known authentication processes at the payment broker's server to ensure that the payer, electronic device, software application and designated payee are properly authenticated so that the processing and completion of the requested payment transaction can continue.

5. The merchant system 110 communicates with the payer's device 120 and transfers the total sales and related merchant data (such as merchant identification data and a payment broker account reference number for a merchant-requested depository institution and real account to receive the payment) to the payer's device 120 or in any other manner (e.g., by manual entry by the payer into the payer's device 120) (step 220). The payer can, of course, accept or reject such sales or related merchant data and enter other payer-determined data, as the payer controls the payment process.

6. The payer chooses which funding source and real account to use for the payment (step 225). The payer can make this designation by sending the payment broker's server 130 his or her corresponding payment broker account reference number from a list previously established via the payment broker software application running on device 120. Alternatively, the payment broker's server 130 can communicate via a secure session with payer's device 120 and provide one or more payment broker account reference numbers for selection by the payer (step 230). (In some embodiments, the payer may have pre-specified payment preferences.) The payment broker software application running on the payer's electronic device 120 packages the total sales and merchant related data or payer- determined data, as applicable, with the payee identification or reference number, payer's electronic device data, payer's software application data, funding source identification, payment broker account reference number and/or other transaction data, and processes a payment instruction to the payment broker.

7. The payer's device 120 communicates the payment transmission to the payment broker's server 130 via a secure session over network 140 and sends the applicable payer, electronic device, software application, payee, funding source identification, depository institution, payment broker account reference numbers and other transaction data and the payer's payment instruction to the payment broker for authentication and payment authorization (step 235). The payment broker's server 130 recognizes the payer, electronic device, software

application, payee, funding source, depository institution and/or payment broker account reference numbers and retrieves the associated records from database 160.

8. The payment broker's server 130 receives the payer's payment transmission (step 240), assigns payment transaction reference number(s) to the instruction and associates the supplied payment broker account reference numbers to the appropriate funding source, depository institution and real accounts for actual real account identifiers and data known to and required by the funding source's server 175. In accordance with the payer's instructions, the payment broker's server 130 also associates payer and payee identification with information previously set up by the payer or payee, including payer funding source access preferences, funding source, depository institution and real account identifiers, and any payer payment preferences and/or payer-selected or approved depository real account(s) of the payee.

9. The payment broker's server 130 provides further processing (step 245) to establish that the payer's funding source will authorize the requested payment transaction for or on behalf of the payer. This may include constructing an authorization request based upon funding source requirements. This may also include the payment broker's server 130 sending the authorization request to the funding source's server 175 requesting authorization (steps 250, 255).

10. The funding source's server 175 receives and processes the authorization request, approves the payment or declines the transaction (step 255) and sends its response to the payment broker's server 130 (step 260 or 280).

11. The payment broker ensures that an authorization approval notification is sent to both the payer and the payee, which in this case is a merchant. An authorization approval notification and transaction reference number(s) (and possibly other identifiers, approval codes, day and time identifiers, or other information or data) may be sent by the payment broker's server 130 to the payer's device 120 (step 265), which sends it to the merchant system 110 (step 270). Alternatively, the authorization approval notification and transaction reference number(s) (and such other identifiers, approval codes, day and time identifiers or other information or data) may be sent by the payment broker's server 130 to the merchant system 110, which sends it to the payer's device 120, or the payment broker's server 130 may send the

authorization approval notification and transaction reference number(s) (and such other identifiers, approval codes, day and time identifiers or other information or data) simultaneously to merchant system 110 and payer's device 120. Alternatively, the payer's device 120 or the merchant system 110 may receive the authorization approval notification and transaction reference number(s) (and such other identifiers, approval codes, day and time identifiers or other information or data) for display to the payer or merchant, who communicates it orally to the merchant or payer, as appropriate.

12. Provided the authorization is approved, the merchant closes out the purchase transaction (step 275) and the payer leaves with his or her merchandise. The merchant concludes the transaction using the information provided by the payment broker, which includes, without limitation, transaction reference number(s) and authorization approval (and possibly other identifiers, approval codes, day and time identifiers, or other information or data needed by the payer, payee (e.g., a merchant) or payment broker for their respective processing) for an appropriate audit (i.e., static and dynamic (i.e., real-time)) and security trail. The payment broker can or will guarantee the payment to the merchant provided there are no abnormal circumstances relating to the payment.

13. If the authorization is not approved, the transaction reference number(s) and denial (and possibly other identifiers, approval codes, day and time identifiers or other information or data) may be sent by the payment broker's server 130 to the payer's device 120 (step 280) which forwards it to the merchant system 110 (step 285). Alternatively, the transaction reference number(s) and denial (and such other identifiers, approval codes, day and time identifiers or other information or data) may be sent by the payment broker's server 130 directly to the merchant system 110, which forwards it to the payer's device. The payment broker's server 130 may send the transaction reference number(s) and denial (and such other identifiers, approval codes, day and time identifiers or other information or data) to both the merchant and the payer by any other known communication means. The merchant and payer consult with each other as to the best manner to proceed in regard to the underlying purchase transaction (step 275).

14. The approval notification or denial of an authorization request can be sent by the payment broker's server 130 without the payment broker's service 130 divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

15. Assuming the payment has been authorized, the payment broker's server 130 instructs the funding source's server 175 to make or cause the payment to be made from the payer-selected funding source and payer-selected real account to the merchant's depository institution and real account as described herein, without divulging the payer-selected funding source and payer-selected real account to the merchant (step 300).

16. If, after the payment has been made, the payer has a dispute with the merchant concerning the goods or services purchased, the payer can send a charge-back instruction to the payment broker's server 130 using payer's device 120 or through any other appropriate means to communicate with the payment broker. If and when permitted by applicable laws, regulations and rules, the payment broker will reverse the prior payment transaction and (i) cause a debit to the merchant's real account (via server 180) in the amount of the prior payment and a credit to the payer's designated real account at its designated funding source (via server 175) in the same amount, or (ii) cancel, stop payment upon, revoke or recover the amount of any previously issued check, money order or other remittance or form of payment or transfer of value and cause a credit to the payer's designated real account at its designated funding source (via server 175) in the same amount.

17. However, to avoid fraud, credits for returns of products by a payer to a merchant (i.e., merchant returns) are ordinarily only processed by the payment broker if and when the merchant sends a message to the payment broker that the return has occurred and the merchant instructs the payment broker to reverse the prior payment transaction. The merchant may send such a message and instruction using merchant system 110 to communicate with payment broker's server 130 or by any other means. As with charge-backs as described above, the payment broker's server 130 would (i) cause a debit to the merchant's real account (via server 180) in the amount of the prior payment and a credit to the payer's designated real account at its designated funding source (via server 175) in the

same amount, or (ii) cancel, stop payment upon, revoke or recover the amount of any previously issued check, money order or other remittance or form of payment or transfer of value and cause a credit to the payer's designated real account at its designated funding source (via server 175) in the same amount. Thus, in merchant return situations, the merchant essentially becomes the payer and the former purchaser becomes the payee of the described systems and methods in order to effectuate the merchant return transactions.

Other Implementations

The systems and methods described herein provide a new model for payments made from or on behalf of a payer to or on behalf of a payee. It will be understood that the payment systems and methods described herein are not limited to merchant/payer (e.g., purchaser) payment transactions but can be used for virtually any payment transaction where the payer wishes to make or cause a payment to be made to a payee from payer-selected funding source(s) and real account(s) as described herein without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee. Other transactions may include any transaction where there is payment from one person or legal entity to another person or legal entity (including money transfers, bill payments, utility payments, the payment of wages, contributions, donations, or any other form of payment or remittance of funds or transfer of value.)

Figs. 3 and 4 illustrate the architecture and operation of another exemplary embodiment of the invention, based on a typical payer-to-payee payment transaction. In this example, both the payee and the payer are individuals. The payment can be made for any purpose including, without limitation, for the purchase of goods or services; for the payment of debts, bills or wages; or for contributions or donations; or may cause or result in any other conveyance or transfer of value whatsoever, including, without limitation, the provision or conveyance of goods or services; the provision or conveyance of a credit for goods or services; a transfer or license of content, information, software or intellectual property; or any other payment, remittance or transfer of funds or value whatsoever, whether now in existence or arising in the future.

With reference to Fig. 3, the payee's wireless electronic device 310 may include a wireless communication facility for communicating with the payer's wireless electronic device 320, which may, for example, be a smart phone. The payer's device 320 may store and run a

software application provided by the payment broker's server 330 (another electronic device) to facilitate payment transactions. In particular, the payment broker's server 330 may include a communication facility 345 permitting communication with a network 340 — e.g., the Internet and/or any other land-based or wireless telecommunication network or system) — and, through network 340, with payee's device 310 and the payer's device 320. In addition, the payment broker's server 330 may contain an application 350 executing as a running process that enables the user to log in and authenticate himself or herself to the payment broker's server 330.

The payment broker's server 330 may include a payment application 355 executing as a running process and performing the brokerage tasks described herein, as well as a database 360 that may contain, for example, records for each authorized payer, payee, electronic device, software application, funding source(s), depository institution(s) and real account(s) as well as related payment making, causing to be made, sending, routing and/or clearing instructions, or instructions as to how a payment is to be mailed, delivered or held for pickup to or by a payee, or caused to occur, in each case without divulging the payer-selected funding source(s) and the payer-selected real account(s) to the payee. These records may include, without limitation, identifying and authentication information for each payer, payee, electronic device, software application, funding source, depository institution, payment broker account reference number and associated real account identifier. Based on these records and the preferences specified by a payer in a payment transaction, the payment broker's server 330 communicates, via network 340, with various servers 375 (i.e., electronic devices) operated by funding sources and hosting the payer's real account(s), and with various servers 380 (i.e., electronic devices) hosting the payee's real accounts.

The payment broker's server 330, funding source server 375 and server 380 hosting the payee's depository real account may each include a general-purpose computing device in the form of a computer including a processing unit, a system memory, and a system bus that couples various system components including the system memory to the processing unit. Computers typically include a variety of computer-readable media that can form part of the system memory and be read by the processing unit. By way of example, and not limitation, computer readable media may include computer storage media and communication media. The system memory may include computer storage media in the form of volatile and/or nonvolatile memory such as read only memory (ROM) and random access memory (RAM). A basic input/output system

(BIOS), containing the basic routines that help to transfer information between elements, such as during start-up, is typically stored in ROM. RAM typically contains data and/or program modules that are immediately accessible to and/or presently being operated on by the processing unit. The data or program modules may include an operating system, application programs, other program modules, and program data. The operating system may be or include a variety of operating systems such as, but not limited to, Microsoft WINDOWS operating system, the Unix operating system, the Linux operating system, the Xenix operating system, the IBM AIX operating system, the Hewlett Packard UX operating system, the Novell NETWARE operating system, the Sun Microsystems SOLARIS operating system, the OS/2 operating system, the BeOS operating system, the MACINTOSH operating system, the APACHE operating system, an OPENSTEP operating system or another operating system or platform.

Any suitable programming language may be used to implement without undue experimentation the payment-processing operations described herein. Illustratively, the programming language used may include, but not be limited to, assembly language, Ada, APL, Basic, C, C++, C#, COBOL, dBase, Forth, FORTRAN, Java, Modula-2, Objective C, Pascal, Prolog, Python, REXX, Smalltalk and/or JavaScript for example. Further, it is not necessary that a single type of instruction or programming language be utilized in conjunction with the operation of the systems and methods of the invention. Rather, any number of different programming languages may be utilized as is necessary or desirable.

The computing environment may also include other removable/nonremovable, volatile/nonvolatile computer storage media. For example, a hard disk drive may read or write to nonremovable, nonvolatile magnetic media. A magnetic disk drive may read from or write to a removable, nonvolatile magnetic disk, and an optical disk drive may read from or write to a removable, nonvolatile optical disk such as a CD-ROM or other optical media. Other removable/nonremovable, volatile/nonvolatile computer storage media that can be used in the exemplary operating environment include, but are not limited to, magnetic tape cassettes, flash memory cards, digital versatile disks, digital video tape, solid state RAM, solid state ROM, network attached storage and the like. The storage media are typically connected to the system bus through a removable or non-removable memory interface.

The processing unit that executes commands and instructions may be a general purpose computer, but may also utilize any of a wide variety of other technologies including a special purpose computer, a microcomputer, mini-computer, mainframe computer, programmed micro-processor, micro-controller, peripheral integrated circuit element, a CSIC (Customer Specific Integrated Circuit), ASIC (Application Specific Integrated Circuit), a logic circuit, a digital signal processor, a programmable logic device such as an FPGA (Field Programmable Gate Array), PLD (Programmable Logic Device), PLA (Programmable Logic Array), RFID processor, smart chip, or any other device or arrangement of devices that is capable of implementing the steps of the processes of the invention.

With reference to Figs. 3 and 4, the payer is an individual who has a relationship with the payment broker and has designated at least one available funding source and real account/real account identifiers to the payment broker. The payer has also assigned a payer-defined payment broker account reference number to correspond to the designated real account identifiers. In one embodiment, a representative transaction includes the steps of:

1. The payer wishes to make a payment to a payee who is also an individual.
2. The necessary payee data (including, but not limited to, a payee identification or reference number stored in the payment broker's database 360, and which is associated with and identifies the particular payee to the payment broker) are held in the payee's electronic device 310 or otherwise provided to the payer. At this point, the payment process can begin.
3. The payer activates the payment broker software application on his or her electronic device 320, initiating step 410.
4. The payer authenticates himself or herself to the payment broker software application, which recognizes the payer. Alternatively, the payer uses the payment broker software application running on the payer's device 320 to communicate via a secure session with and authenticate himself or herself to the payment broker's server 330 (step 415). Any suitable authentication method or technology may be used, including but not restricted to, authentication via password/PIN entry and/or biometrics, digital signature functionality, or other two factor or three factor authentication all local to the electronic device, as well as additional known authentication processes at the payment broker's server to ensure that the payer, electronic

device, software application and designated payee are properly authenticated so that the processing and completion of the requested payment transaction can continue.

5. The payee's electronic device 310 communicates with the payer's device 320 and transfers payee data (such as payee identification data and a payment broker account reference number for a payee-requested depository institution and real account to receive the payment) to the payer's device 320 or in any other manner (e.g. by manual entry by the payer into the payer's device 320) (step 420). The payer can, of course, accept or reject such payee data and enter other payer-determined data, as the payer controls the payment process.

6. The payer chooses which funding source and real account to use for the payment (step 425). The payer can make this designation by sending the payment broker's server 330 his or her corresponding payment broker account reference number from a list previously established via the payment broker software application running on device 320. Alternatively, payment broker's server 330 can communicate via a secure session with payer's device 320 and provide one or more payment broker account reference numbers for selection by the payer (step 430). (In some embodiments, the payer may have pre-specified some payment preferences.) The payment broker software application running on the payer's electronic device 320 packages the payee's transaction data or payer-determined data, as applicable, with the payee identification or reference number, payer's electronic device data, payer's software application data, funding source identification, payment broker account reference number and/or other transaction data, and processes a payment instruction to the payment broker.

7. The payer's device 320 communicates the payment transmission to the payment broker's server 330 via a secure session over network 340 and sends the applicable payer, electronic device, software application, payee, funding source identification, depository institution, payment broker account reference numbers and/or other transaction data and the payer's payment instruction to the payment broker for authentication and payment authorization (step 435). The payment broker's server 330 recognizes the payer, electronic device, software application, payee, funding source, depository institution and/or payment broker account reference numbers and retrieves the associated records from database 360.

8. The payment broker's server 330 receives the payer's payment transmission (step 440), assigns a payment transaction reference number to the instruction and associates the supplied payment broker account reference numbers to the appropriate funding source, depository institution and real accounts for actual real account identifiers and data known to and required by the funding source's server 375. In accordance with the payer's instructions, the payment broker's server 330 also associates payer and payee identification with information previously set up by the payer or payee, including payer funding source access preferences, funding source, depository institution, and real account identifiers, and any payer payment preferences and/or payer-selected or approved depository real account(s) of the payee.

9. The payment broker's server 330 provides further processing (step 445) to establish that the payer's funding source will authorize the requested payment for or on behalf of the payer. This may include constructing an authorization request based upon funding source requirements. This may also include payment broker's server 330 sending the authorization request to the funding source's server 375 requesting authorization (steps 450, 455).

10. The funding resource's server 375 receives and processes the authorization request, approves the payment or declines the transaction (step 455) and sends its response to the payment broker's server 330 (step 460 or 480).

11. The payment broker ensures that an authorization approval notification is sent to both the payer and the payee. An authorization approval notification and transaction reference number(s) (and possibly other identifiers, approval codes, day and time identifiers, or other information or data) may be sent by the payment broker's server 330 to the payer's device 320 (step 465), which sends it to the payee's device 310 (step 470). Alternatively, the authorization approval notification and transaction reference number(s) (and such other identifiers, approval codes, day and time identifiers or other information or data) may be sent by the payment broker's server 330 to the payee's device 310, which sends it to the payer's device 320, or the payment broker's server 330 may send the authorization approval notification and transaction reference number(s) (and such other identifiers, approval codes, day and time identifiers or other information or data) simultaneously to the payee's device 310 and payer's device 320. Alternatively, the payer's device 320 or the payee's device 310 may receive the authorization approval notification and transaction reference number(s) (and

such other identifiers, approval codes, day and time identifiers or other information or data) for display to the payer or payee, who communicates it orally to the payee or payer, as appropriate.

12. Using the information provided by the payment broker, which includes, without limitation, transaction reference number(s) (and possibly other identifiers, approval codes, day and time identifiers, or other information or data needed by the payee for its processing) for an appropriate audit (i.e., static and dynamic (i.e., real-time)) and security trail, the payee concludes whatever transaction or matter the subject payment was intended for. The payment broker can or will guarantee the payment to the payee provided there are no abnormal circumstances relating to the payment.

13. If the authorization is not approved, the transaction reference number(s) and denial (and possibly other identifiers, approval codes, day and time identifiers or other information or data) may be sent by the payment broker's server 330 to the payer's device 320 (step 485) which forwards it to the payee's device 310 (step 475). Alternatively, transaction reference number(s) and denial (and such other identifiers, approval codes, day and time identifiers or other information or data) may be sent by the payment broker's server 330 directly to the payee's device 310, which forwards it to the payer's device or the payment broker's server 330 may send the transaction reference number(s) and denial (and such other identifiers, approval codes, day and time identifiers or other information or data) to both the payee and the payer by any other known communication means. The payee and payer consult with each other as to the best manner to proceed in regard to the transaction or matter the payment was intended for (step 475).

14. The approval notification or denial of an authorization request can be sent by the payment broker's server 330 without the payment broker's server 330 divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

15. Assuming the payment has been authorized, the payment broker's server 330 instructs the funding source's server 375 to make or cause the payment to be made from the payer-selected funding source and payer-selected real account to the payee's depository institution and real account as described herein, without divulging the payer-selected funding source and payer-selected real account to the payee (step 500).

16. If, after the payment has been made, the payer has a dispute with the payee concerning the underlying transaction or matter, the payer can send a charge-back instruction to the payment broker's server 330 using payer's device 320 or through any other appropriate means to communicate with the payment broker. If and when permitted by applicable laws, regulations and rules, the payment broker will reverse the prior payment transaction and (i) cause a debit to the payee's real account (via server 380) in the amount of the prior payment and a credit to the payer's designated real account at its designated funding source (via server 375) in the same amount, or (ii) cancel, stop payment upon, revoke or recover the amount of any previously issued check, money order or other remittance, form of payment or transfer of value and cause a credit to the payer's designated real account at its designated funding source (via server 375) in the same amount.

Additional Functions, Features and Characteristics

In addition to the representative transaction flow described above with regard to a payee that may be a merchant, in another embodiment the payer shops at a merchant Internet web site or other electronic storeroom where payers can purchase goods or services from the merchant. Thus, a point of sale can mean either a physical storefront (a "brick and mortar") or an Internet web site where payers can shop and where there is an electronic device (such as a POS terminal, cash register, personal computer, etc.) or an Internet web site and associated server that can communicate via wireless or wired networks or other communication means whether now known or developed in the future with other electronic devices such as personal computers or handheld electronic devices such as iPads, iPods or mobile phones.

In one implementation, the merchant's electronic device is capable of sending data to and receiving data from the payer's handheld or portable electronic device. In another implementation, the appropriate payee information is manually entered into the payer's electronic device which can be as low-tech as a conventional touch-tone or rotary telephone in communication with the payment broker. Alternatively, the payer may call or visit and speak with a customer-service representative at the payment broker and orally communicate and receive the needed information necessary to process and complete the requested payment, with

the customer-service representative entering the needed information into the payment broker's server through conventional means.

Likewise, a payee can also access and communicate with the systems and methods described herein by similarly calling, visiting and speaking with a customer-service representative of the payment broker. As described above, any means by which the payer or payee can communicate with the payment broker can be used to gather and relay the necessary information by and between the payment broker and the payer and/or payee in order to process and complete the requested payment.

In one embodiment, the payer's electronic device can send data to and receive data from the payee's electronic device (such as a POS terminal, cash register or mobile phone.) The payer's electronic device runs a software application provided by the payment broker that can contain pre-configured information about the payer and the payer's payment preferences (including payer designated funding source(s), depository institution(s) and payment broker account reference number(s)) as well as the ability to package sales ticket or other payee or payer information, initiate a payment instruction in accordance with the payer's requirements, and send or respond to data required to complete the payer instructed payment. In some implementations, a given payment broker account reference number may represent (i) a payer-selected funding source and payer-selected real account therein, (ii) a payer-selected or approved payee depository institution and payer-selected or approved real account of the payee therein, or (iii) a payee-requested depository institution and payee-requested real account of the payee therein.

The payer's designated funding source(s) and real account(s) and, in most cases, the method of payment can be opaque to the payee since the payee will not know them, have any visibility or control over them or any concerns about them. The payee receives the payment regardless of whether the payer chooses a credit card account, debit card account, checking account, savings account, loyalty account, value account, etc. or any other funding source and real account capable of making the desired payment, and regardless of how the payment is made or caused to be made to a payee as described herein, in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

The payer may activate the payment broker provided software application on their electronic device. In one implementation, the activation represents to the payee that the payer's

electronic device is ready for the transaction and prepares the software application on the payer's device to receive sales and other payee information from the payee's electronic device including, but not limited to, a POS terminal or cash register in the case of a payee that is a merchant. In this implementation, the merchant selects an option on its electronic device that causes the sales data, merchant identification or reference number information and other data to be sent to the payer's electronic device. Once this merchant data and information is captured by the payer's electronic device, it is packaged with the payer's transaction data and related information as well as the payer's payment instruction for transmission to the payment broker's server. The resulting payment transmission is then sent to the payment broker's server for further processing and routing to the server of the payer's designated funding source(s) as described herein. In some implementations, the payment broker furnishes the payee (including a merchant) with a suitable software application to be run on the payee's electronic device that facilitates this payee to payer data and information transmission.

Accordingly, in this implementation, the merchant's electronic device transmits the sales and merchant data to the payer's electronic device using some standard communication interface/protocol preferred by the industry. For example, these may be Bluetooth, RFID, Near Field Communications (NFC) and others that the industry adopts as standard communication interfaces/protocols and that are available for both the payee's and payer's electronic devices. For present purposes, the term NFC is used generally to represent any of the acceptable standard interface/communication protocols that currently exist or that may exist in the future. However, in this implementation, the only requirement is that both the payee's and the payer's electronic devices implement a compatible interface/protocol and can communicate with each other using that standard.

The payee's electronic device may contain payee transaction data that includes, without limitation, an amount, payee identification number, payee transaction reference number, date and time stamp, payee electronic device data, payee software application data, payee authentication data, and/or any other payee data useful to the payment broker's server to authenticate the payee, and/or the payee's electronic device and/or software application. Once the payee's electronic device transmits the sales, payee identification and other payee-related data and information, the payer's electronic device signals good receipt back to the payee's electronic device.

The payer's electronic device may contain the payer transaction data that includes, without limitation, payer identification data, a payer transaction reference number, date and time stamp, funding source(s) and real account(s) selected by the payer for the payment, payer electronic device data, payer-selected or approved real account(s) of the payee to receive the payment, payer software application data, and any other payer data useful to the payment broker's server to authenticate the payer and/or the payer's electronic device and/or software application and process the payer's payment instruction.

The payment broker software application running on the payer's electronic device readies the payment transaction for transmission to the payment broker's server for further processing and routing to the server of the payer's designated funding source(s) as described herein. The payer can select a single funding source or multiple funding sources and one or more real accounts for the desired payment (i.e., may instruct the payment broker's server to implement a split payment) or the payer may instruct the payment broker's server to instruct a funding source sever to make or cause a payment to be made to a payee as described herein from certain preferred funding source(s) and real account(s) generally or only with respect to specific payees (e.g., certain merchants or types or categories of merchants), in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee. The payer can also instruct the payment broker's server as to which depository institution(s) and real account(s) of the payee the payer wants the desired payment(s) to be made or caused to be made, in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee, with the payer and not the payee making the selection, providing the instructions and controlling the payment transaction. Further, the payer can also instruct the payment broker's server to instruct the payer-selected funding source server to issue one or more checks, money orders or other remittances or forms of payment or transfers of value and to mail, deliver or hold them for pick-up to or by the payee, or to cause the same to occur, all as selected and instructed by the payer and not the payee, with all such actions under the control of the payer, and in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

The payer sends the payment transmission to the payment broker's server. The common security/encryption protocols found on most mobile phones and other handheld devices such as 3G, 4G, Wireless, etc. can be used to establish a secure session with the payment broker's server.

In another implementation, the payee's electronic device communicates via a secure session and sends the payee transaction related data to the payment broker's server. The payment broker's server communicates via a secure session and sends a message to the payer's electronic device requesting the payer's electronic device to send the payer's transaction related data and payer's payment instruction to the payment broker's server. The software application on the payer's electronic device responds by sending the payer's transaction related data and payer's payment instruction. The payment broker's server processes the payee's transaction related data and the payer's transaction related data and the payer's payment instruction and sends an authorization request and/or payment instruction to the server of the payer's designated funding source(s) as instructed by the payer to make or cause the payment to be made to the payee as described herein without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee. Alternatively, the payer's electronic device communicates via a secure session and sends the payer's transaction related data and payment instruction to the payment broker's server. The payment broker's server communicates via a secure session and sends a message to the payee's electronic device requesting the payee's device to send the payee's transaction related data to the payment broker's server. The software application on the payee's electronic device responds by sending the payee's transaction related data. The payment broker's server processes the payee's transaction related data and payer's transaction related data and payer's payment instruction and sends an authorization request and/or payment instruction to the server of the payer's designated funding source(s) as instructed by the payer to make or cause the payment to be made to the payee as described herein without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

In one implementation, the payment broker's server obtains from one or more secure databases of or controlled by the payment broker the real account information and method of payment to be used by the payer's designated funding source(s) and sends that information to the funding source's server. In another implementation, the payment broker's server can access the relevant database(s) of the payer's designated funding source(s) in order to obtain some or all of the necessary information and data that it needs in order to process and direct the requested payment transaction as instructed by the payer. The authorization request and/or payment instruction to make or cause the payment to be made to the payee as described herein without

divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee are then routed to the server(s) of the payer-selected funding source(s) as instructed by the payer.

For example, if the payer wants to pay with funds from his or her bank checking account, the payment broker's server communicates with the applicable funding source's server to ascertain if the payment can be made by using existing methods known in the industry to perform a check with the funding source's server. If the funds are available, authorization will be sent back to the payment broker's server. The payment broker's server can then transmits an approval notification to the payment broker software application running on the payer's electronic device or otherwise communicates the information to the payer and/or payee as described herein. The approval notification or denial of an authorization request can be sent by the payment broker's server without the payment broker's server divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

The functions performed by the payment broker's server and secure database(s) may be combined into a single server with or without a separate database or databases. In addition, if the payment broker is also acting as a funding source and hosting one or more real accounts of the payer, then for a given payment, the functions performed by the payment broker's server and the funding source's server may be combined into a single server implementation with or without a separate server for the funding source function.

The payer's mobile phone (i.e., hand held electronic device) informs the merchant's electronic device that the transaction will be honored and the merchant can release the goods to the payer. The payment broker can guarantee the payment to the merchant provided there are no abnormal circumstances relating to the payment. The payee may possess an electronic device capable of processing the sales information and can (preferably) communicate with the payer's electronic device using a compatible interface/protocol. In one implementation, this electronic device does not require further communication capability. The payer possesses an electronic device that is (preferably) capable of communicating with the payee's electronic device. The payer's electronic device also communicates with and sends the necessary data and the payer's payment instruction to the payment broker's server, which, in turn, processes and sends the authorization request and/or payment making or causing to be made instructions to the designated funding source's server in order to make or cause the payment to be made to the

payee as described herein as instructed by the payer, without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee. If the authorization request is approved, the payment broker's server instructs the funding source's server to make or cause the payment to be made to the payee as described herein as instructed by the payer, without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

The payee can also have a typical merchant relationship with the payment broker as found in the credit card industry today; it is not, however, a requirement that the payee have a credit card relationship with the payment broker. Typical merchants or businesses that accept credit cards for payment have relationships with merchant banks or ISOs for payment authorization and/or clearing functions. In some embodiments, the payment broker or its affiliate may also be a merchant processor for typical credit and debit card transactions and a merchant may have a merchant relationship with the payment broker or its affiliate totally distinct from its relationship with the payment broker in regard to the payment systems and methods described herein.

The merchant can submit normal credit card authorization requests through the typical gateways found today (e.g., for MasterCard and Visa). However, if the payer, who also has a relationship with the payment broker, indicates that the payer would prefer to use the payer's electronic device to make or cause the payment to be made to the payee as described herein, then those payment systems and methods can be invoked and used. The payer chooses which funding source(s) and real account(s) to use, then in one implementation the merchant sales ticket data, merchant identification data and a merchant requested depository institution and real account are captured by the payer's electronic device. The necessary data and payer's payment instruction are then packaged and routed through whatever electronic or communication networks are available for the payer and the payment transmission may be sent to the payment broker's server for processing as described herein.

In another implementation, the payer chooses the funding source(s), depository institution(s) and real account(s) that he or she would like to use from his or her electronic device, captures the merchant's (or other payee's) data and initiates and routes the packaged transaction and related data with the payer's payment instruction through whatever electronic or communication networks are provided for the merchant (or payee) with the transaction being

sent in this manner to the payment broker's server for processing as described herein. In some implementations, the payment broker's server furnishes the merchant (or other payee) with a suitable software application that facilitates the payer's use of the merchant's (or payee's) network transmission option. Thus, virtually any suitable electronic or communications network or facility may be utilized by the payer's electronic device to communicate with the payment broker's server.

A given individual or entity may be a payer in one payment transaction and a payee in another payment transaction. Indeed, a given individual or entity may be both the payer and the payee in a given payment transaction such as when a payer instructs the payment broker to make a payment from one or more of the payer's funding sources and real accounts to another real account of the payer at a depository institution. However, for each payment transaction there is always a payer and a payee, which payee may or may not be a merchant. Accordingly, the payment broker software application that runs on an electronic device may in some implementations include a payer mode of operation and a payee mode of operation, either of which modes of operation may be selected by the user or by the payment broker depending upon the circumstances. Alternatively, the user or the payment broker could also designate only a single mode of operation for a given instance of the software application on a given electronic device. Whichever mode of operation is selected, the payment broker software application performs the tasks identified herein for the mode of operation that it is then performing.

When operating in a payee mode of operation, the payment broker software application may facilitate communications between the payee's electronic device and the payer's electronic device, between the payee's electronic device and the payment broker's server, and possibly also between the payer's electronic device and the payment broker' server through a network or other communications system available to the payee. Further, when operating in a payee mode of operation, the payment broker software application may (in some implementations) package payee information, payer information and the payer's payment instruction and transmit the package to the payment broker's server on behalf of the payer via a network or other communications system available to the payee. For security purposes, the payer's information and the payer's payment instruction can be transmitted to the payee in encrypted or other secure form for packaging with the payee's information for further transmission by the payee to the

payment broker's server on the payer's behalf. Of course, the payee's information can also be encrypted or otherwise made secure to reduce similar security concerns.

However, when operating in a payee mode of operation, the payment broker software application may not undertake the payer-controlled operations described above that are typically implemented via the payer's electronic device or by the payment broker's server such as enabling the payer to select among available funding sources and payment broker account reference numbers associated with the payer's funding sources and real accounts, enabling the payer to select or approve the depository institutions and real accounts of the payee to which the payments are to be made, processing and formatting the payer's payment instructions to the payment broker's server or, in the case of the payment broker's server, processing and sending authorization requests and/or payment making or causing to be made instructions as described herein to payer-selected funding source servers as described herein, in each case without divulging the payer-selected funding source(s) and the payer-selected real account(s) to the payee. Those payer-controlled operations are facilitated by the payment broker software application when operating in a payer mode of operation or by the payment broker's server when acting for or on behalf of the payer and at the payer's instruction.

Further, in order to reduce the risk of fraud, theft or misappropriation, it may in certain circumstances be appropriate for the payment broker's server to authenticate the payer's electronic device and/or the payee's electronic device and/or given instances of the payment broker software application operating in a payer and/or payee mode. The payment broker's server can further assure that a payment transmission purportedly sent from a payer to the payment broker's server is in fact genuine and originates from the payer that it purports to be from, regardless of whether transmitted through a payee-accessible network or communications system via an instance of the payment broker software operating in a payee mode. In addition, it should be noted that the payment broker software application can be sold, licensed or otherwise provided to the payer or the payee by the payment broker directly, via electronic or wireless transmission or by other conventional delivery systems, or via other authorized third party delivery or transmission systems such as the Apple Store or Google Apps, etc.

The payee relationship with the payment broker can be very minimal and can, for example, consist of the payee simply providing the payment broker with payee identification

information and preferably a payee requested real account information for a payee real account at a depository institution into which a payment can be deposited, or an address or location where the payment can be mailed or delivered to or held for pick-up by the payee. Indeed, in some embodiments the payee may have no formal relationship with the payment broker with the payer providing the payee identification information and preferably real account information for a real account of the payee at a depository institution into which a payment can be deposited or an address or location where the payment can be mailed or delivered to or held for pick-up by the payee, in each case without divulging the payer's funding source(s) and payer-selected real account(s) to the payee. Further, the payee may not be required to have a real account of record with the payment broker as the payment broker's server can alternatively, upon the payer's instruction, instruct the payer-selected funding source server to issue a check, money order or other remittance or form of payment or transfer of value and mail, deliver or hold for it for pick up to or by the payee, or cause the same to occur, in each case without divulging the payer-selected funding source(s) and real account(s) to the payee. Essentially embodiments of the present invention can be payer controlled, and the payer can make or cause the payer's payment to be made as described herein, without divulging the payer-selected funding source and payer-selected real account to the payee, to whoever or whatever the payer instructs (including to the payer when the payer is also the payee that receives the payment), as long as the payment broker has been provided with payee identification information and preferably a real account of the payee into which the payment can be deposited or an address or location to which the payment can be mailed or delivered to or held for pick-up by the payee.

Further, the payee relationship with the payment broker may be more extensive, depending upon the payee and/or types of underlying transactions the systems and methods described herein are intended to support and that accordingly, the payer can instruct the payment broker to use its server to accommodate a more extensive payee relationship. Thus, most payees (including merchants) may have a much more extensive relationship with the payment broker as the systems and methods described herein are configured to support the underlying purchase, money transfer, bill payment, utilities payment, wages payment or any other payment, remittance or transfer transactions, etc. that the payer and payee wish to undertake and effect, and will likely be subject to a variety of applicable laws, regulations and rules, audit requirements (both static and dynamic (e.g., real-time)) and funding source and third party routing and/or clearing system

rules and requirements that will need to be complied with in connection therewith. In one embodiment, the systems and methods described herein can be configured as instructed by the payer so that the payment broker's server supports the static and dynamic (e.g., real-time) audit requirements of large merchants pertaining to the underlying purchase and payment transactions undertaken. In another embodiment, a payee (e.g., a merchant) designates to the payment broker a payee-requested specific real account of the payee to be accessed by the payment broker for charge back or merchant return situations, which real account is different from the payee's requested real account where payments are to be deposited or made, and the payer could instruct the payment broker to use its server to accommodate this payee-requested arrangement. As previously mentioned, in a merchant return situation, the merchant essentially becomes the payer and the former purchaser becomes the payee of the described systems and methods in order to effectuate the merchant return transaction.

In addition, the payer's relationship with the payment broker may be more or less extensive. As described above and in addition to the more typical relationship of a payer and the payment broker as described herein, a payer may register multiple electronic devices with the payment broker with each such device available for the payer's use in communicating with or instructing the payment broker. In addition, a payer may also register multiple agents or users, each authorized by the payer to communicate with and instruct the payment broker for or on the payer's behalf in order to make or cause payments to be made to payee(s) as described herein from one or more funding sources and real accounts of the payer without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee(s). For example, a payer may authorize his or her accountant to act as his or her agent to communicate with and instruct the payment broker for or on the payer's behalf in order to make or cause payment(s) to be made to payee(s) as described herein from one or more funding source(s) and real account(s) of the payer without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee(s). As another example, an elderly person may authorize her son or daughter to communicate with and instruct the payment broker on the elderly person's behalf to make or cause payment(s) to be made to payee(s) as described herein from the elderly person's funding source(s) and real account(s) without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee(s). As a further example, a payer could hire an auto-pay type computer-implemented service company in order to use that company's server to

automatically communicate with and instruct the payment broker on the payer's behalf to make or cause payment(s) to be made to payee(s) as described herein from the payer's funding source(s) and real account(s) without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee(s) in order for the payer to pay various periodic or non-periodic bills or debts of the payer. Further, each of the payer's authorized agents or users may also be registered with the payment broker to use one or more electronic devices that are also registered with the payment broker for such purposes. Still further, the payer may instruct the payment broker to place limits or restrictions on the payer's authorized agents or users permitted communications and payment instructions to the payment broker, such as per-payment amount limits or restrictions limiting the authorized agent or user to only being able to communicate with and instruct the payment broker to make or cause payments to be made to payee(s) as described herein only from a payer designated funding source and real account to only certain payer designated payee(s), without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee(s).

As discussed previously in regard to purchaser charge backs and merchant returns in merchant/purchaser payment transactions supported by the systems and methods described herein, similar functionality and methods can be used to support other underlying payment transactions that the payer and payee may also wish to implement such as money transfers, bill payments, utilities payments, the payment of wages or any other forms of payment or remittance of funds or transfers of value, and also depending in part upon the laws, regulations and rules applicable to the subject underlying transaction(s) involved. With regard to the systems and methods described herein, the payer (and in most cases, the payee) may have relationships with the payment broker that are consistent and comply with all applicable laws, regulations and rules. This applies to merchant/purchaser and other payment transactions where the payer and payee may need to have relationships with the payment broker that (i) are consistent with the laws, regulations and rules governing the implemented payment transaction(s), such as charge-backs and merchant returns in merchant/purchaser transactions or applicable requirements in money transfer transactions, and (ii) authorize the payment broker to reverse prior payment transactions as described herein in a manner that is consistent with those laws, regulations and rules.

It will be seen that implementations of the systems and methods described herein may not require that the payer or payee have an electronic device to communicate with the payment

broker. Any means whether now known or developed in the future by which the payer or payee can communicate with the payment broker will suffice, including by using text messaging or any analog or digital electronic device and related telecommunications network or system, a touch-tone or rotary telephone and the conventional telephone system or by visiting or speaking with a customer-service representative of the payment broker who gathers the necessary information and payer's instruction and inputs it into the payment broker's server and orally communicates back the necessary payment transaction information to the payer and/or payee.

Authorization requests and payment instructions can be initiated and instructed solely by the payer and the payer can use the payment broker's server to seek authorizations from and instruct a multitude of different types of funding sources and real accounts. The payment broker's server can act solely at the payer's instruction in obtaining authorization from the server of the payer-selected funding source and instructing the funding source server to make or cause the payer's payment to be made to a payee as described herein from the payer-selected funding source and payer-selected real account(s) without divulging the payer-selected funding source and payer-selected real account(s) to the payee. The payer can also instruct the payment broker's server as to which depository institution(s) and real account(s) of the payee the payer wants the desired payment to be made, or caused to be made, as described herein, in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee, with the payer and not the payee making the selection, providing the instructions and controlling the payment process. Further, the payer can also instruct the payment broker's server to instruct the payer-selected funding source server to issue one or more checks, money orders or other remittances or forms of payment or transfers of value and to mail, deliver or hold them for pick-up to or by the payee, or cause the same to occur, all as selected and instructed by the payer and not the payee, with all such actions under the control of the payer, and in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee. Thus, implementations of the systems and methods in accordance herewith can be entirely "payer-controlled" and can support virtually all payment transaction types (e.g., credit card, debit card, checking account, deposit account, loyalty account, value account, etc.) and all payment purposes (point of sale purchases, money transfers, bill payment, payment of wages, utility payments, donations, contributions or any other payments or remittances of funds or transfers of value, etc.) As previously indicated, the payer may designate one or more agents or users to act

for and as authorized by the payer in communicating with and instructing the payment broker's server in order to make or cause payment(s) to be made to payee(s) as described herein on the payer's behalf without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee(s). The payer may select a single funding source or multiple funding sources and a single real account or multiple real accounts for the desired payment (i.e., may instruct the payment broker's server to implement a split payment) or the payer may instruct the payment broker's server to make or cause payments to be made to payees as described herein from certain preferred funding source(s) or real account(s) generally or only with respect to specific payees without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

Implementations of the systems and methods described herein can also eliminate much of the risk for the payee. In addition, since the payer initiates and controls the authorization and payment process, the risk of fraud from a third party accessing the payer's real account(s) is much reduced, particularly since real account identifying information is not stored, transmitted or received by the payer's or payee's electronic devices. In one implementation, the payment broker's server calls on one or more secure databases for information relating to the payer or payee and processing options. The database information may be stored in the payment broker's secure site or elsewhere, or it may be stored in one or more databases at one or more funding sources, but the payment broker's server ensures that appropriate information necessary to obtain authorization for the instructed payment transaction is available along with payment making, causing to be made, routing and/or clearing instructions to compete the instructed payment. In addition, if the payment broker is also acting as a funding source and hosting one or more real accounts of the payer, then for a given payment, the functions performed by the payment broker's server and the funding source's server may be combined into a single server implementation with or without a separate server for the funding source function.

In some embodiments, the payment broker's server has completed the required processing, gained authorization approval from the funding source's server, and instructed the making or causing to be made of the payment to the payee as described herein without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee, and would then provide completion information for routing back to the payer and/or payee. In one embodiment, the authorization and payment can occur in real-time since once authorization has

been obtained from the funding source's server, the payment can be made pursuant to the payer's instructions. The funding source's server is then provided with concurrent instructions to the effect that if authorization is approved, payment is to be made or caused to be made to the payee as described herein (e.g., if-then type instructions) without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

In other embodiments, such as those involving a typical credit or debit card authorization request, pursuant to the payer's instruction, the payment broker's server calls upon one or more secure database(s) owned or controlled by the payment broker or a funding source to obtain all necessary data and information and continue with an authorization request to the funding source's server (e.g., a credit issuing institution); gains authorization approval from the funding source's server; and then transmits an authorization approval notification to the payer's and/or payee's electronic device with the related instruction to the funding source's server to make the payment or cause it to be made on a periodic or batch settlement basis, without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

The approval or denial of the authorization request can be sent by the payment broker's server without the payment broker's server divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

Since typically there is very little information (for security and privacy concerns) stored on the payer's or payee's electronic device, the payment broker's server calls on the applicable secure database(s) to supply necessary data and information in order to complete most payment transactions. It is preferred that no funding source, depository institution, real account or related identifier data be stored on any payer or payee electronic device that is part of an implementation in accordance herewith. In one implementation, the payer's electronic device software application does not permanently store any payment transaction data on the device but only sends such data to the payment broker's server for processing.

The systems and methods described herein may or may not use existing Visa, MasterCard, Discover, American Express, or other conventional credit or debit networks typically used at a payee (e.g., a merchant) location for authorization, clearing and settlement purposes. If the payer elects to pay with a credit or debit card real account designated to the payment broker's server at a given funding source, pursuant to the payer's instruction, the

payment broker's server may route the authorization request to the appropriate card network that will route the request to the server of the issuing funding source to process and respond to the authorization request and/or related instructions to make or cause a payment to be made to the payee as described herein, without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee. If the payer elects to pay using a transfer of funds from a debit card real account at a funding source to a payer-selected or approved real account of the payee at a depository institution, then other known existing networks may be used to complete the payment transaction as described herein as instructed by the payer, without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

When the payment broker's server instructs a funding source server to make a payment from a payer-selected real account to the payee as instructed by the payment broker's server on the payer's behalf and at the payer's instruction, the payment may be made or caused to be made to the payee as described herein in any manner now known or developed in the future that can result in the payment being deposited into the payer-selected or approved real account of the payee, or the funding source server may be instructed to issue or cause to be issued a check, money order or other remittance or payment of funds or transfer of value and to mail, deliver or hold it for pick-up or cause it to be mailed, delivered or held for pick-up to or by the payee, in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee. These non-divulging methods may include, without limitation, (i) in a preferred embodiment, having the payment broker's server instruct the funding source server to itself instruct a bank or financial institution with which the funding source has a relationship (such as a bank or financial institution that hosts one or more payment and/or clearing accounts of the funding source) to make the payment to the payer-selected or approved real account of the payee from such payment or clearing account(s) or to issue a check, money order or other remittance or payment of funds or transfer of value and mail or delivered it to or hold it for pick-up by the payee, in each case without divulging the payer-selected funding source and payer-selected real account(s) to the payee, (ii) having the payment broker's server instruct the funding source server to itself instruct a subsidiary or affiliate of the funding source (which subsidiary or affiliate is itself a bank or other financial institution) to make the payment to the payer-selected or approved real account of the payee or to issue a check, money order or other remittance or payment of funds or transfer of value and mail or delivered it to or hold it for pick-up by the

payee, in each case without divulging the payer-selected funding source and payer-selected real account(s) to the payee, (iii) having the payment broker's server instruct the funding source server to itself instruct a subsidiary or affiliate of the funding source to instruct the subsidiary's or affiliate's bank or other financial institution to make the payment from a real account of the subsidiary or affiliate at such bank or other financial institution to the payer-selected or approved real account of the payee or to issue a check, money order or other remittance or payment of funds or transfer of value and mail or delivered it to or hold it for pick-up by the payee, in each case without divulging the payer-selected funding source and payer-selected real account(s) to the payee, or (iv) having the payment broker's server instruct the funding source server to itself instruct a third party with which the funding source has an appropriate contractual or other relationship to instruct that third party's bank or other financial institution to make the payment from a real account of the third party at such bank or other financial institution to the payer-selected or approved real account of the payee or to issue a check, money order or other remittance or payment of funds or transfer of value and mail or delivered it to or hold it for pick-up by the payee, in each case without divulging the payer-selected funding source and payer-selected real account(s) to the payee. In addition, those of ordinary skill in the art of payments will recognize that many combinations and permutations of the above methods are feasible and can result in a payment being made or caused to be made to a payee as described herein, in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee.

In general, any feasible and lawful manner in which the payment broker's server can instruct a payer-selected funding source server to make a payment from a payer-selected real account at the funding source to the payee as instructed by the payment broker's server on the payer's behalf and at the payer's instruction that can result in the payment being made into the payer-selected or approved real account of the payee, or to issue a check, money order or other remittance or payment of funds or transfer of value and mail, deliver or holds it for pick-up to or by the payee, in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee, is within the spirit and scope of the invention.

Likewise, in general, any feasible and lawful manner in which the payment broker's server can instruct a payer-selected funding source server to itself instruct a third party to make a payment into a payer-selected or approved real account of the payee on behalf of the payer-

selected funding source on behalf of the payer in regard to a payer-selected real account of the payer and in accordance with the payer's instruction, or to instruct a third party to issue a check, money order or other remittance or form of payment or transfer of value and mail or deliver it to or hold it for pick-up by the payee, on behalf of the payer-selected funding source on behalf of the payer in regard to a payer-selected real account of the payer and in accordance with the payer's instruction, in each case without divulging the payer-selected funding source and payer-selected real account to the payee, is within the spirit and scope of the invention. When the bank or financial institution with which the funding source, its subsidiary or affiliate or such a third party has a relationship (such as a bank or financial institution which hosts a payment and/or clearing account of the funding source or a bank or financial institution which hosts a real account of such a subsidiary or affiliate or a bank or financial institution which hosts a real account of such a third party) makes the payment to the payer-selected or approved real account of the payee as described herein it may do so as instructed by making the payment through a merchant bank clearing system, an ATM network, an ISO, to any other third party clearing system or by issuing a check, money order or other remittance or payment of funds or transfer of value and mailing, delivering or holding it for pick-up to or by the payee as necessary to result in the payment being made into the payer-selected or approved real account of the payee or mailed or delivered to or held for pick-up to or by the payee as described herein, in each case without divulging the payer-selected funding source(s) and payer-selected real account(s) to the payee. Further, concurrently with the payment being made by the third party to the payer-selected or approved real account of the payee or the third party issuing a check, money order or other remittance or form of payment or transfer of value and mailing or delivering it to or holding it for pick-up by the payee to complete the payment transaction as described above, in each case without divulging the payer-selected funding source and payer-selected real account to the payee, or after or before the payment is so made, the payer-selected funding source can use funds from the payer-selected real account of the payer to (i) reimburse the third party for the amount of the payment, (i) pre-fund the amount of the payment to the third party, or (iii) reimburse the funding source, when the funding source has offset the amount of the payment from obligations otherwise owed to the funding source by the third party, as appropriate. Of course, the manner in which authorization is obtained from a given payer-selected funding source server or a payment is made or caused to be made to a payee as described herein, in each case with the payer-selected

funding source(s) and payer-selected real account(s) not being divulged to the payee, can be determined by the payment broker's server in accordance with the payer's instruction such that each and all of those activities will comply with all applicable laws, including all financial reporting, anti-money laundering and anti-terrorism laws.

In addition, in a preferred embodiment the manner in which authorization is obtained from a payer-selected funding source server or a payment is made or caused to be made to a payee as described herein in accordance with the payer's instruction can each be determined with a view to reducing or eliminating unnecessary fees or charges that might otherwise be incurred by the payer-selected funding source or third party, or in connection with the alternative methods of making or causing the payment to be made to a payee as described herein, provided that in each case that the payer-selected funding source(s) and payer-selected real account(s) are not divulged to the payee.

Any type of telecommunications system by which the payment broker's server can communicate with a payer-selected funding source server (and vice versa) in order to route authorization requests or instructions as to how to make or cause a payment to be made to a payee as described herein, or to receive authorization approvals, denials or confirmations of remittance or transfer, or to transmit or receive any other instructions, confirmations or completion information appropriate to the operation of the systems and methods described herein can be used in connection with the described systems and methods including, without limitation, the Internet, dedicated telecommunications lines, satellite telecommunications systems or third party wireless or land based telecommunication networks or routing and/or clearing systems, etc. Further, as instructed by the payment broker's server for or on behalf of the payer and at the payer's instruction, the payer-selected funding source server could also use such telecommunications systems to communicate with the payer and/or payee in order to communicate authorization approval notifications, denials or completion confirmations of payments, remittances or transfers, etc. It will also be seen that the systems and methods described herein can be used globally wherever the necessary telecommunications, network and payment routing and/or clearing infrastructures are available.

In a preferred embodiment of the systems and methods described herein, the payment broker's server, as well as the payer's electronic device and related payment broker software

application operating in a payer mode of operation or the payee's electronic device as well as the related payment broker software application operating in a payee mode of operation can each be configured and implemented to incorporate and use state of the art user validation, privacy and compliance functionality such as multi-factor authentication, strong cryptography, geolocation, PKI, encrypted database(s), digital ink and digital signature functionality, as well as dynamic (e.g., real- time) audit functionality for fraud or irregularity detection, and instant application locking if fraud or an irregularity is detected or other validation, authentication, privacy, compliance, fraud or irregularity detection technologies that may be developed in the future.

Indeed, in a preferred implementation, the payment broker's server can be organized and configured to provide the functionality and implement the methods described herein via a single backend push-pull engine and database(s) configuration structure. Such a configuration can allow the addition of new functionality and features on-the-fly. In addition, any payer entitlements or benefits (such as coupons, special offers or other add-value features, etc.) that may be offered to a payer by the payment broker or its alliance members or commercial partners (including possibly merchants or funding sources) can be managed dynamically and driven by a master payer profile, thereby facilitating the addition of new entitlements or benefits on-the-fly with all related data and content pulled and processed by the payment broker's server on the payer's behalf in real-time. This configuration or other configurations that may be developed in the future can allow for single-point testing, certification and upgrading as well as flexibility in adding new functionality, features, entitlements and benefits. Further, alliance or commercial partner entitlements, benefits and data can be added or removed conveniently via direct feeds, the use of application programmer interfaces or similar interface methods.

Certain embodiments of the present invention were described above. It is, however, expressly noted that the present invention is not limited to those embodiments, but rather the intention is that additions and modifications to what was expressly described herein are also included within the scope of the invention. Moreover, it is to be understood that the features of the various embodiments described herein were not mutually exclusive and can exist in various combinations and permutations, even if such combinations or permutations were not made express herein, without departing from the spirit and scope of the invention. In fact, variations, modifications, and other implementations of what was described herein will occur to those of

ordinary skill in the art without departing from the spirit and the scope of the invention. As such, the invention is not to be defined only by the preceding illustrative description.

What is claimed is:

ABSTRACT

In certain embodiments of systems and methods for conducting payment transactions between a payer and a payee, the payer selects one or more payment sources from various funding sources and accounts available to the payer, and instructs a payment broker's server to perform payment authorization and/or payment making, causing to be made, routing and/or clearing services on the payer's behalf. The payment broker's server notifies the payer and/or the payee of the payment authorization status and, if approved, instructs the funding source's server to make or cause the payment to be made to payer-selected or approved real account(s) of the payee, or otherwise to the payee, without divulging the payer-selected funding source(s) and/or account(s) to the payee.

Office Action Summary	Application No. 14/455,526	Applicant(s) FOTE, CHARLES T.	
	Examiner OLABODE AKINTOLA	Art Unit 3691	AIA (First Inventor to File) Status Yes

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

Period for Reply

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

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

Status

1)☒ Responsive to communication(s) filed on *8/8/2014*.

☐ 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) *1-5* 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) *1-5* 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: _____.

matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 1 recites that both the electronic device and the broker server comprise of a communicating facility permitting communication over the telecommunication network. It is not clear if the facilities are the same or different. Appropriate correction is required.

Furthermore, the claim recites a "processor for". This is considered an intended use of a processor and the functional limitations attached to it is considered not positively recited. However, in the spirit of compact prosecution, Examiner has addressed the functional limitations. Examiner suggests amending it to read "a processor configured for:"

Claim 1 also recites "the payer not being restricted in the selection to those payment sources and types normally advertised and accepted by the payee", the metes and bounds of this limitation is not clear. Payment sources and types normally advertised and accepted by a payee is considered indefinite.

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 of this title, 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.

Claims 1-5 are rejected under 35 U.S.C. 103 as being unpatentable over Singhal (USPAP 20020062281) in view of Scipioni (USPAP 20120296821)

Re claim 1: Singhal teaches a telecommunication system comprising:

a) an electronic device connected to and configured for communication over a telecommunication network, the electronic device comprising a communication facility permitting communication over the telecommunication network; and

a processor for (i) running an application for authenticating or obtaining authentication information from a payer, (ii) obtaining payee-identifying information, and (iii) receiving a selection by the payer of at least one funding source and at least one real account associated with the payer (abstract, 0046-0049, 0069, 0075-0077, 0111-0113, 0127, fig. 9A); and

b) a brokerage server, operated by a payment broker and connected to and configured for communication over the telecommunication network, the brokerage server comprising a communication facility permitting communication over the telecommunication network; a computer memory comprising a database; a processor for (i) receiving the authorization information via the telecommunication network, (ii) authenticating and identifying the payer based on the authentication information, (iii) requesting authorization, via the telecommunication network using the communication facility, from the payer-selected funding source to make a payment (0093, 0096-0099, 0102 fig, 10)

Singhal does not explicitly teach (iv) computationally retrieving, from the database, information identifying the payee and at least one real account of the payee at an institution other than the payment broker, the selection of the real account and institution being controlled by the payer and not by the payee, (v) receiving, via the telecommunication network using the communication facility, an instruction from the payer instructing that the payment be made to the at least one real account of the payee from the at least one payer-selected funding source and the at least one payer-selected real account, the payer not being restricted in the selection to those payment sources and types normally advertised and accepted by the payee, (vi) receiving, via the telecommunication network using the communication facility, authorization from the at least one payer-selected funding source of the payment to be made from the at least one payer-selected real account to the at least one real account of the payee, and (vii) causing transfer, via the telecommunication network using the communication facility, of the funds from the at least one payer-selected funding source and the at least one payer-selected real account to the at least one real account of the payee to complete the payment transaction by instructing, via the

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:	Charles Fote	CONFIRMATION NO.:	6430
SERIAL NO.:	14/455,526	GROUP NO.:	3691
FILING DATE:	August 8, 2014	EXAMINER:	O. Akintola
TITLE:	BROKER-MEDIATED PAYMENT SYSTEMS AND METHODS		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE

This paper is responsive to the Office Action mailed on December 23, 2014 in the above-identified patent application (the "Office Action").

Listing of claims begins on page 2 of this paper; and

Remarks begin on page 8 of this paper.

Submitted herewith is a Terminal Disclaimer against U.S. Serial Nos. 13/442,309 and 14/048,428. The Director is hereby authorized to charge the fees associated with the Terminal Disclaimer to our Deposit Account No. 50-0310 under Reference No. FOT-002C1. Applicant believes that no additional fees are necessitated by the present paper. However, in the event that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 50-0310 (FOT-002C1).

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

Listing of claims

1. (Currently Amended) A telecommunication system comprising:

a) an electronic device connected to and configured for communication over a telecommunication network, the electronic device comprising a device communication facility permitting communication over the telecommunication network; and

a processor configured for (i) running an application for authenticating or obtaining authentication information from a payer, (ii) obtaining payee-identifying information, and (iii) receiving a selection by the payer of at least one funding source and at least one real account associated with the payer; and

b) a brokerage server, operated by a payment broker and connected to and configured for communication over the telecommunication network, the brokerage server comprising

a server communication facility permitting communication over the telecommunication network;

a computer memory comprising a database;

a processor configured for (i) receiving ~~the authorization~~ authentication information via the telecommunication network, (ii) authenticating and identifying the payer based on the authentication information, (iii) requesting authorization, via the telecommunication network using the server communication facility, from the payer-selected funding source to make a payment, (iv) computationally retrieving, from the database, information identifying the payee and at least one real account of the payee at an institution other than the payment broker, the selection of the real account and institution being controlled by the payer and not by the payee, (v) receiving, via the telecommunication network using the server communication facility, an instruction from the payer instructing that the payment be made to the at least one real account of the payee from the at least one payer-selected funding source and the at least one payer-selected real account, ~~the payer not being restricted in the selection to those payment sources and types normally advertised and accepted by the payee,~~ (vi) receiving, via the telecommunication network using the server communication facility, authorization from the at least one payer-selected funding source of the

payment to be made from the at least one payer-selected real account to the at least one real account of the payee, and (vii) causing transfer, via the telecommunication network using the server communication facility, of the funds from the at least one payer-selected funding source and the at least one payer-selected real account to the at least one real account of the payee to complete the payment transaction by instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment so as to not divulge the identity of the at least one payer-selected funding source or the at least one payer-selected real account to the payee.

2. (Currently Amended) The telecommunication system of claim 1, wherein the brokerage server is configured to instruct, via the telecommunication network using the server communication facility, the at least one payer-selected funding source to fund or transfer the payment to the payee by instructing at least one third party other than the payment broker to issue at least one instrument of remittance or transfer and (i) mailing the instruments to the payee, (ii) delivering the instruments to the payee or (iii) holding the instruments for pick-up by the payee in order to complete the payment transaction without divulging the identity of the at least one payer-selected funding source or the at least one payer-selected real account to the payee.

3. (Original) The telecommunication system of claim 1, wherein the brokerage server communicates with the payer via the telecommunication network using a payer electronic device.

4. (Currently Amended) The telecommunication system of claim 1, wherein the brokerage server communicates with the payee via the telecommunication network ~~communication~~ using a payee electronic device.

5. (Original) The telecommunication system of claim 1, wherein the database comprises a plurality of records for payers and payees, each payer record comprising authentication information and at least one funding source and one real account associated with the payer, and each payee record comprises at least identification information associated with the payee.

6. (New) The telecommunication system of claim 1, wherein the brokerage server is configured to instruct, via the telecommunication network using the server communication facility, the at least one payer-selected funding source to fund or transfer the payment to the payee by instructing at least one third party other than the payment broker to make the payment so as to not divulge the identity of the at least one payer-selected funding source or the at least one payer-selected real account to the payee.

7. (New) The telecommunication system of claim 1, wherein the brokerage server is configured to request and instruct, via the telecommunication network using the server communication facility, the at least one payer-selected funding source to authorize the payment to the payee and if the payment is authorized, to concurrently fund or transfer the payment to the payee by instructing at least one third party other than the payment broker to make the payment so as to not divulge the identity of the at least one payer-selected funding source or the at least one payer-selected real account to the payee.

REMARKS

The undersigned thanks the Examiner for his time and courtesy during the telephonic interview that took place on February 25, 2015. The undersigned notes that the discussion focused on the arguments presented herein. Accordingly, this paper is intended to constitute a proper recordation of the interview in accordance with MPEP § 713.04, and also to provide a full response to the Office Action.

After entry of this Amendment, claims 1-7 will be pending in this application. Claims 1, 2, and 4 are amended, and claims 6 and 7 are added. Support for the claim amendments may be found throughout the specification including page 3, lines 10-17; page 9, lines 13-26; page 37, lines 14-21; page 40, lines 8-31; page 41, lines 1-10 and 26-31; page 42, lines 1-5; page 43, lines 10-31; pages 44 and 45; and page 46, lines 1-12 of the application as originally filed. No new matter has been added.

Double Patenting

Claims 1-5 are provisionally rejected on the ground of nonstatutory double patenting over claims in copending U.S. Serial Nos. 13/442,309 and 14/048,428. To address this provisional rejection, we file herewith a terminal disclaimer against both cited applications.

Rejection of Claims under 35 U.S.C. §112

Claims 1-5 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for various enumerated reasons. We have amended the claims subject to this rejection, and we respectfully submit that the amended claims satisfy the requirements of §112.

Rejection of Claims under 35 U.S.C. §103

Claims 1-5 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent Publ. No. 2002/0062281 (hereafter "Singhal") in view of U.S. Patent Publ. No. 2012/0296821 (hereafter "Scipioni"). A critical distinction between the presently claimed invention and the disclosures of Singhal and Scipioni involves the combination of payer control and third-party instruction. In particular, neither cited reference discloses or suggests payer-controlled payment (i.e., payer designation of destination payee account) combined with "instructing, via the

telecommunication network using the communication facility, at least one third party other than the payment broker to make the payment so as to not divulge the identity of the at least one payer-selected funding source or the at least one payer-selected real account to the payee."

This distinction is important because of the layers of security provided by the presently claimed approach and absent from both cited references. In particular, while payer control ensures that funds are transferred to a payee account that the payer recognizes as legitimate, the requirement of payment by a third party (i.e., a party other than the payment broker) prevents the payee from discovering the payer's account information via the payment broker; in other words, a potential source of sensitive information is eliminated from the final payment transfer. This approach is illustrated graphically in Fig. 4, which expressly shows the four key interacting entities: the payee's wireless device, the payer's device, the brokerage server, and the third-party funding source. As shown in the figure, while the payer wireless device transmits an instruction to the brokerage server at 435, 440, payment is actually initiated by the brokerage server's instruction to the third-party funding source at 445, 450. As shown at 500, 475, funds are transferred from the third-party funding source to the payee in a manner that bypasses the payment broker (and the payer).

Scipioni, by contrast, discloses establishment, by payment service provider, of an internal "pass-through" account into which payment funds are temporarily received, followed by transmission of the funds to the payee by mail or email.[1] The identity of the payer's account information is not shielded; use of a "pass-through" account does not strip this information from the payment.

More importantly, there is simply no third party involved in the payment — funds come directly from the service provider. Certainly there is no "instructing" of any third party to make the payment so as to not divulge the identity of the payer's funding source or real account as claimed herein.

[1] *See* ¶[0038] of Scipioni.

In light of the foregoing, we respectfully submit that all claims are now in condition for allowance. Applicant believes that no additional fees are necessitated by the present response. However, in the event that any additional fees are due, the Commissioner is hereby authorized to charge any such fees to Deposit Account No. 50-0310.

Respectfully submitted,

Date: March 4, 2015
Reg. No. 33,497

Electronic Signature: /Steven J. Frank/
Steven J. Frank
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amount to a claim as a whole that is significantly more than the abstract idea. The claims are not patent eligible.

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 of this title, 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.

Claims 3-5 and 8 are rejected under 35 U.S.C. 103 as being unpatentable over Singhal (USPAP 20020062281) in view of Scipioni (USPAP 20120296821)/Del Favero et al (USPN 8,073,775) and further in view of Davis et al (USPAP 20090070263).

Re claim 8: Singhal teaches a telecommunication system comprising:

a) an electronic device connected to and configured for communication over a telecommunication network, the electronic device comprising:

a device communication facility permitting communication over the telecommunication network; and

a processor configured for (i) running an application for authenticating or obtaining authentication information from a payer, (ii) receiving payee identifying and real account and financial institution (iii) receiving a selection by the payer of a funding source and at least one real account associated with the payer (abstract, 0046-0049, 0069, 0075-0077, 0111-0113, 0127, fig. 9A); and

b) a brokerage server, operated by a payment broker and connected to and configured for communication over the telecommunication network, the brokerage server comprising

a server communication facility permitting communication over the telecommunication network; a computer memory comprising a database; a processor configured for (i) receiving authentication information via the telecommunication network using the server communication facility, (ii) authenticating and identifying the payer based on the authentication information, (iii) receiving, via the telecommunication network, an instruction from the payer instructing that a payment be made electronically from the payer-selected funding source and at least one payer

selected real account thereof to a real account and financial institution, other than the payment broker, associated with the payee (0093, 0096-0099, 0102 fig, 10)

Singhal does not explicitly teach

{a. (iv)} receiving a selection by the payer of at least one real account and financial institution associated with the payee;

{b. (iv)} computationally retrieving, from the database, information identifying the payer selected funding source and the at least one payer selected real account thereof and the payee and the payer selected real account of the payee at a financial institution other than the payment broker, (v) requesting, via the telecommunication network using the server communication facility, the server of the payer-selected funding source to authorize the payment to the payee, (vi) if the payment is authorized by the server of the payer-selected funding source, instructing such server, via the telecommunication network using the server communication facility, to cause the payment to be made electronically to the payee by a third party other than the payment broker such that the identities of the payer-selected funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee,

and (vii) instructing the server of tile payer-selected funding source, via the telecommunication network using the server communication facility, to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of tile payer at the funding source;

{c} a funding source server, operated by a payer-selected funding source and connected to and configured for communication over the telecommunication network-, the funding source server comprising:

a server communication facility permitting communication over the telecommunication network; a computer memory comprising a database; and a processor configured for (i) receiving; via the telecommunication network using the server communication facility, the request from the payment broker server for authorization of the payment, (ii) computationally retrieving, from a database, information identifying the payer and the at least one payer-selected real account of the payer at the funding source, (iii) authorizing or denying the requested payment, (iv) in response to instruction from the payment broker server following authorization, instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account and financial institution associated with the third party and in the third party's name, thereby preventing divulgation of the identity of the funding source and the at least one payer-selected real account of the payer thereof to the payee, and (v) reimbursing or transferring the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source.

Scipioni/Del Favero teaches the concept of receiving a selection by the payer of at least one real account and financial institution associated with the payee; computationally retrieving, from the database, information identifying the payer selected funding source and the at least one payer selected real account thereof and the payee and the payer selected real account of the payee at a

financial institution other than the payment broker (Scipioni: 0023, 0030, 0036-0038; Del Favero: abstract, col. 5, lines 31-46, col. 4, lines 18-28), (v) requesting, via the telecommunication network using the server communication facility, the server of the payer-selected funding source to authorize the payment to the payee (Scipioni: 0036-0038; Del Favero: col. 1, lines 65 through col. 2, line 25), (vi) if the payment is authorized by the server of the payer-selected funding source, instructing such server, via the telecommunication network using the server communication facility, to cause the payment to be made electronically to the payee by a third party other than the payment broker such that the identities of the payer-selected funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee (Scipioni: abstract, 0023, 0030, 0036-0038; Del Favero: col. 1, lines 65 through col. 2, line 25) and and (vii) instructing the server of the payer-selected funding source, via the telecommunication network using the server communication facility, to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source (Scipioni: 0022-0023, fig. 1, ele. 120; Del Favero: col. 5, lines 56 through col. 6, line 2 & lines 34-45).

Del Favero further teaches a funding source the is configured to (i) receiving; via the telecommunication network using the server communication facility, the request from the payment broker server for authorization of the payment (fig. 1, ele. 112), (ii) computationally retrieving, from a database, information identifying the payer and the at least one payer-selected real account of the payer at the funding source (fig. 1, col. 5, lines 31-46, col. 4, lines 18-28), (iii) authorizing or denying the requested payment (col. 5, lines 31-46, col. 4, lines 18-28), (iv) in response to instruction from the payment broker server following authorization, instructing, via

the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account and financial institution associated with the third party and in the third party's name, thereby preventing divulgation of the identity of the funding source and the at least one payer-selected real account of the payer thereof to the payee (col. 6, lines 26-45).

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify Singhal to include these features as taught by Scipioni/Del Favero for the obvious reason of allowing the payer to designate the payee's account information by supplying sufficient information about the payee to enable the service provider to effect payment to the payee in the desired amount without divulging the payer's funding source in the process by using the transaction clearing device 120 and the EFT network (Scipioni: 0022-0023, 0036, 0038).

Singhal and/or Scipioni/Del Favero does not explicitly teach reimbursing or transferring the amount to the third party from the at least one payer selected real account of the payer at the funding source.

Davis teaches this concept at 0056, 0063, 0066. Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify Singhal/Scipioni/Del Favero to include these features as taught by Davis for the obvious reason of guaranteeing that the third party gets paid after the transfer (0066).

Re claims 3: Singhal and/or Scipioni/Del Favero further teach(es) wherein the brokerage server communicates with the payer via the telecommunication network using a payer electronic device (Singhal: 0038-0043; Scipioni: fig. 1, ele. 102; Del Favero: fig. 1).

Re claims 4: Singhal and/or Scipioni/Del Favero further teach(es) wherein the brokerage server communicates with the payee via the telecommunication network using a payee electronic device (Singhal: 0038-0043; Scipioni: fig. 1, ele. 104; Del Favero: fig. 1).

Re claims 5: Scipioni/Del Favero further teaches wherein the database comprises a plurality of records for payers and payees, each payer record comprising authentication information and at least one funding source and one real account associated with the payer, and each payee record comprises at least identification information associated with the payee and at least one financial institution and at least one real account associated witht eh payee (Scipioni: fig. 1, ele. 126; Del Favero: fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify Singhal to include these features as taught by Scipioni/Del Favero for the obvious reason of enhancing the functionality of the system (0036, 0038).

Response to Arguments

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:	Charles Fote	CONFIRMATION NO.:	6430
SERIAL NO.:	14/455,526	GROUP NO.:	3691
FILING DATE:	August 8, 2014	EXAMINER:	O. Akintola
TITLE:	BROKER-MEDIATED PAYMENT SYSTEMS AND METHODS		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE

This paper is responsive to the non-final Office Action mailed on November 25, 2015 in the above-identified patent application (the "Office Action").

Listing of claims begins on page 2 of this paper; and

Remarks begin on page 5 of this paper.

Submitted herewith is a petition for a three-month extension of time. The Director is hereby authorized to charge the fees associated therewith to our Deposit Account No. 50-0310 under Reference No. FOT-002C1. Applicant believes that no additional fees are necessitated by the present paper. However, in the event that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 50-0310 (FOT-002C1).

REMARKS

The undersigned thanks the Examiner and his supervisor for their time, hospitality and courtesy during the in-person interview that took place on January 13, 2016. The undersigned notes that the discussion focused on the arguments presented herein. Accordingly, this paper is intended to constitute a proper recordation of the interview in accordance with MPEP §713.04, and also to provide a full response to the Office Action.

After entry of this amendment, claims 3, 4, 5, and 8 will be pending in this application. Claims 3, 4 and 8 are amended herein. Support for the claim amendments may be found throughout the specification as originally filed at page 9, line 6 to page 9, line 12; page 13, line 7 to page 13, line 12; page 44, line 2 to page 44, line 13 and page 44, line 29 to page 45, line 7 and in footnotes 3-7 below. No new matter has been added.

In the Office Action, the Examiner rejected claims 3-5 and 8 under 35 U.S.C. §101 as directed to a judicial exception "without significantly more"; and under 35 U.S.C. §103 as being unpatentable over U.S. Patent Publ. No. 2002/0062281 (hereafter "Singhal") in view of U.S. Patent Publ. No. 2012/0296821 (hereafter "Scipioni") and U.S. Patent No. 8,073,775 (hereafter "Del Favero"), and further in view of U.S. Patent Publ. No. 2009/0070263 (hereafter "Davis").

Rejections Under §101

As discussed during the interview, we respectfully submit that the present claims recite a technical solution to a technical problem that has arisen only recently in the context of, and due to the very nature of, mobile electronic commerce. As such, we submit that the claims are patentable within the Office's most recent §101 guidance issued on December 16, 2014[1] (hereafter the "Interim Guidance") and under relevant judicial precedent, in particular, *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) (hereafter "*DDR*"). The *DDR* court noted that while

[1] 2014 Interim Guidance on Patent Subject Matter Eligibility, 79 Fed. Reg. 74618.

> it is true that the claims here are similar to the claims in the cases discussed above in the sense that the claims involve both a computer and the Internet. But these claims stand apart because they do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.[2]

This reasoning applies with equal force to the present invention. To appreciate the problem it addresses and how this problem "specifically aris[es] in the realm of computer networks," it is important to recognize that the security issues affecting electronic commerce and mobile electronic communication devices are fundamentally different from traditional security issues involving in-person bank transactions. Specifically, a payer may wish to make a payment without divulging the identity of his funding source and real account. Conventionally, the payer can contract with a third party to make a payment on the payer's behalf and in the third party's name, thereby shielding the identity of the payer's funding source and real account; for example, the payer may pay the third party by check, and the third party may mail its own check to the payee (similar to the Del Favero reference).

But what if all payments are to be made electronically? Now there are security risks specific to electronically conducted payment transactions, for example, "man in the middle" attacks where malicious actors can acquire information from both the payer and the payer's funding source, and piece these together to compromise the payer's account security. This problem is particularly acute in the case of electronic payments to the payee, because the basic infrastructure of financial transactions is set up for auditability, which favors inclusion of chain-of-transaction details at each step. But those details can reveal the payer's funding source and real account information.

This invention, like the "network-centric" invention in *DDR*, addresses this network-based security hole by (i) authenticating the payer and obtaining information using a secure application, communicating via secure sessions and using secure databases, (ii) allowing the payer to select the payee account and financial institution to which the electronic payment to the payee will be made, (iii) ensuring that the payment destination is a third party other than the payment broker (which could compromise information), and (iv) requiring that the electronic

[2] 773 F.3d at 1257.

payment to the payee originate from a real account and financial institution associated with a third party other than the payment broker or the payer's funding source and in the third party's name. Thus, this is a network-based solution to a network-based problem, with specific operations that are only meaningful over a network; it is not a basic financial transaction that happens to be carried out over a network as a generic alternative to traditional channels.

The amended claims provide:

(i) That the payer's electronic device runs a secure application for authenticating or facilitating the authentication of the payer and accurately and securely communicating with the payment broker's server via secure sessions.[3]

- This ensures that the payment broker's server is securely communicating with and receiving input and instructions only from an electronic device of an authenticated payer.

(ii) For communications over computer networks via secure sessions.[4]

- This ensures private, secure communications.

(iii) For the utilization of secure databases to store payer and payee information.[5]

- This reduces the risk of unauthorized access to sensitive payer or payee information.

(iv) That via the secure application and the payment broker's server the payer, and not the payee, selects the payee's financial institution and real account where the electronic payment to the payee is to be made, which financial institution may not be the payment broker.[6]

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[3] *See* specification at page 13, line 29 to page 14, line 3; page 16, line 24 to page 17, line 30; page 21, line 30 to page 22, line 2; page 24, line 20 to page 25, line 27; page 29, line 9 to page 30, line 13; page 31, line 9 to page 31, line 31; page 32, line 12 to page 32, line 14; page 35, line 28 to page 36, line 2; and page 46, line 29 to page 47, line 9.

[4] *See* specification at page 17, line 25 to page 17, line 30; page 24, line 24 to page 25, line 2; page 25, line 23 to page 25, line 27; page 31, line 29 to page 31, line 31; page 32, line 12 to page 32, line 14; page 35, line 28 to page 36, line 2; and page 46, line 29 to page 47, line 9.

[5] *See* specification at page 32, line 23 to page 32, line 26; page 41, line 15 to page 41, line 21; page 42, line 6 to page 42, line 14; and page 47, line 5.

[6] *See* specification at page 3, line 10 to page 3, line 18; page 9, line 15 to page 9, line 24; page 9, line 28 to page 9, line 30; and page 40, line 8 to page 41, line 10.

- This reduces the risk of a fraudulent diversion of payment funds by non-payees and also reduces the risk of divulgation of sensitive payer information.

(v) That the payment broker's server instructs the server of the payer's funding source to itself instruct a third party other than the payment broker or the payer's funding source to make the electronic payment to the payee from a real account and financial institution associated with such third party and in such third party's name, thereby preventing divulgation of the identity of the payer's funding source and real account information to the payee's depository institution and the payee.[7]

- These limitations break the transmission of chain-of-transaction payment details that accompany an electronic payment and which would otherwise disclose sensitive payer information to the payee's depository institution and the payee. Also, these limitations obviate the need for the payee to receive sensitive payer information that the payee would otherwise need to safeguard to prevent possible misappropriation or misuse. This further protects the payer and the payee.

Support for the patentability of the present claims is also found in the Office's July 15, 2015 Update Appendix to Section 101 Guidelines: in the "transmission of stock quote data" example, the Office cites *DDR* and concludes that claim 2 is eligible, noting:

> The claimed invention addresses the Internet-centric challenge of alerting a subscriber with time sensitive information when the subscriber's computer is offline. This is addressed by transmitting the alert over a wireless communication channel to activate the stock viewer application, which causes the alert to display and enables the connection of the remote subscriber computer to the data source over the Internet when the remote subscriber computer comes online. These are meaningful limitations that add more than generally linking the use of the abstract idea (the general concept of organizing and comparing data) to the Internet, because they solve an Internet-centric problem with a claimed solution that is necessarily rooted in computer technology, similar to the additional elements in DDR Holdings.

Rejections Under §103

We respectfully submit that none of the references, alone or in combination, discloses or suggests: "in response to instruction from the payment broker server following authorization,

[7] *See* specification at page 4, line 19 to page 4, line 25; page 13, line 6 to page 13, line 12; and page 44, line 2 to page 44, line 16.

instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third party's name and not in the name of the payment broker, the funding source or the payer, thereby preventing divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer,"

The Examiner agrees that Singhal does not teach the above limitation, and cites Scipioni and Del Favero therefor. But paragraphs [0022-0023], [0030], [0036-0037], the abstract, and Fig. 1 of Scipioni, cited by the Examiner, involve direct electronic payment from the payer's account to the payee's account; there is no third-party involvement, and therefore no possibility of stripping sensitive payer information. Indeed, non-divulgation of sensitive payer information is not an object of Scipioni and even Scipioni's "pass-through" account, described at paragraph [0038], can provide sensitive chain-of-transaction payer information to the payee's depository institution and the payee: certainly it does not involve payment by a third party from the third party's account at the third party's financial institution in order to shield that information.

Further, in Scipioni, the "pass-through" account at paragraph [0038] is an account of the "payment service provider," which is acting in a manner analogous to a payment broker. Use of such an account is expressly prohibited by the amended claims (i.e., "instructing … at least one third party other than the payment broker to make the payment electronically to the payee from a real account and financial institution associated with the third party and in the third party's name").

Non-divulgation of sensitive payer information is also not an object of Del Favero. While this reference does disclose payment to a payee by a physical check generated by a "third party payment processor" (col. 6, lines 34-45), Del Favero does not disclose any way of making an electronic payment to a payee that does not divulge the identity of the payer's funding source and the identity of the payer's real account. Further, as the Examiner correctly notes, the last two sentences of Del Favero at col. 6, lines 34-45 do not make sense, but even if it they were to be interpreted as the Examiner proposes, a physical check is always necessary. Also, the "electronic check system" in Del Favero refers to an entity acting in a manner analogous to a

payment broker and not to a funding source as required by the present claims; see Fig. 1 of Del Favero. Ultimately, Del Favero is concerned with the convenience of the payer and payee, not with preventing the divulgation of sensitive payer information.

Finally, non-divulgation of sensitive payer information is also not an object of Davis. In Davis, the payer and payee are required to be customers of the same third party (paragraphs [0063-0065]) that is acting in a manner analogous to a payment broker. Although Davis does disclose that the third party may preliminarily obtain sufficient credit or debit card information from its payer customer to ensure it can be repaid (paragraph [0066]), Davis does not disclose a funding source instructing a third party to make a payment on behalf of the funding source's customer from an account of the third party at the third party's financial institution so as not to disclose, to the payee's depository institution and the payee, the identity of the funding source or the identity of the payer's real account. Indeed, in Davis the payee customer of the third party that receives such a payment would know at least the identity of the payer customer's funding source — i.e., the third party. Finally, in Davis, the third party acting in a manner analogous to a payment broker is also acting as a funding source — which, again, is expressly prohibited by the amended claims. (When also acting as a funding source, the third party extends credit on behalf of its payer customer (see the last sentence of ¶[0066])).

Lastly, on page 12 of the Office Action, the Examiner contends that the Applicant's original disclosure "does not explicitly teach that the third party's payment account is in the third party's name; rather that it only recites that the payer's account information is not divulged." But in fact, the specification at page 44, lines 2-13 discloses that the third party is instructed to make the payment from a real account of the third party at the third party's bank or other financial institution so as to not divulge sensitive payer information. Accordingly, such an account would be in the third party's name.

In light of the foregoing, we respectfully submit that all claims are now in condition for allowance. Applicant believes that no additional fees are necessitated by the present response. However, in the event that any additional fees are due, the Commissioner is hereby authorized to charge any such fees to Deposit Account No. 50-0310.

Respectfully submitted,

Date: May 6, 2016
Reg. No. 33,497

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EXAMINER
AKINTOLA, OLABODE

ART UNIT	PAPER NUMBER
3691	

NOTIFICATION DATE	DELIVERY MODE
06/17/2016	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):

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Office Action Summary	Application No. 14/455,526	Applicant(s) FOTE, CHARLES T.	
	Examiner OLABODE AKINTOLA	Art Unit 3691	AIA (First Inventor to File) Status Yes

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

Period for Reply

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

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

Status

1)☒ Responsive to communication(s) filed on *5/6/2016*.

☐ 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) *3-5 and 8* 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) *3-5 and 8* 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: _____.

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

DETAILED ACTION

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.

Claims 3-5 and 8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

Claims 3-5 and 8 are each directed to a statutory category.

Claims are analyzed to determine if they are directed to a judicial exception. Claims are also directed to facilitating electronic fund transfer from a payer to a payee via a third party without divulging the identity of the payer account information to the payee. In other words, the claims describe a process of electronic fund transfer. This is similar to the kind of 'organizing human activity' and/or 'fundamental economic practice' at issue in Alice Corp. Although the claims are not drawn to the same subject matter, the abstract idea of electronic fund transfer using a third party is similar to the abstract idea of managing risk (hedging) during consumer transactions (Bilski) and mitigating settlement risk in financial transactions (Alice Corps.) Claims are therefore directed to an abstract idea.

Next, claims are analyzed to determine if there are additional limitations that individually, or as an ordered combination, ensure that the claims amount to significantly more than the abstract idea. The claims recite additional limitations of using an electronic device, broker server, and a funding source server in a network. These components are recited at a high level of generality and their broadest reasonable interpretation comprises only a processor, memory and transmitter to simply perform the generic computer functions of receiving, processing and transmitting information. Generic computers performing generic computer functions, alone, do not amount to significantly more than the abstract idea. Finally, the telecommunication network limitations are simply a field of use that is an attempt to limit the abstract idea to a particular technological environment and, so do not add significantly more. Viewing the limitations as an ordered combination does not add anything further than looking at the limitations individually. When viewed either individually, or as an ordered combination, the additional limitations do not amount to a claim as a whole that is significantly more than the abstract idea. The claims are not patent eligible.

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 of this title, 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.

Claims 3-5 and 8 are rejected under 35 U.S.C. 103 as being unpatentable over Singhal (USPAP 20020062281) in view of Scipioni (USPAP 20120296821)/Del Favero et al (USPN 8,073,775) and further in view of Davis et al (USPAP 20090070263).

Re claim 8: Singhal teaches a telecommunication system comprising:

a) an electronic communication device connected to and configured for communication over a telecommunication network, the electronic device comprising:

a device communication facility permitting communication over the telecommunication network via secure session; and

a processor configured for running a secure application for (i) authenticating or obtaining authentication information from a payer, (ii) communication via secure sessions and accessing secure databases, (iii) receiving payee identifying and real account and financial institution (iv) receiving a selection by the payer of a funding source and at least one real account associated with the payer (abstract, 0046-0049, 0069, 0075-0077, 0111-0113, 0127, fig. 9A); and

b) a brokerage server, operated by a payment broker and connected to and configured for communication over the telecommunication network, the brokerage server comprising

a server communication facility permitting communication over the telecommunication network via a secure session;

a computer memory comprising a secure database; a processor configured for (i) receiving authentication information via the telecommunication network using the server communication facility, (ii) authenticating and identifying the payer based on the authentication information, (iii) receiving, via the telecommunication network, an instruction from the payer instructing that a payment be made electronically from the payer-selected funding source and at least one payer selected real account thereof to a real account and financial institution, other than the payment broker, associated with the payee (0093, 0096-0099, 0102 fig, 10)

Singhal does not explicitly teach

{a. (v)} receiving a selection by the payer of at least one real account and financial institution associated with the payee;

{b. (iv)} computationally retrieving, from the secure database, information identifying the payer selected funding source and the at least one payer selected real account thereof and the payee and the payer selected real account of the payee at a financial institution other than the payment broker, (v) requesting, via the telecommunication network using the server communication facility, the server of the payer-selected funding source to authorize the payment to the payee, (vi) if the payment is authorized by the server of the payer-selected funding source, instructing such server, via the telecommunication network using the server communication facility, to cause the payment to be made electronically to the payee on the funding source's behalf by a third party other than the payment broker such that the identities of the payer-selected funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee and such real-account identifying information is not transmitted to, received or stored by the payee's depository bank or other financial institution,
and (vii) instructing the server of tile payer-selected funding source, via the telecommunication network using the server communication facility, to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of tile payer at the funding source;

{c} a funding source server, operated by a payer-selected funding source and connected to and configured for communication over the telecommunication network-, the funding source server comprising:

a server communication facility permitting communication over the telecommunication network; a computer memory comprising a secure database; and a processor configured for (i) receiving; via the telecommunication network using the server communication facility, the request from the

payment broker server for authorization of the payment, (ii) computationally retrieving, from a secure database, information identifying the payer and the at least one payer-selected real account of the payer at the funding source, (iii) authorizing or denying the requested payment, (iv) in response to instruction from the payment broker server following authorization, instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third party's name and not the name of the payment broker, the funding source or the payer, thereby preventing divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer, and (v) reimbursing or transferring the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source.

Scipioni/Del Favero teaches the concept of receiving a selection by the payer of at least one real account and financial institution associated with the payee; computationally retrieving, from the database, information identifying the payer selected funding source and the at least one payer selected real account thereof and the payee and the payer selected real account of the payee at a financial institution other than the payment broker (Scipioni: 0023, 0030, 0036-0038; Del Favero: abstract, col. 5, lines 31-46, col. 4, lines 18-28), (v) requesting, via the telecommunication network using the server communication facility, the server of the payer-selected funding source to authorize the payment to the payee (Scipioni: 0036-0038; Del Favero: col. 1, lines 65 through col. 2, line 25), (vi) if the payment is authorized by the server of the

payer-selected funding source, instructing such server, via the telecommunication network using the server communication facility, to cause the payment to be made electronically to the payee on the funding source's behalf by a third party other than the payment broker such that the identities of the payer-selected funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee and such real account identifying information is not transmitted to, received or stored by the payee's depository bank or other financial institution (Scipioni: abstract, 0023, 0030, 0036-0038; Del Favero: col. 1, lines 65 through col. 2, line 25) and (vii) instructing the server of the payer-selected funding source, via the telecommunication network using the server communication facility, to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source (Scipioni: 0022-0023, fig. 1, ele. 120; Del Favero: col. 5, lines 56 through col. 6, line 2 & lines 34-45).

Del Favero further teaches a funding source the is configured to (i) receiving; via the telecommunication network using the server communication facility, the request from the payment broker server for authorization of the payment (fig. 1, ele. 112), (ii) computationally retrieving, from a database, information identifying the payer and the at least one payer-selected real account of the payer at the funding source (fig. 1, col. 5, lines 31-46, col. 4, lines 18-28), (iii) authorizing or denying the requested payment (col. 5, lines 31-46, col. 4, lines 18-28), (iv) in response to instruction from the payment broker server following authorization, instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third

party's name and not the name of the payment broker, the funding source or the payer, thereby preventing divulgation, both of the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer (col. 6, lines 26-45).

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify Singhal to include these features as taught by Scipioni/Del Favero for the obvious reason of allowing the payer to designate the payee's account information by supplying sufficient information about the payee to enable the service provider to effect payment to the payee in the desired amount without divulging the payer's funding source in the process by using the transaction clearing device 120 and the EFT network (Scipioni: 0022-0023, 0036, 0038).

Singhal and/or Scipioni/Del Favero does not explicitly teach reimbursing or transferring the amount to the third party from the at least one payer selected real account of the payer at the funding source.

Davis teaches this concept at 0056, 0063, 0066. Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify Singhal/Scipioni/Del Favero to include these features as taught by Davis for the obvious reason of guaranteeing that the third party gets paid after the transfer (0066).

Re claims 3: Singhal and/or Scipioni/Del Favero further teach(es) wherein the brokerage server communicates with the payer via the telecommunication network using a payer electronic device (Singhal: 0038-0043; Scipioni: fig. 1, ele. 102; Del Favero: fig. 1).

Re claims 4: Singhal and/or Scipioni/Del Favero further teach(es) wherein the brokerage server communicates with the payee via the telecommunication network using a payee electronic device (Singhal: 0038-0043; Scipioni: fig. 1, ele. 104; Del Favero: fig. 1).

Re claims 5: Scipioni/Del Favero further teaches wherein the database comprises a plurality of records for payers and payees, each payer record comprising authentication information and at least one funding source and one real account associated with the payer, and each payee record comprises at least identification information associated with the payee and at least one financial institution and at least one real account associated witht eh payee (Scipioni: fig. 1, ele. 126; Del Favero: fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify Singhal to include these features as taught by Scipioni/Del Favero for the obvious reason of enhancing the functionality of the system (0036, 0038).

Response to Arguments

Applicant's arguments filed 5/6/2016 have been fully considered but they are not persuasive.

Re 101 rejection: Applicant argues that the claims recites technical solution to a technical problem that has risen only recently in the context of, and due to the very nature of, mobile electronic commerce. Applicant cites the *DDR Holdings* case as relevant to the instant claims.

Examiner respectfully disagrees. Applicant admits that conventionally, a payer can contract with a third party to make a payment on the payer' s behalf and in the third party' s name, thereby shielding the identity of the payer's funding source and real account; for example, the payer may pay the third party by check, and the third party may mail its own check to the payee (similar to the Del Favero reference). That in itself is an admission that the claimed invention is an abstract idea similar to the kind of 'organizing human activity' and/or 'fundamental economic practice' at issue in Alice Corp. Applicant contends that the situation is different if payments are to be made electronically because the infrastructure of financial transactions is set up for auditability, which favors inclusion of chain-of-transaction details at each step. While this assertion is true, it is also true that any attempt to limit an abstract idea to a particular technological environment (in this case, electronic fund transfer (EFT) vs mailing of physical check) regardless of its advantages or disadvantages does not make the claim less abstract. For example, it is well known that EFT is a faster means for transferring funds when compared to mailing of check. However, substituting check mailing with EFT in a claim that is determined to be abstract makes no difference. It does not make the claim less abstract in spite of the advantages of using EFT or disadvantages of using check mailing. Similarly, while the auditability of EFT transaction and the inclusion of chain-of transaction is not in doubt, the method used to overcome this issue can be achieved "manually" by the organizing human activity since the claimed invention is not directed to EFT itself, rather, it is directed to using

EFT to achieve a purpose. The problem with which the applicant is concern can be similarly resolved using paper checks for mailing. The claims are not patent eligible.

Applicant used the term "secure" or "secured" in the amended claims. Examiner notes that this terms do not make any difference in terms of claim interpretation because the manner in which the database/session is "secured" is not described in the claim.

Further note *In re Venner,* 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) where providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art, MPEP 2144.04 (III); as well as *Leapfrog Enterprises Inc. v. Fisher-Price Inc.*, 485 F.3d 1157, 1162, 82 USPQ2d 1687, 1692 (Fed. Cir. 2007) and *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 87 USPQ2d1350 (Fed. Cir. 2008), where the application of modern electronics to the prior art was deemed obvious. Thus, considering the level of ordinary skill in the art in automating similar processes, claimed invention would also have been obvious over Bilski per *Venner*, *Leapfrog,* and *Muniauction*.

Furthermore, Applicant argues the references do not teach "in response to instruction from the payment broker server following authorization, instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third party's name and not in the name of the payment broker, the funding source or the payer, thereby preventing divulgation,

both to the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer thereof to the payee".

Examiner respectfully disagrees. Del Favero at col. 6, lines 34-45 recites

> "Alternatively, the physical check may be generated for the recipient by a third-party payment processor. In this scenario, the electronic check system may send a request to the third-party payment processor. Upon receipt of the request by the third-party payment processor, the third-party payment processor generates and sends the check to the recipient. In one embodiment of the invention, the check generated by the third-party payment processor transfers funds {from} an account associated with the third-party payment processor. In such cases, sufficient funds are transferred ~~from~~ {to} the recipient ~~to~~ {from} the third-party payment processor via, for example, the electronic check system."

Examiner notes that this paragraph includes typos corrected by the Examiner in order for it to make sense. The word in { } are added by Examiner. Here the electronic check system (representing the payment broker) instruct the third party processor (representing the third party) to send the payment to the recipient. Since the check is generated by the third party, and funds are withdrawn from the third party's account, it inherently means that the identity of payer's funding source and/or account number is not divulged to the payee or the payee's financial institution.

Therefore, from the above paragraph, it is clear that the funds are remitted from the third party's account without divulging the account information of the payer.

Furthermore, Davis teaches the same concept at 0066

Conclusion

THIS ACTION IS MADE FINAL. 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 mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLABODE AKINTOLA whose telephone number is (571)272-3629. The examiner can normally be reached on M-F 8:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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

/OLABODE AKINTOLA/
Primary Examiner, Art Unit 3691

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:	Charles Fote	CONFIRMATION NO.:	6430
SERIAL NO.:	14/455,526	GROUP NO.:	3691
FILING DATE:	August 8, 2014	EXAMINER:	O. Akintola
TITLE:	BROKER-MEDIATED PAYMENT SYSTEMS AND METHODS		

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Alexandria, VA 22313-1450

RESPONSE AFTER FINAL REJECTION

This paper is responsive to the final Office Action mailed on May 31, 2016 in the above-identified patent application (the "Office Action").

Listing of claims begins on page 2 of this paper; and

Remarks begin on page 5 of this paper.

Applicant believes that no additional fees are necessitated by the present paper. However, in the event that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 50-0310 (FOT-002C1).

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

Listing of claims

1. (Canceled)

2. (Canceled)

3. (Previously presented) The telecommunication system of claim 8, wherein the brokerage server communicates with the payer via a secure session over the telecommunication network using a hand-held payer electronic device.

4. (Previously presented) The telecommunication system of claim 8, wherein the brokerage server communicates with the payee via a secure session over the telecommunication network using a payee electronic device.

5. (Previously presented) The telecommunication system of claim 8, wherein the brokerage server database comprises a plurality of records for payers and payees, each payer record comprising authentication information and at least one funding source and one real account associated with the payer, and each payee record comprises at least identification information associated with the payee and at least one financial institution and at least one real account associated with the payee.

6. (Canceled)

7. (Canceled)

8. (Previously presented) A telecommunication system comprising:

a) an electronic communication device connected to and configured for communication over a telecommunication network, the electronic device comprising:

a device communication facility permitting communication over the telecommunication network via a secure session; and

a processor configured for running a secure application for (i) authenticating or obtaining authentication information from a payer, (ii) communicating via secure sessions and accessing secure databases, (iii) receiving payee identifying and real account and financial institution information, (iv) receiving a selection by the payer of a funding source and at least one real account associated with the payer, and (v) receiving a selection by the payer of at least one real account and financial institution associated with the payee;

b) a brokerage server, operated by a payment broker and connected to and configured for communication over the telecommunication network, the brokerage server comprising:

a server communication facility permitting communication over the telecommunication network via a secure session;

a computer memory comprising a secure database; and

a processor configured for (i) receiving authentication information via the telecommunication network using the server communication facility, (ii) authenticating and identifying the payer based on the authentication information, (iii) receiving, via the telecommunication network using the server communication facility, an instruction from the payer instructing that a payment be made electronically from the payer-selected funding source and at least one payer-selected real account thereof to a payer-selected real account and financial institution, other than the payment broker, associated with the payee, the selection of the real account and financial institution associated with the payee being controlled by the payer and not by the payee, (iv) computationally retrieving, from the secure database, information identifying the payer-selected funding source and the at least one payer-selected real account thereof and the payee and the payer-selected real account of the payee at a financial institution other than the payment broker, (v) requesting, via the telecommunication network using the server communication facility, the server of the payer-selected funding source to authorize the payment to the payee, (vi) if the payment is authorized by the server of the payer-selected funding source, instructing such server, via the telecommunication network using the server communication facility, to cause the payment to be made electronically to the payee on the funding source's behalf by a third party other than the payment broker such that the identities of the payer-selected

funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee and such real-account identifying information is not transmitted to, received or stored by the payee's depository bank or other financial institution, and (vii) instructing the server of the payer-selected funding source, via the telecommunication network using the server communication facility, to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source; and

c) a funding source server, operated by a payer-selected funding source and connected to and configured for communication over the telecommunication network, the funding source server comprising:

a server communication facility permitting communication over the telecommunication network;

a computer memory comprising a secure database; and

a processor configured for (i) receiving, via the telecommunication network using the server communication facility, the request from the payment broker server for authorization of the payment, (ii) computationally retrieving, from a secure database, information identifying the payer and the at least one payer-selected real account of the payer at the funding source, (iii) authorizing or denying the requested payment, (iv) in response to instruction from the payment broker server following authorization, instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third party's name and not in the name of the payment broker, the funding source or the payer, thereby preventing divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer, and (v) reimbursing or transferring the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source.

REMARKS

The undersigned thanks the Examiner for his time and courtesy during the telephone interview that took place on June 28, 2016. The undersigned notes that the discussion focused on the arguments presented herein. Accordingly, this paper is intended to constitute a proper recordation of the interview in accordance with MPEP §713.04, and also to provide a full response to the Office Action.

After entry of this amendment, claims 3, 4, 5, and 8 will be pending in this application. No claims are amended, and this paper addresses only the prior-art rejections set forth in the Office Action in order to place the application in better condition for appeal. In particular, the Examiner rejected claims 3-5 and 8 under 35 U.S.C. §103 as being unpatentable over U.S. Patent Publ. No. 2002/0062281 (hereafter "Singhal") in view of U.S. Patent Publ. No. 2012/0296821 (hereafter "Scipioni") and U.S. Patent No. 8,073,775 (hereafter "Del Favero"), and further in view of U.S. Patent Publ. No. 2009/0070263 (hereafter "Davis").

As discussed during the interview, the present claims recite a system topology different from that disclosed in the prior art. In particular, the claims recite a a funding source server operated by a payer-selected funding source. It is this server that receives the request from the payment broker server, instructs the third party (which cannot be the payment broker) to make the payment electronically to the payee, and reimburses the third party. The claimed topology can be represented as follows:

Payer → broker → ***funding source*** → third party → third party's financial institution → payee

Del Favero, by contrast, contemplates the following topology:

Payer → broker → third party → payee

There is no funding source server in Del Favero's system; no funding source participates in the transaction, nor is any funding source even designated by the payer. Taking the funding source out of the picture means that (i) there is no identified way for the third party to be reimbursed for the payment check that it sends to the payee ("recipient"), and (ii) the payer must somehow have the third party reimbursed in a sufficiently separate transaction so as to avoid leakage of the payer's sensitive funding source and account information to the recipient.

Moreover, in Del Favero, the third party pays the payee by a physical check; the pending claims, by contrast, require a fully electronic series of transactions including electronic payment without divulgation.

Davis, too, omits the funding source from the payment transaction, requiring the third party advancing the payment to the payee to seek reimbursement from the payer's ("requester's") credit or debit card company in a separate later transaction:

Payer → third party → payee
↑
Credit or debit
card company

That is, Davis does not disclose a funding source instructing a third party to make a payment on behalf of the funding source's customer from an account of the third party at the third party's financial institution so as to avoid divulgation of the payer's sensitive financial information. Once again, as set forth in ¶[0066] of Davis (cited by the Examiner), reimbursement is carried out separately from the payment transaction.

Moreover, in Davis, the third party acts as the payment broker, contrary to the limitations of claim 8, which requires "at least one third party *other than the payment broker* to make the payment electronically to the payee from a real account and financial institution associated with the third party and in the third party's name." Accordingly, the present claims cannot read on Davis.

In light of the foregoing, we respectfully submit that all claims are now in condition for allowance. Applicant believes that no additional fees are necessitated by the present response. However, in the event that any additional fees are due, the Commissioner is hereby authorized to charge any such fees to Deposit Account No. 50-0310.

Respectfully submitted,

Date: July 5, 2016
Reg. No. 33,497

Electronic Signature: /Steven J. Frank/
Steven J. Frank
Attorney for the Applicants
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Advisory Action Before the Filing of an Appeal Brief	**Application No.** 14/455,526	**Applicant(s)** FOTE, CHARLES T.	
	Examiner OLABODE AKINTOLA	**Art Unit** 3691	**AIA (First Inventor to File) Status** Yes

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

THE REPLY FILED 05 July 2016 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed: .
    Claim(s) objected to: .
    Claim(s) rejected: 3-5 and 8.
    Claim(s) withdrawn from consideration: .

Continuation of 12. does NOT place the application in condition for allowance because: Applicant's argument regarding the 103 prior art rejection is persuasive. THe 103 rejection is hereby withdrawn. However, the 101 rejection is maintained. For purposes of Appeal, only the 101 rejection is pending.

PTO/AIA/31 (03-14)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

NOTICE OF APPEAL FROM THE EXAMINER TO THE PATENT TRIAL AND APPEAL BOARD

Docket Number (Optional): FOT-002C1

I hereby certify that this correspondence is being facsimile transmitted to the USPTO, EFS-Web transmitted to the USPTO, or deposited with the United States Postal Service with sufficient postage in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, on Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on _____.

Signature _____

Typed or printed name _____

In re Application of: Charles T. FOTE

Application Number	Filed
14/455,526	August 8, 2014

For: BROKER-MEDIATED PAYMENT SYSTEMS AND METHODS

Art Unit	Examiner
3691	Olabode Akintola

Applicant hereby **appeals** to the Patent Trial and Appeal Board from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) $ 800

☑ Applicant asserts small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by 50%, and the resulting fee is: $ 400

☐ Applicant certifies micro entity status. See 37 CFR 1.29. Therefore, the fee shown above is reduced by 75%, and the resulting fee is: $ _____
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☑ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 50-0310.

☑ Payment made via EFS-Web.

☐ A petition for an extension of time under 37 CFR 1.136(a) (PTO/AIA/22 or equivalent) is enclosed.
For extensions of time in reexamination proceedings, see 37 CFR 1.550.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☐ applicant

☑ attorney or agent of record
Registration number 33,497

☐ attorney or agent acting under 37 CFR 1.34
Registration number _____

Signature /Steven J. Frank/

Typed or printed name Steven J. Frank

Telephone Number 617-951-8770

Date July 14, 2016

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

☑ * Total of 1 forms are submitted.

This collection of information is required by 37 CFR 41.20(b)(1) and 41.31. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Charles Fote	CONF. NO.:	6430
SERIAL NUMBER:	14/455,526	ART UNIT:	3691
FILING DATE:	August 8, 2014	EXAMINER:	O. Akintola
TITLE:	BROKER-MEDIATED PAYMENT SYSTEMS AND METHODS		

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Alexandria, VA 22313-1450

BRIEF ON APPEAL

This Appeal Brief is submitted in accordance with 37 C.F.R. § 41.37. A petition for a one-month extension of time is submitted herewith. Appellants believe that no additional fee is due for this Appeal Brief to be entered and considered. However, please consider this a conditional petition for the proper extension, if one is required. The Commissioner is hereby authorized to charge any additional fees that may be due, for further extensions of time or any other purpose associated with this submission, or credit any overpayment, to Appellants' undersigned counsel's deposit account number 50-0310.

REAL PARTY IN INTEREST

The real party in interest is the assignee, Fotec Group LLC, of the present application and its now-abandoned parent pursuant to an assignment recorded in the records of the U.S. Patent and Trademark Office on May 23, 2014, at Reel/Frame No. 033014/0294.

RELATED APPEALS AND INTERFERENCES

No other appeals or interferences directly affect or will be directly affected by the Board's decision in the present appeal.

SUMMARY OF CLAIMED SUBJECT MATTER

With respect to embodiments within independent claim 8, Appellants have invented a telecommunication system comprising (a) an electronic communication device connected to and configured for communication over a telecommunication network,[1] where the electronic device comprises a device communication facility permitting communication over the telecommunication network via a secure session[2] and a processor[3] configured for running a secure application for (i) authenticating or obtaining authentication information from a payer, (ii) communicating via secure sessions and accessing secure databases, (iii) receiving payee identifying and real account and financial institution information, (iv) receiving a selection by the payer of a funding source and at least one real account associated with the payer, and (v) receiving a

[1] Specification as filed at page 11, line 7-13; page 17, lines 25-30.
[2] *Id.*, page 31, lines 29-31.
[3] *Id.*, page 11, lines 7-13.

selection by the payer of at least one real account and financial institution associated with the payee[4]; (b) a brokerage server,[5] operated by a payment broker and connected to and configured for communication over the telecommunication network, where the brokerage server comprises a server communication facility permitting communication over the telecommunication network via a secure session,[6] a computer memory comprising a secure database,[7] and a processor[8] configured for (i) receiving authentication information via the telecommunication network using the server communication facility,[9] (ii) authenticating and identifying the payer based on the authentication information,[10] (iii) receiving, via the telecommunication network using the server communication facility, an instruction from the payer instructing that a payment be made electronically from the payer-selected funding source and at least one payer-selected real account thereof to a payer-selected real account and financial institution, other than the payment broker, associated with the payee, the selection of the real account and financial institution associated with the payee being controlled by the payer and not by the payee,[11] (iv) computationally retrieving, from the secure database, information identifying the payer-selected funding source and the at least one payer-selected real account thereof and the payee and the payer-selected real account of the payee at a financial institution other than

[4] *Id.*, page 14, lines 1-3; page 16, lines 26 to page 27, line 4; page 17, lines 25-30; page 21, line 30 to page 22, line 2; page 24, line 23 to page 25, line 2; page 25, lines 22-27; page 31, lines 8-28; page 46, line 29 to page 47, line 8.
[5] *Id.*, page 11, line 28 to page 12, line 4.
[6] *Id.*, page 14, lines 3-6; page 22, lines 2-5; page 31, lines 29 to 31.
[7] *Id.*, page 14, lines 10-19; page 22, lines 9-18; page 32, lines 23-26; page 33, line13-14; page 46, line 29 to page 47, line 8.
[8] *Id.*, page 14, lines 24-28; page 16, lines 1-9; page 22, lines 23-26; page 24, lines 1-9.
[9] *Id.*, page 16, lines 25 to page 17, line 4; page 24, line 22 to page 25, line 2; page 46, line 29 to page 47, line 8.
[10] *Id.*, page 16, line 26 to page 17, line 4; page 46, line 29 to page 47, line 8.
[11] *Id.*, page 3, lines 10-18; page 9, lines 15-26; page 17, lines 12-24; page 25, lines 9-21; page 37, lines 14-21.

the payment broker,[12] (v) requesting, via the telecommunication network using the server communication facility, the server of the payer-selected funding source to authorize the payment to the payee,[13] (vi) if the payment is authorized by the server of the payer-selected funding source, instructing such server, via the telecommunication network using the server communication facility, to cause the payment to be made electronically to the payee on the funding source's behalf by a third party other than the payment broker such that the identities of the payer-selected funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee and such real-account identifying information is not transmitted to, received or stored by the payee's depository bank or other financial institution,[14] and (vii) instructing the server of the payer-selected funding source, via the telecommunication network using the server communication facility, to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source[15]; and (c) a funding source server,[16] operated by a payer-selected funding source and connected to and configured for communication over the telecommunication network, the funding source server comprising a server communication facility permitting communication over the telecommunication network,[17] a computer memory

[12] *Id.*, page 17, lines 30 to page 18, line 2; page 25, lines 27-30; page 32, lines 23-26; page 41, lines 15-21; page 46, line 29 to page 47, line 8.
[13] *Id.*, page 9, lines 15-26; page 18, lines 13-18; page 26, lines 10-14; page 33, lines 3-7; page 40, lines5-15.
[14] *Id.*, page 9, lines 1-15, page 43, line 19; page 44, lines 9-16.
[15] *Id.*, page 3, lines 10-17; page 9, lines 7-26; page 20, lines 4-8; page 27, lines 26-30; page 44, line 29 to page 45, line 7; page 45, lines 20-29.
[16] *Id.*, page 10, lines 16-30; page 14, lines 24-28; page 16, lines 1-9; page 22, lines 23-29; page 24, lines 1-9.
[17] *Id.*, page 14, lines 19-24; page 18, lines 13-18; page 22, lines 18-22; page 26, lines 10-14; page 40, lines 8-15; page 46, lines13-28.

comprising a secure database,[18] and a processor[19] configured for (i) receiving, via the telecommunication network using the server communication facility, the request from the payment broker server for authorization of the payment,[20] (ii) computationally retrieving, from a secure database, information identifying the payer and the at least one payer-selected real account of the payer at the funding source,[21] (iii) authorizing or denying the requested payment,[22] (iv) in response to instruction from the payment broker server following authorization, instructing, via the telecommunication network using the server communication facility, at least one third party other than the payment broker to make the payment electronically to the payee from a real account of the third party at a financial institution associated with the third party and in the third party's name and not in the name of the payment broker, the funding source or the payer, thereby preventing divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the funding source and the at least one payer-selected real account of the payer,[23] and (v) reimbursing or transferring the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source.[24]

[18] *Id.*, page 14, line 24 to page 15, line 5; page 15, lines 22-31; page 22, line 23 to page 23, line 5; page 41, lines 15-21.
[19] *Id.*, page 14, line 24 to page 15, line 5; page 16, lines 1-9; page 22, line 23 to page 23, line 4; page 24, line 1-9.
[20] *Id.*, page 18, lines 19-21; page 26, lines 15-17; page 42, lines 6-14; page 46, lines 13-28.
[21] *Id.*, page 15, lines 22-31; page 18, lines 19-21; page 23, lines 20-29; page 26, lines 15-17; page 32, lines 26-29; page 41, lines 15-19; page 42, lines 6-11.
[22] *Id.*, page 18, lines 19-21; page 26, lines 15-17.
[23] *Id.*, page 9, lines 1-26; page 40, lines 8-31; page 43, line 19; page 44, lines 9-16.
[24] *Id.*, page 45, lines 20-29.

Dependent claims 3 and 4 specify, respectively, that the brokerage server communicates with the payer via a secure session over the telecommunication network using a hand-held payer electronic device[25] or a payee electronic device.[26]

Dependent claim 5 specifies that the brokerage server database comprises a plurality of records for payers and payees, each payer record comprising authentication information and at least one funding source and one real account associated with the payer,[27] and each payee record comprises at least identification information associated with the payee and at least one financial institution and at least one real account associated with the payee.[28]

[25] *Id.* at page 11, lines 6-13; page 17, lines 25-30; page 25, lines 22-27; page 31, lines 29-31.
[26] *Id.*, page 11, lines 6-13; page 32, lines1-2 and lines 14-16.
[27] *Id.*, page 14, lines 9-19; page 22, lines 8-18; page 32, lines 23-29.
[28] *Id.*, page 36, line 29 to page 37, line 3; page 37, lines 18-21

ARGUMENT

The present appeal involves claims that were successfully examined against relevant prior art and deemed novel and unobvious thereover, and patentable under 35 U.S.C. §112, but which are nonetheless rejected as patent-ineligible "abstractions" under 35 U.S.C. §101. This brief will attempt to demonstrate that the claimed subject matter is patent-eligible under applicable case law.

I. Legal Framework

Under *Mayo Collaborative Servs. vs. Prometheus Labs., Inc.*[29] and *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*[30] (hereafter, "*Alice*"), the U.S. Supreme Court set forth a two-step analytical framework to evaluate whether patent claims constitute abstract (and therefore unpatentable) subject matter under §101. The reviewing authority must first "determine whether the claims at issue are directed to a patent-ineligible concept,"[31] and if so, must then "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application."[32]

II. The Present Claims Are Not Directed to a Patent-Ineligible Concept

In the final Office Action dated June 17, 2016 (the "Final Office Action"), the Examiner characterized the claims as "describ[ing]a process of electronic funds transfer,"

[29] 132 S.Ct. 1289 (2010).
[30] 134 S.Ct. 2347 (2014).
[31] Alice, 134 S.Ct. at 2355.
[32] *Id.*

and stated that "the abstract idea of electronic fund transfer using a third party is similar to the abstract idea" analyzed in *Alice*. We respectfully submit that, even at a high level, the present claims are no more directed to the "abstract" concept of electronic funds transfer than a claim to a mousetrap would be to the abstract notion of pest control.

Independent claim 8 recites a telecommunication system involving an electronic communication device such as a mobile phone and two distinct servers, each defined in detail. The recited device and servers intercommunicate over a telecommunication network in a specific fashion to preclude divulgation, both to the payee's depository bank or financial institution and to the payee, of the identity of the payer's funding source and the payer-selected real account(s) of the payer in the course of a payment transaction. If this is "abstract," it is difficult to imagine what claim could escape that fatal designation since, as has been understood for many decades, reducing any invention to words involves a degree of abstraction.[33]

In the recent case of *Enfish, LLC v. Microsoft Corp.*,[34] the Federal Circuit determined that a claimed invention qualified as patentable subject matter under the first *Alice* test because the claims focused on an improvement to computer functionality. Here, the claims focus on an improvement at the system level to transaction processing

[33] "The difficulty which American courts … have had … goes back to the primitive thought that an 'invention' upon which the patent gives protection is something tangible. The physical embodiment or disclosure, which, in itself is something tangible is confused with the definition or claim to the inventive novelty, and this definition or claim or monopoly, also sometimes called 'invention' in one of that word's meanings is not something tangible, but is an abstraction. *Definitions are always abstractions.* This primitive confusion of 'invention' in the sense of physical embodiment with 'invention' in the sense of definition of the patentable amount of novelty, survives to the present day, not only in the courts, but among some of the examiners in the Patent Office." E. Stringham, *Double Patenting* (1933) (emphasis added).

[34] 118 USPQ2d 1684 (Fed. Cir. 2016).

involving an electronic communication device, a brokerage server, and a funding source server. The claims do not recite "organizing human activity" or a "fundamental economic practice" at an abstract level, where the only new element is a computer or a network implementing what is well-known. Rather, they are directed to the technical problem of validly effecting a transfer of funds without divulgation of sensitive payer information in a technical environment biased toward the accumulation and transmission of such information for audit purposes. The claims recite use of secure applications, secure sessions, secure databases, and require that, via a secure application and the payment broker's server the payer, and not the payee, selects the payee's financial institution and real account where the electronic payment to the payee is to be made — which financial institution may not be the payment broker.[35] The latter limitation reduces the risk of a fraudulent diversion of payment funds by non-payees and also reduces the risk of divulgation of sensitive payer information.

Claim 8 further requires that the payment broker's server instructs the server of the payer's funding source to itself instruct a third party other than the payment broker or the payer's funding source to make the electronic payment to the payee from a real account and financial institution associated with such third party and in such third party's name. This specific sequence prevents divulgation of the identity of the payer's funding source and real account information to the payee's depository institution and the payee. In particular, it breaks the transmission of chain-of-transaction payment details that conventionally accompany an electronic payment and which could otherwise disclose

[35] *See* specification at page 3, line 10 to page 3, line 18; page 9, line 15 to page 9, line 24; page 9, line 28 to page 9, line 30; and page 40, line 8 to page 41, line 10.

sensitive payer information to the payee's depository institution and the payee. Furthermore, preventing the payee from receiving sensitive payer information advantageously relieves the payee of the need to safeguard this information in order to prevent its possible misappropriation or misuse.

More specifically, a modern electronic payment transaction involves a series of "hops" among servers that occur in a prescribed sequence in order to prevent fraud and ensure reliability and accuracy. As a message traverses these hops, it typically accumulates timestamp and routing information for later auditability. These details may ultimately become available to the payee, who may thereby learn the identity of the payer's funding source; indeed, sophisticated malefactors may learn more than this, e.g., the payer's account information. Breaking the chain of transactional transmissions that accumulate and risk exposure of this information, while not disturbing the overall sequence of transmissions required for the consummation of a valid electronic transaction, represents a technical solution to a technical problem. Just as the claims in *Enfish* were found to be "directed to a specific implementation of a solution to a problem in the software arts,"[36] the present claims likewise recite a specific implementation of a solution to a problem in the art and practice of electronic commerce.

[36] 118 USPQ2d at 1691.

III. The Present Claims Recite a Patent-Eligible "Ordered Combination"

A. The claims solve a network-centric problem with a claimed solution that is necessarily rooted in computer technology

Even if the present claims are considered to be directed to "abstract" subject matter under the first *Alice* test, they clearly qualify as patentable under the second step of the analysis. Two recent Federal Circuit cases, as well as guidelines established by the Office, strongly favor a determination of patentability.

In *DDR Holdings, LLC v. Hotels.com, LP*,[37] the Federal Circuit distinguished between "the routine or conventional use of the Internet" and claims to a solution "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." The *DDR* court noted that

> it is true that the claims here are similar to the claims in the cases discussed above in the sense that the claims involve both a computer and the Internet. But these claims stand apart because they do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.[38]

This reasoning applies with equal force to the present invention. To appreciate the problem it addresses and how this problem "specifically aris[es] in the realm of computer networks," it is important to recognize that the security issues affecting electronic commerce and mobile electronic communication devices are new and fundamentally different from traditional security issues involving in-person transactions. Specifically, a payer may wish to make a payment without divulging the identity of his

[37] 113 USPQ2d 1097 (Fed. Cir. 2014).
[38] 773 F.3d at 1257.

funding source and real account. Conventionally, the payer can contract with a third party to make a payment on the payer's behalf and in the third party's name, thereby shielding the identity of the payer's funding source and real account; for example, the payer may pay the third party by check, and the third party may mail its own check to the payee. Auditability is not an object or concern of such conventional arrangements and no chain-of-transaction details accompany the final payment check to the payee that could compromise the payer's sensitive funding source or real account information.

Payments made electronically over telecommunication networks, by contrast, present vulnerabilities unknown and inapplicable to such conventional arrangements. For example, in "man in the middle" attacks, malicious actors acquire information from both the payer and the payer's funding source, and piece these together to masquerade as one of the end parties. Vulnerability to electronic tampering is particularly acute in the case of electronic payments to the payee, because, as noted above, the basic infrastructure of electronic payment transactions is set up for auditability, which favors inclusion of chain-of-transaction details at each step. Those details can reveal the payer's funding source and real account information.

This invention, like the "network-centric" invention in *DDR*, addresses these network-based security holes by (i) authenticating the payer and obtaining information using a secure application, communicating via secure sessions and using secure databases, (ii) allowing the payer to select the payee account and financial institution to which the electronic payment to the payee will be made, (iii) ensuring that the payment destination is a third party other than the payment broker (which could compromise information), and (iv) requiring that the electronic payment to the payee originate from a

real account and financial institution associated with a third party other than the payment broker or the payer's funding source and in the third party's name. Thus, this is a network-based solution to a network-based problem, with specific operations that are only meaningful over a network; it is not a basic financial transaction that happens to be carried out over a network as a generic alternative to traditional channels.

The December 16, 2014 Guidance concerning Section 101, issued by the Office, commented on *DDR* as follows:

> The court held that, unlike in *Ultramercial*, the claim does not generically recite "use the Internet" to perform a business practice, but instead recites a specific way to automate the creation of a composite Web page by an outsource provider that incorporates elements from multiple sources in order ***to solve a problem faced by Web sites on the Internet***. Therefore, the court held that the claim is patent eligible.

(emphasis added). The applicability of *DDR* to the present claims is highlighted by Example 21 of the Office's July 2015 Update Appendix to its §101 examination guidelines. In this "transmission of stock quote data" example, the Office cites *DDR* and concludes that claim 2 is eligible, noting:

> The claimed invention addresses the Internet-centric challenge of alerting a subscriber with time sensitive information when the subscriber's computer is offline. This is addressed by transmitting the alert over a wireless communication channel to activate the stock viewer application, which causes the alert to display and enables the connection of the remote subscriber computer to the data source over the Internet when the remote subscriber computer comes online. These are meaningful limitations that add more than generally linking the use of the abstract idea (the general concept of organizing and comparing data) to the Internet, because they solve an Internet-centric problem with a claimed solution that is necessarily rooted in computer technology, similar to the additional elements in DDR Holdings.

Here, too, the problem is network-centric in nature and by definition: the claims recite electronic payments and security measures specific *only* to electronic payments and *not* to traditional payment modalities.

B. The claims must be analyzed *as a whole*

Quite recently, in *BASCOM Global Internet Servs. v. AT&T Mobility, LLC*,[39] the Federal Circuit confirmed as patentable, under the second *Alice* step, claims to an invention that solves a "problem in a particular, technical way." The court stressed that "[t]he inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art. … [A]n inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces."

We respectfully submit that the Examiner errs in characterizing the present claims as reciting "only a processor, memory and transmitter to simply perform the generic computer functions of receiving, processing and transmitting information."[40] As explained above, the claims recite three intercommunicating devices, their operational components, the specific manner in which they are configured to interact and the particular data and instructions they are configured to receive and transmit. These are not reasonably characterized as "[g]eneric computers performing generic computer functions" as the Examiner contends.

Nor is the Examiner justified in characterizing the telecommunication network limitations as "simply a field of use." Claim 8 sets forth a specific series of operations undertaken in sequence by the three recited system devices. These involve electronic authentication, receipt of payment instructions including the payer's selection of a payer funding source and payer real account to be used for the payment and the payer's selection of a payee depository institution and real account to which the payment is to be

[39] 2016 BL 204401.
[40] Final Office Action at 3.

made, ensuring that the payment destination is a third party other than the payment broker, and requiring that the electronic payment to the payee originate from a real account and financial institution associated with a third party other than the payment broker or the payer's funding source and in the third party's name. These specific requirements cannot be equated to simply carrying out a traditional in-person transaction over a telecommunication network, as the Examiner contends. Instead, the present claims *solve a problem* that arises in network-based payment transactions and not in traditional transactions that do not utilize a network. The claims, viewed *as a whole* as required under *Alice*, clearly solve that "problem in a particular, technical way."

C. The claims do not pre-empt other ways to prevent divulgation of information

The *BASCOM* court also noted that the claims it found to be patent-eligible did not pre-empt all ways of solving the problem to which they were directed, and here, one need look no further than the prior art cited by the Examiner (and over which the present claims were found to distinguish) to locate alternative approaches to preventing divulgation of sensitive payer information. U.S. Patent No. 8,073,775 discloses payment by check from a third party to the payee, and U.S. Patent Publ. No. 2009/0070263 describes a scenario in which a third party advances payment to the payee and seeks reimbursement from the payer's credit or debit card company in a later transaction. That such alternatives are known means that the present claims cannot be pre-emptive; and their novelty and unobviousness over those alternatives demonstrate that they are not merely conventional.

Even more recently, the Federal Circuit held that in the context of pre-emption, courts should "look to whether the claims in [a patent] focus on a specific means or

method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery."[41] Here, for the reasons set forth above, the claims do indeed focus on specific means to improve the technology of electronic funds transfer. They do not merely recite the problem of preventing divulgation of sensitive information and then "invoke generic processes and machinery"; rather, the claims specify a particular arrangement of components and mode of interaction thereamong. As in *MCRO*, the presently appealed claims do not cover a generic solution, nor could they, since other solutions are described in the very art cited and overcome during prosecution.

In sum, even to the extent that the claims do involve an abstract idea, they nonetheless satisfy §101 in requiring a particular intercommunicating arrangement of well-specified hardware devices interacting in defined ways, and sharing specified data and instructions, to solve a network-centric problem. In this way, the claimed systems add substantial meaningful limitations and go well beyond merely reciting the abstract idea and providing an instruction to "apply it" in any context, much less by a generic computer.

The claims do not foreclose all possible ways of solving the problem, nor do the claims cover an old "fundamental" technique deployed on a network. The claims are limited to a specific arrangement and ordered interactions of devices, resulting in a meaningfully limited and novel system for facilitating electronic payment transactions while both protecting sensitive payer information and avoiding the need for changes to

[41] MCRO, Inc. v. Bandai Namco Games America Inc., Case No. 15-1080 (Fed. Cir. Sept. 13, 2016) (hereafter "*MCRO*"), slip op. at 23.

the transaction-processing infrastructure itself (e.g., suppressing the transmission of information that currently accompanies payment-related messages for audit purposes).

CONCLUSION

We respectfully submit that the Examiner's rejections lack sufficient basis in fact and law. For these reasons, we submit that the Examiner's rejections were erroneous, and reversal thereof is respectfully requested.

Respectfully submitted,

Date: September 16, 2016

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Application Number: 14/455,526
Filing Date: August 08, 2014
Appellant(s): FOTE, CHARLES T.

Steven J. Frank
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 16, 2016.

Every ground of rejection set forth in the Office action dated 6/17/2016 from which the appeal is taken is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

The following ground(s) of rejection are applicable to the appealed claims.

Claims 3-5 and 8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the Examiner.

Claims 3-5 and 8 are rejected under 35 U.S.C. 103 as being unpatentable over Singhal (USPAP 20020062281) in view of Scipioni (USPAP 20120296821)/Del Favero et al (USPN 8,073,775) and further in view of Davis et al (USPAP 20090070263).

(2) Response to Argument

Appellant argues that the claims are not directed to an abstract idea as asserted by Examiner. Appellant, in particular, argues that the claims are directed to a technical problem of validly effecting a transfer of funds without divulgation of sensitive payer information in a technical environment biased towards the accumulation and transmission of such information for audit purposes. Appellant compares instant invention with the *Enfish, LLC* decision.

Examiner respectfully disagrees. Examiner identified the abstract idea in the claim analysis. In particular, the claim is directed to the kind of 'organizing human activity' and/or fundamental business practice similar to the issue in *Alice Corp* and *Bilski*. The invention simply uses a third party/intermediary rather than a traditional payment broker to facilitate electronic payment to a payee from a payer's funding source.

The claims here are unlike the claims in *Enfish*. There, the Court relied on the distinction made in *Alice* between, on one hand, computer-functionality improvements and, on the other, uses of existing computers as tools in aid of processes focused on "abstract ideas" (in *Alice*, as in so many other § 101 cases, the abstract ideas being the creation and manipulation of legal obligations such as contracts involved in fundamental economic practices). *Enfish*, 822 F.3d at 1335–36; *see Alice*, 134 S. Ct. at 2358–59. That distinction, the Supreme Court recognized, has common-sense force even if it may present line-drawing challenges because of the programmable nature of ordinary existing computers. In *Enfish*, the Court applied the distinction to reject the § 101 challenge at stage one because the claims at issue focused not on asserted advances in uses to which existing computer capabilities could be put, but on a specific improvement—a particular database technique—in how computers could carry out one of their

basic functions of storage and retrieval of data. *Enfish*, 822 F.3d at 1335–36; *see Bascom*, 2016 WL 3514158, at *5; *cf. Alice*, 134 S. Ct. at 2360 (noting basic storage function of generic computer). The present case is different: the focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.

In the instant case, the claims' invocation of computers/servers, networks, and database does not transform the claimed subject matter into patent-eligible applications. The claims at issue do not require any nonconventional computer, network, or database components, or even a "non-conventional and non-generic arrangement of known, conventional pieces," but merely call for performance of the claimed facilitation of EFT functions "on a set of generic computer components." *Bascom*, 2016 WL 3514158, at *6–7.

Nothing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and database technology for gathering, sending, and presenting the desired information. The Courts have repeatedly held that such invocations of computers and networks that are not even arguably inventive are "insufficient to pass the test of an inventive concept in the application" of an abstract idea. *buySAFE*, 765 F.3d at 1353, 1355; *see, e.g., Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015); *Internet Patents*, 790 F.3d at 1348–49; *Content Extraction*, 776 F.3d at 1347–48.

Appellant also compares the claims invention with DDR by asserting that the claims solve a network-centric problem with a claimed solution that is necessarily rooted in computer technology.

Examiner respectfully disagrees. In *DDR*, the Federal Circuit decided that although the patent claims at issue there involved conventional computers and the Internet, the claims addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host's website after "clicking" on an advertisement and activating a hyperlink *DDR Holdings, 773 F.3d at 1257*. This is markedly different from the instant invention that introduces an intermediary in the chain of traditional EFT. This claimed solution is not necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks. Appellant admits that conventionally, the payer can contract with a third party to make a payment on the payer's behalf and in the third party's name, thereby shielding the identity of the payer's funding source and real account; for example, the payer may pay the third party by check, and the third party may mail its own check to the payee (typical organization of human activities). Auditability is not an object or concern of such conventional arrangements and no chain-of-transaction details accompany the final payment check to the payee that could compromise the payer's sensitive funding source or real account information. However, Appellant argues that such arrangement is inapplicable in payments made electronically over a telecommunication network. Examiner respectfully disagrees with this assertion. Replacing the activities that can be carried out by humans as admitted by Appellant, with generic computer does not make the claimed invention less abstract (*Alice Corp* and *Bilski*).

Furthermore, Appellant argues that the invention does not pre-empt other ways to prevent divulgation of information.

The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability. Alice, 134 S. Ct at 2354 ("We have described the concern that drives this exclusionary principal as one of pre-emption"). For this reason, questions on preemption are inherent in and resolved by the § 101 analysis. The concern is that "patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity." Id. (internal quotations omitted). In other words, patent claims should not prevent the use of the basic building blocks of technology—abstract ideas, naturally occurring phenomena, and natural laws. While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility. In this case, Sequenom's attempt to limit the breadth of the claims by showing alternative uses of cffDNA outside of the scope of the claims does not change the conclusion that the claims are directed to patent ineligible subject matter. Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.

Ariosa Diagnostics, Inc. v. Sequenom, Inc., 2015 U.S. App. LEXIS 9855, 17-18 (Fed. Cir. June 12, 2015).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Requirement to pay appeal forwarding fee. In order to avoid dismissal of the instant appeal in any application or ex parte reexamination proceeding, 37 CFR 41.45 requires payment of an appeal forwarding fee within the time permitted by 37 CFR 41.45(a), unless appellant had timely paid the fee for filing a brief required by 37 CFR 41.20(b) in effect on March 18, 2013.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Charles Fote	CONF. NO.:	6430
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TITLE:	BROKER-MEDIATED PAYMENT SYSTEMS AND METHODS		

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Alexandria, VA 22313-1450

REPLY BRIEF

This Reply Brief is submitted in accordance with 37 C.F.R. §§ 41.37 and 41.41 in reply to the Examiner's Answer mailed on October 28, 2016 (the "Answer"), which in turn responded to the Appeal Brief filed September 16, 2016 (the "Appeal Brief").

The Commissioner is hereby authorized to charge the appeal forwarding fee and any additional fees that may be due, or any other purpose associated with this submission, or credit any overpayment, to Appellants' undersigned counsel's Deposit Account No. 50-0310 with reference to docket number FOT-002C1.

STATUS OF CLAIMS

The application as filed contained claims 1-5. During prosecution, claims 6-8 were added, and claims 1, 2, 6, and 7 were canceled. Accordingly, pending claims 3-5 and 8 are the subject of this appeal.

GROUNDS OF REJECTION ADDRESSED HEREIN

This Reply Brief is submitted pursuant to 37 C.F.R. § 41.41 in response to the Answer. In particular, this brief addresses the following points:

- Legal developments since issuance of the Answer that favor patent-eligibility of the appealed claims;
- The contention that the claims recite nothing "non-conventional";[1] and
- The contention that the claims replace human activity with generic computer components. [2]

[1] Answer, p. 4.
[2] *Id.*

ARGUMENTS

I. Recent Legal Developments Further Favor Patentability of the Appealed Claims

After the Answer was filed, the Court of Appeals for the Federal Circuit issued its decision in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*[3] The *Amdocs* case involved "an accounting and billing problem faced by network service providers" and recited "generic components [that] operate in an unconventional manner to achieve an improvement in computer functionality."[4] In particular, the court focused on the distributed nature of the invention's operation, noting that "the network usage records are processed close to their sources before being transmitted to a centralized manager."[5]

The court determined that this feature "enables load distribution, and that is an advantage over the prior art because it makes it easier to keep up with record flows and allows for smaller databases."[6] The court further noted that "claim 1 solves a technological problem (massive data flows requiring huge databases) akin to the problem in *DDR Holding* (conventional Internet hyperlink protocol preventing website from retaining visitors)."[7] In addition, the court recognized that "claim 1 is also like the claims in *BASCOM*[8] because even though the system in the '065 patent relies upon some arguably generic limitations, when all limitations are considered individually and as an ordered combination, they provide an inventive concept through the use of distributed architecture."[9]

Analogously, the present claims solve a technical problem (vulnerability to disclosure or interception of transactional information due to accumulation of transactional data at each network "hop") in a technical fashion (by breaking the chain of transactional transmissions without undermining the validity of the electronic transaction itself). Hence, the Examiner's contention that "[t]he claims at issue do not require any nonconventional computer, network, or

[3] 120 USPQ2d 1527 (Fed. Cir. 2016), issued on November 1, 2016.
[4] 120 USPQ2d at 1537.
[5] 120 USPQ2d at 1536.
[6] 120 USPQ2d at 1539.
[7] 120 USPQ2d at 1537.
[8] Referring to BASCOM Global Internet Servs. v. AT&T Mobility, LLC, 827 F .3d 1341 (Fed. Cir. 2016).
[9] 120 USPQ2d at 1538.

other database components"[10] is equally true of the inventions in *DDR*,[11] *BASCOM* and *Amdocs* that were ruled to be patentable, and does not represent the test for eligibility under §101; many if not most inventions involve known building blocks. Every component recited in the *DDR*, *BASCOM* and *Amdocs* claims could be characterized as "off-the-shelf, conventional computer, network, and database technology."

More relevant to patentability is the Examiner's contention that the claims do not recite a "non-conventional and non-generic *arrangement* of known, conventional pieces,"[12] but here we respectfully submit that the Examiner is incorrect. The "arrangement" of components recited in the appealed claims is unconventional — just as in *DDR*, *BASCOM*, *Amdocs* and also Example 21 of the Office's July 2015 Update Appendix to its §101 examination guidelines — in its behavior to solve a technical, domain-specific problem. Indeed, the claims recite an arrangement sufficiently unconventional to be patentable over prior art cited by the Examiner and concerned with similar problems in the same domain. The behavior and operations utilized in the appealed claims to prevent information leakage while maintaining electronic transactional reliability represent precisely the kind of subject matter deemed patent-eligible in *Amdocs*, *DDR*, *BASCOM* and the examination guidelines.

II. The Claims Do Not Merely Introduce An Intermediary

In analyzing the appealed claims under *DDR*, the Examiner characterizes them as introducing "an intermediary in the chain of traditional EFT," and contends that "[t]his claimed solution is not necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks."[13] But the claims do not recite a simple intermediary. Indeed, if they did so, they would be unpatentably obvious over, *inter alia*, the art cited during prosecution — and over which they were found to patentably distinguish.

We respectfully submit that the Examiner's attempt to characterize the claims as merely automating "activities that can be carried out by humans" contradicts his recognition that they

[10] Answer, p. 4.
[11] DDR Holdings, LLC v. Hotels.com, LP, 113 USPQ2d 1097 (Fed. Cir. 2014).
[12] Answer, p. 4 (emphasis added).
[13] Answer, p. 5.

are patentably distinct under §§102 and 103. Certainly it is possible to introduce an intermediary between payer and payee in order to anonymize a transaction — or at least it was in the days before electronic financial transactions. Today, however, the mere involvement of an intermediary is insufficient to solve the problem addressed by the present invention, i.e., it would not prevent sensitive information, accumulating as an electronic payment transaction is processed over telecommunication networks, from being obtained by the payee or through subterfuge and misused. Indeed, what the appealed claims recite is not "mere automation," but a solution to the problem that "mere automation" creates. Using an intermediary between a payer and a payee has been done. Replacing the intermediary with a computer has been done.[14] The result of this automation is the very security hole that the appealed claims plug by limiting the role of the intermediary and restructuring the operations by which the electronic payments are made.

Rather than simply forwarding the payment to the payee, as in the prior art's "mere automation" of conventional practice, the intermediary (i.e., the recited payment brokerage server) instead instructs a server of the payer's designated funding source to make the payment to the payee on the funding source's behalf *by itself instructing a third party other than the payment broker or the funding source* to make the electronic payment to the payee from an account and financial institution associated with the third party and in the third party's name "such that the identities of the payer-selected funding source and the at least one payer-selected real account of the payer at the funding source are not divulged to the payee and such real-account identifying information is not transmitted to, received or stored by the payee's depository bank or other financial institution." The payment broker then instructs the server of the payer-selected funding source "to reimburse or transfer the amount of the payment to the third party from the at least one payer-selected real account of the payer at the funding source." These operations prevent the payee or "hackers" from gaining access to the payer's sensitive account information as a result of the information flow necessary to produce a valid electronic payment transaction.

[14] *See, e.g.,* U.S. Patent Publ. No. 2009/0070263, cited during prosecution.

III. It is Highly Relevant That the Claims Do Not Pre-Empt Other Solutions

The Examiner appears to accept Appellant's contention that the claims do not pre-empt other solutions to non-divulgation of sensitive information and transactional security, but suggests that this is insignificant. The Examiner quotes *Ariosa Diagnostics. Inc. v. Sequenom, Inc.* as noting that the absence of pre-emption does not, in itself, guarantee patent-eligible subject matter. But the *Ariosa* court did not suggest that pre-emption is unimportant or should be ignored, and indeed, the Federal Circuit recently clarified that "while pre-emption is not the test for determining patent-eligibility, *Ariosa*, 788 F.3d at 1378-79, it is certainly the "concern that undergirds … § 101 jurisprudence[.]"[15] The absence of pre-emption is relied upon in every eligibility-favoring decision. Certainly there may be cases where claims are so abstract that even pre-emption considerations cannot save them, but this is not such a case. The present claims recite intercommunicating hardware components that behave in a specific, ordered way to solve a technical problem using a technical solution. When considered in light of their distinctiveness over the prior art, the fact that they also do not pre-empt other solutions strongly favors a determination of patent-eligibility.

CONCLUSION

In view of the arguments above, and those articulated in the Appeal Brief, Appellants respectfully submit that claims 3-5 and 8 are patentable and urge the Patent Trial and Appeal Board to reverse all of the Examiner's rejections as to each of these claims.

Respectfully submitted,

Date: December 15, 2016

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[15] Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc., 119 USPQ2d 1370, 1376 (Fed. Cir. 2016).

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

***Ex parte* Charles T. Fote**

Appeal 2017-003210
Application 14/455,526
Technology Center 3600

APPELLANT'S NOTICE OF APPEAL
37 C.F.R. § 90.2(a)

PROOF OF SERVICE

I hereby certify that on March 18, 2019, I electronically transmitted this Joint Appendix to the Clerk of the Court using the Court's ECF system. I further certify that all counsel of record for Appellee are being served with a copy of this Joint Appendix by electronic means via the Court's ECF system as follows:

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