

(51) International Patent Classification:
G06Q 40/00 (2006.01)(21) International Application Number:
PCT/US2010/056787(22) International Filing Date:
16 November 2010 (16.11.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/619,114 16 November 2009 (16.11.2009) US(71) Applicant (for all designated States except US): **BANK OF AMERICA CORPORATION** [US/US]; 101 South Tryon Street, Mailcode: NC1-002-29-01, Charlotte, NC (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **VOTAW, Elizabeth, S.** [US/US]; 9423 Fox Hollow Drive, Potomac, MD 20854 (US). **ATIENZA, Orlando, O.** [PH/US]; 8215 Brookings Drive, Charlotte, NC 08269 (US). **WALKER, Robert, B.** [US/US]; 10008 Chimney Drive, Waxhaw, NC 28173 (US). **MAZGELIS, Clement, M.** [US/US]; 9 Fiano Road, Bolton, CT 06043 (US). **JENKINS, Jim, L.** [US/US]; 251 Treetops Drive, Stanley, NC 28164 (US).(74) Agent: **BROWN-SANFORD, Christa**; Baker Botts, LLP, 2001 Ross Avenue, Suite 600, Dallas, TX 75201 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

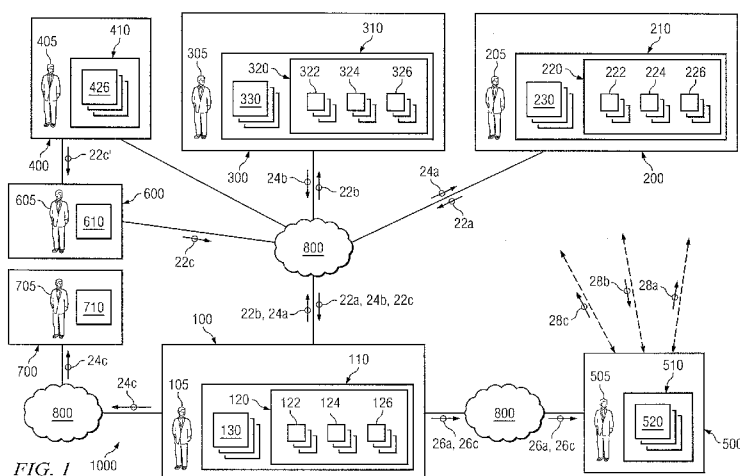
Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))

(54) Title: PROCESSING PAYMENT TRANSACTIONS BETWEEN ENTERPRISE RESOURCE PLANNING SYSTEMS



(57) Abstract: In some embodiments, a method for processing a payment transaction comprises receiving, by a payor an invoice generated from a first enterprise resource planning (ERP) system operated by a payee. The first ERP system formatted the invoice in a first format. The invoice is stored in a second format compatible with a second ERP system. The invoice has been converted from the first format to the second format, which is different from the first format. Approval of the invoice is received through the second ERP system. Authorization instructing a financial institution to transmit a payment to the payee is generated and transmitted to the financial institution. Confirmation of the payment to the payee is generated and transmitted to the payee.

PROCESSING PAYMENT TRANSACTIONS BETWEEN ENTERPRISE RESOURCE PLANNING SYSTEMS

TECHNICAL FIELD

The present disclosure relates generally to transaction processing and more specifically to a system
5 and method for processing payment transactions between enterprise resource planning systems.

BACKGROUND

An enterprise resource planning (ERP) system
10 includes a software package configured to manage information and/or functions of a commercial enterprise. Some ERP systems include multiple software modules. ERP modules may access one or more databases that store ERP data for the various software modules. There are
15 numerous ERP systems available in a variety of formats and configurations from a variety of providers, and the different ERP systems may be incompatible.

SUMMARY

20 In accordance with the present disclosure, the disadvantages and problems associated with prior enterprise resource planning (ERP) systems have been substantially reduced or eliminated.

In some embodiments, a method for processing a
25 payment transaction comprises receiving, by a payor an invoice generated from a first ERP system operated by a payee. The first ERP system formatted the invoice in a first format. The invoice is stored in a second format compatible with a second ERP system. The invoice has
30 been converted from the first format to the second

format, which is different from the first format. Approval of the invoice is received through the second ERP system. Authorization instructing a financial institution to transmit a payment to the payee is
5 generated and transmitted to the financial institution. Confirmation of the payment to the payee is generated and transmitted to the payee.

In some embodiments, a method for processing a payment transaction comprises generating at a payee an
10 invoice using a first ERP system. The invoice is formatted in a first format compatible with the first ERP system. The invoice is transmitted to the payor. Confirmation of a payment from the payor is received. The payor generated the confirmation using a second ERP
15 system in a second format different from the first format. The confirmation is stored in the first format. The confirmation has been converted from the second format to the first format compatible with the first ERP system. The confirmation is posted to the first ERP
20 system.

In some embodiments, a method for processing a payment transaction comprises receiving by a payor an invoice. A payee generated the invoice by generating an electronic representation of a paper invoice. The
25 invoice is stored in a format compatible with an ERP system. The invoice has been converted from the electronic representation to a format compatible with the ERP system. The format is different from the electronic representation generated by the payee. Approval is
30 received through the ERP system. Authorization instructing a financial institution to transmit a payment to the payee is generated and transmitted to the financial institution. Confirmation of the payment to

the payee is generated and transmitted to a viewing platform accessible by the payee.

Certain embodiments of the invention may provide one or more technical advantages. A technical advantage of one embodiment may include the capability to process payment transactions between entities with different ERP systems. Another technical advantage of one embodiment may include the capability to integrate a payor's payment process and a payee's receiving process. Yet another technical advantage of one embodiment may include the capability to process payment transactions between entities with different ERP systems without issuing paper checks and invoices. Yet another technical advantage of one embodiment may include the capability to reduce processing time of a payment transaction between entities with different ERP systems.

Various embodiments of the invention may include none, some, or all of the above technical advantages. One or more other technical advantages may be readily apparent to one skilled in the art from the figures, descriptions, and claims included herein.

BRIEF DESCRIPTION OF THE DRAWINGS

For a more complete understanding of the present disclosure and its advantages, reference is now made to the following description taken in conjunction with the accompanying drawings, in which:

FIGURE 1 shows a payment transaction processing system according to one embodiment;

FIGURE 2 shows a computer system according to one embodiment;

FIGURE 3 shows a memory that includes a plugin for converting ERP data between formats using a plugin; and

FIGURE 4 shows a method for processing a payment transaction at a payor according to one embodiment;

FIGURE 5 shows a method for processing a payment transaction at a payee according to one embodiment; and

5 FIGURE 6 shows a method for processing a payment transaction between a payor with an ERP system and a payee without an ERP system according to one embodiment.

DETAILED DESCRIPTION

10 It should be understood at the outset that, although example implementations of embodiments of the invention are illustrated below, the present invention may be implemented using any number of techniques, whether currently known or not. The present invention should in
15 no way be limited to the example implementations, drawings, and techniques illustrated below. Additionally, the drawings are not necessarily drawn to scale.

 An enterprise resource planning (ERP) system may include any software package configured to manage
20 information and/or functions of a commercial enterprise. Some ERP systems include multiple software modules. Example software modules may include, but are not limited to, product lifecycle management, supply chain management (e.g., purchasing, manufacturing, and distribution),
25 warehouse management, project management, customer relationship management (e.g., sales and marketing, commissions, service, customer contact, call center support), sales order processing, online sales, financials (e.g., costing, billing, time and expense,
30 performance units, activity management), human resources (e.g., payroll, training, time and attendance, rostering, benefits), and decision support systems.

ERP modules may access one or more databases that store ERP data for the various software modules. Example ERP data may generally include, but is not limited to: human resources master data (e.g., employee-related data
5 from a human resources module, such as employee ID, first name, last name, email, position, skills, and rate); customer data (e.g., customer-related data, such as customer ID, name, country, city, state, street, and email); employee assignment data (e.g., assignment of
10 employees to specific events or tasks, and including employee ID, start date, and finish date); capability master data (e.g., capabilities that are needed to perform tasks; may be used to identify areas for partnership and includes capability ID, capability name,
15 description, capability category, category name, and category description); vendor data by capability (e.g., information about vendors and partners and the capability provided by them; includes vendor ID, name, capability ID, and capability name); skills data by employee (e.g.,
20 skill data stored for each employee; may be used to assign employees according to requirements and their skill and includes skills ID, skills name, and employee ID); position data by skills (e.g., positions defined by a human resources system, and includes position ID,
25 description, skills, and rate); material master data (e.g., material-related information, including material number, description, unit of measure, and unit price); and/or any other suitable data.

ERP systems are available in a variety of formats
30 and configurations from a variety of providers. Example ERP system providers may include, but are not limited to, Oracle, SAP, and Microsoft. ERP systems may also include

custom implementations, which may include integration of multiple software products.

In one example, an organization implements an ERP system that includes modules for purchasing, sales, accounts payable, and accounts receivable. The ERP system may be configured to provide interoperability between the different modules. For example, if the organization completes a purchase from the vendor, the ERP system may register the purchase with the purchasing and accounts payable modules. When the vendor submits an invoice to the organization for payment, the ERP system may notify the purchasing module and generate a check. Some ERP systems may automate this procedure, whereas other ERP systems may request input and/or authorization from a human user.

A check may include any negotiable instrument instructing a financial institution to pay a specific amount of a specific currency from a specified demand account held in the maker/depositor's name with that financial institution. A financial institution may include any organization that engages in banking activities such as maintaining accounts (e.g., transaction accounts, or savings accounts), paying checks drawn by customers of the financial institution, and collecting checks deposited to customers' accounts.

In a second example, the organization sells product to a vendee. In this example, the ERP system may register the sale with the sales and accounts receivable modules. When the vendee submits payment to the organization, the ERP system notifies the sales and account receivables module. Some ERP systems may automate this procedure, whereas other ERP systems may request input and/or authorization from a human user.

In both of these examples, the organization and vendor/vendee exchange paper invoices and checks. However, processing payment transactions using paper invoices and checks is inefficient. ERP systems may
5 require that paper transactions be manually entered, which may be time-consuming and prone to errors. Additionally, the organization must wait for the financial institution to process the paper checks before receiving actual payment.

10 In an effort to move away from a paper process, some financial institutions may convert the paper checks into an electronic format and process the checks electronically. However, these internal electronic processing systems may not be compatible with the
15 organization's ERP system. Additionally, financial institutions may offer customers electronic bill payment features, such as through a web interface. Financial institutions may also communicate electronic money transfers using electronic funds transfers (EFTs),
20 automated clearing house (ACH) transactions, or any other suitable procedure. However, electronic bill payment systems, EFTs, and ACH transactions may still require redundant work for the organization; data from the organization's ERP system must be manually entered into
25 an interface or form accepted by the financial institution, such as part of the financial institution's web interface, because the ERP system cannot communicate directly with the financial institution.

Furthermore, ERP systems may be implemented in a
30 variety of formats, and two different ERP systems may not be necessarily compatible. For example, ERP systems from Oracle and SAP may use different data formats, and Oracle ERP systems may not be configured to communicate with SAP

ERP systems. Thus, if the organization and vendor use different ERP systems, then the vendor may not be able to transmit the invoice electronically to the organization in a format compatible with the organization's ERP system. Similarly, the organization may not be able to transmit electronic payment using the ERP system if the ERP system is not compatible with systems used by the financial institution and the vendor.

Accordingly, teachings of certain embodiments recognize the ability to process payment transactions between entities with different ERP systems. FIGURE 1 shows a payment transaction processing system 1000 according to one embodiment. In operation, system 1000 processes payment transactions between client 100 and transaction parties 200, 300, and 400. System 1000 may include more, fewer, or other clients and transaction parties that operate in any suitable capacity, such as a supplier, a customer, a vendor, a vendee, a payor, or a payee. As one example, teachings of certain embodiments recognize that client 100 may be both a supplier and customer with different transaction parties. System 1000 may also comprise one or more financial institutions 500, an invoice processing center 600, and a viewing platform 700, communicatively coupled by one or more networks 800.

In the illustrated embodiment, client 100 comprises a user 105 and a client system 110. One example of client system 110 may include computer 10 of FIGURE 2. User 105 may include any individual, group of individuals, entity, machine, and/or mechanism that interacts with system 110. Examples of user 105 may include, but are not limited to, an executive, manager, accountant, engineer, technician, contractor, agent, employee, and/or any suitable representative of client

100. User 105 may also include non-representatives of client 100, such as customers and agents.

In certain embodiments, client system 110 includes one or more client ERP systems 120 and one or more
5 plugins 130. ERP system 120 may access ERP data; example ERP data may include, but is not limited to, invoices 122, confirmations 124, and other company data 126. Invoices 122 may include any invoices generated by or received by client 100. Example invoices 122 may include
10 representations of commercial documents indicating products and/or services, quantities of products and/or services, agreed prices for products and/or services, inspection records, packing lists, purchase orders, and payment terms for the agreed prices. Confirmations 124
15 may include any confirmations generated by or received by client 100. Example confirmations may include confirmations of payment of invoices, such as invoices 122 or other invoices. Other company data 126 may include any other ERP data accessed by ERP system 120,
20 such as human resource data, customer data, employee assignment data, capability data, vendor data by capability, skills data by employee, position data by skills, material data, and/or any other suitable data.

Plugins 130 may include any logic that enables
25 communication or translation between ERP system 120 and other ERP systems or other systems. Teachings of certain embodiments recognize the capability of plugins 130 to enable communication between ERP system 120 and a second ERP system of a different format. Such communication may
30 include, but is not limited to, exchanges of payment information, invoices, inspections, purchase orders, and packing list data. Teachings of certain embodiments also recognize the capability of plugins 130 to enable ERP

system 120 to process, receive, and transmit payments to and from a bank's payment processing system. Example embodiments of plugins 130 may include the embodiments described below with regard to FIGURE 3.

5 In the illustrated embodiment, first transaction party 200 may include a user 205 and a first transaction party system 210. One example of first transaction party system 210 includes the computer 10 of FIGURE 2. User 205 may include any individual, group of individuals,
10 entity, machine, and/or mechanism that interacts with first transaction party system 210. Examples of user 205 may include, but are not limited to, an executive, manager, accountant, engineer, technician, contractor, agent, employee, and/or any suitable representative of
15 first transaction party 200. User 205 may also include non-representatives of first transaction party 200, such as customers and agents.

 In certain embodiments, first transaction party system 210 may include one or more ERP systems 220 and
20 one or more plugins 230. ERP system 220 may access ERP data; example ERP data may include, but is not limited to, invoices 212, confirmations 224, and other company data 226. Invoices 212 may include any invoices generated by or received by first transaction party 200.
25 Example invoices 212 may include representations of commercial documents indicating products and/or services, quantities of products and/or services, agreed prices for products and/or services, inspection records, packing lists, purchase orders, and payment terms for the agreed
30 prices. Confirmations 224 may include any confirmations generated by or received by first transaction party 200. Example confirmations may include confirmations of payment of invoices, such as invoices 212 or other

invoices. Other company data 226 may include any other ERP data accessed by ERP system 220, such as human resource data, customer data, employee assignment data, capability data, vendor data by capability, skills data
5 by employee, position data by skills, material data, and/or any other suitable data.

Plugins 230 may include any logic that enables communication or translation between ERP system 220 and other ERP systems or other systems. Teachings of certain
10 embodiments recognize the capability of plugins 230 to enable communication between ERP system 220 and a second ERP system of a different format. Such communication may include, but is not limited to, exchanges of payment information, invoices, inspections, purchase orders, and
15 packing list data. Teachings of certain embodiments also recognize the capability of plugins 230 to enable ERP system 220 to process, receive, and transmit payments to and from a bank's payment processing system. Example embodiments of plugins 230 may include the embodiments
20 described below with regard to FIGURE 3.

In the illustrated embodiment, second transaction party 300 may include a user 305 and a second transaction party system 310. One example of second transaction party system 310 includes the computer 10 of FIGURE 2.
25 User 305 may include any individual, group of individuals, entity, machine, and/or mechanism that interacts with second transaction party system 310. Examples of user 305 may include, but are not limited to, an executive, manager, accountant, engineer, technician,
30 contractor, agent, employee, and/or any suitable representative of second transaction party 300. User 305 may also include non-representatives of second transaction party 300, such as customers and agents.

In certain embodiments, second transaction party system 310 includes one or more ERP systems 320 and one or more plugins 330. ERP system 320 may access ERP data; example ERP data may include, but is not limited to, invoices 322, confirmations 324, and other company data 326. Invoices 322 may include any invoices generated by or received by second transaction party 300. Example invoices 322 may include representations of commercial documents indicating products and/or services, quantities of products and/or services, agreed prices for products and/or services, inspection records, packing lists, purchase orders, and payment terms for the agreed prices. Confirmations 324 may include any confirmations generated by or received by second transaction party 300. Example confirmations may include confirmations of payment of invoices, such as invoices 322 or other invoices. Other company data 326 may include any other ERP data accessed by ERP system 320, such as human resource data, customer data, employee assignment data, capability data, vendor data by capability, skills data by employee, position data by skills, material data, and/or any other suitable data.

Plugins 330 may include any logic that enables communication or translation between ERP system 320 and other ERP systems or other systems. Teachings of certain embodiments recognize the capability of plugins 330 to enable communication between ERP system 320 and a second ERP system of a different format. Such communication may include, but is not limited to, exchanges of payment information, invoices, inspections, purchase orders, and packing list data. Teachings of certain embodiments also recognize the capability of plugins 330 to enable ERP system 320 to process, receive, and transmit payments to

and from a bank's payment processing system. Example embodiments of plugins 330 may include the embodiments described below with regard to FIGURE 3.

In the illustrated embodiment, third transaction party 400 may include a user 405 and a third transaction party system 410. One example of third transaction party system 410 includes the computer 10 of FIGURE 2. User 405 may include any individual, group of individuals, entity, machine, and/or mechanism that interacts with third transaction party system 410. Examples of user 405 may include, but are not limited to, an executive, manager, accountant, engineer, technician, contractor, agent, employee, and/or any suitable representative of third transaction party 400. User 405 may also include non-representatives of third transaction party 400, such as customers and agents.

As mentioned above, in the illustrated embodiment, third transaction party 400 includes a third transaction party system 410. However, in other embodiments, third transaction party 400 may not include a third transaction party system 410. For example, in some embodiments, user 405 may be a human user that performs business activities without the assistance of third transaction party system 410. For example, user 405 may generate handwritten invoices without using third transaction party system 410.

In the illustrated embodiment, third transaction party system 410 includes other systems for managing third transaction party data 426. For example, in some embodiments, user 405 interacts with third transaction system 410 to generate or process invoices without using an ERP system. As another example, user 405 conducts

business activities without the assistance of third transaction system 410.

In some embodiments, financial institution 500 may include a user 505 and a financial institution system 510. One example of financial institution system 510 includes computer 10 of FIGURE 2. User 505 may include any individual, group of individuals, entity, machine, and/or mechanism that interacts with financial institution system 510. Examples of user 505 may include, but are not limited to, a banker, teller, executive, manager, accountant, technician, contractor, agent, employee, and/or any suitable representative of financial institution 500. User 505 may also include non-representatives of financial institution 500, such as customers and agents.

In the example embodiment, financial institution system 510 includes account profile data 520. Account profile data 520 may include any suitable data regarding an account, including, but not limited to, account number, account balance, transaction history, and transaction status. For example, if a customer of financial institution system 510 issues a check from customer's account, account profile data 520 may identify the check, the status of the check (e.g., pending, posted, etc.), and the recipient of the check.

In the illustrated embodiment, client 100 has a preexisting relationship with financial institution 500. However, teachings of certain embodiments recognize that system 1000 may also include multiple financial institutions 500 or different financial institutions. For example, transaction parties 200, 300, and/or 400 have relationships with different financial institutions. In other embodiments, one or more of client 100 and

transaction parties 200, 300, and 400 have relationships with the same financial institution, such as financial institution 500.

In some embodiments, invoice processing center 600 includes a user 605 and/or an invoice processing system 610. User 605 may include any person or entity suitable to perform operations of invoice processing center 600. One example of invoice processing system 610 includes computer 10 of FIGURE 2.

10 In operation, invoice processing center 600 manages incoming invoices. In some embodiments, invoice processing center 600 manages incoming invoices from arrival to post. For example, the invoice processing center 600 receives the invoice, classifies the invoice
15 into various categories, and forwards the invoice to the responsible person for that particular invoice.

Invoice processing center 600 may be affiliated with a variety of parties. For example, client 100, transaction parties 200, 300, and 400, and/or financial
20 institution 500 may operate invoice processing center 600. A third-party operator also may operate invoice processing center 600.

In some embodiments, user 605 performs one or more operations of the invoice processing center 600. Also,
25 in some embodiments, invoice processing system 610 may automate one or more operations of the invoice processing center 600. For example, invoice processing system 610 may be operable to record invoice data in an electronic format. In other embodiments, invoice processing system
30 610 may provide an interface, such as through a website, that allows a party to upload invoice data into an electronic format.

In some embodiments, viewing platform 700 may include a user 705 and/or a viewing system 710. Viewing platform 700 may display payment confirmations to non-ERP systems. User 705 may include any person or entity
5 suitable to perform operations of the viewing platform 700. One example of viewing system 710 includes computer 10 of FIGURE 2.

Viewing platform 700 may be affiliated with a variety of parties. For example, client 100, transaction
10 parties 200, 300, and 400, and/or financial institution 500 may operate viewing platform 700. A third-party operator also may operate viewing platform 700.

In some embodiments, user 705 performs one or more operations of the viewing platform 700. For example, in
15 one embodiment, viewing platform 700 may generate and/or transmit a paper payment confirmation. Also, in some embodiments, confirmation viewing system 710 may automate one or more operations of the viewing platform 700. For example, in operation, confirmation viewing system 710
20 may be operable to generate and/or transmit an email copy of a confirmation. In other embodiments, confirmation viewing system 710 may provide an interface, such as through a website, that allows a party to view payment confirmations in an electronic format.

25 In some embodiments, network 800 may represent any number and combination of wireline and/or wireless networks suitable for data transmission. Network 800 may, for example, communicate internet protocol packets, frame relay frames, asynchronous transfer mode cells,
30 and/or other suitable information between network addresses. Network 800 may include a public or private data network; one or more intranets; a local area network (LAN); a metropolitan area network (MAN); a wide area

network (WAN); a wireline or wireless network; a local, regional, or global communication network; an optical network; a satellite network; a cellular network; an enterprise intranet; all or a portion of the Internet;
5 other suitable communication links; or any combination of the preceding.

System 1000 may include one or more networks 800. For example, FIGURE 1 shows three networks 800. However, teachings of certain embodiments recognize that more or
10 fewer networks 800 may be used. Further, teachings of certain embodiments also recognize that communications over network 800 is one example of a mechanism for communicating between parties, and any suitable mechanism may be used.

15 In operation, system 1000 may be operable to process transactions between two or more parties. In an exemplary embodiment of operation, client 100 and first transaction party 200 engage in a business transaction. First transaction party 200 generates an invoice 22a
20 using ERP system 220. In some embodiments, ERP system 220 formats invoice 22a in a proprietary format. An example of a proprietary format may include a data format specific to a particular ERP vendor, such as Oracle, SAP, or Microsoft.

25 First transaction party 200 submits invoice 22a to client 100 for payment. For example, in one embodiment, first transaction party 200 communicates invoice 22a to client 100 over network 800. In some embodiments, ERP system 120 receives invoice 22a, and information from
30 invoice 22a updates data associated with ERP system 120, such as accounting or department data. If client 100 uses a different ERP system 120 that does not accept the proprietary format of ERP system 220, teachings of

certain embodiments recognize the ability to translate or convert invoice 22a into a format accepted by ERP system 120.

In some embodiments, plugins 130 and/or 230 convert invoice 22a. In some embodiments, plugin 230 converts invoice 22a before first transaction party 200 transmits invoice 22a across network 800 to client 100. In other embodiments, first transaction party 200 transmits invoice 22a to client 100 without conversion; upon receipt, client 100 converts invoice 22a using plugin 130. In some embodiments, plugin 230 converts invoice 22a into an intermediate format, and plugin 130 converts the invoice from the intermediate format into a format acceptable by ERP system 120. The intermediate format may represent a standardized data format readable by multiple clients, transaction parties, financial institutions, ERP systems, and/or plugins coupled to ERP systems.

Upon receipt of invoice 22a, client 100 may use ERP system 120 to approve invoice 22a for payment. For example, invoice 22a may be approved upon input from user 105, or invoice 22a may be approved by using an automated process of client system 110 and/or ERP system 120.

Client 100 may transmit authorization 26a to financial institution 500. Authorization 26a may include authorization to transmit a payment amount 28a from client 100 to first transaction party 200. For example, in one embodiment, client 100 may have an account with financial institution 500; in this example, client 100 authorizes financial institution 500 to deduct a payment amount from the account and transmit payment amount 28a to the first transaction party 200. In some embodiments, authorization 26a may include instructions for financial

institution 500 to transmit payment amount 28a to an account designated by first transaction party 200. For example, financial institution 500 may execute an EFT or ACH transaction with a second financial institution that
5 maintains a designated account of first transaction party 200. If client 100 and first transaction party 200 both maintain accounts with financial institution 500, then financial institution 500 may debit an account of client 100 and credit an account of first transaction party 200
10 using any suitable internal or external procedure.

In some embodiments, authorization 26a may be generated using ERP system 120. For example, authorization 26a may be generated upon input from user 105, or authorization 26a may be generated by using an
15 automated process of client system 110 and/or ERP system 120. In one example embodiment, ERP system 120 automatically generates and transmits authorization 26a upon approval of invoice 22a.

In some embodiments, client 100 generates a
20 confirmation 24a using ERP system 120. In one example embodiment, confirmation 24a confirms payment of invoice 22a, such as by identifying invoice 22a and payment amount 26a to first transaction party 200. In some embodiments, ERP system 120 formats the confirmation 24a
25 in a proprietary format. An example of a proprietary format may include a data format specific to a particular ERP vendor, such as Oracle, SAP, or Microsoft.

In some embodiments, client 100 may transmit confirmation 24a to financial institution 500. For
30 example, in one embodiment, client 100 communicates confirmation 24a to first transaction party 200 over network 800. In some embodiments, ERP system 220 may receive confirmation 24a, and information from

confirmation 24a updates data associated with ERP system 220, such as accounting or department data. If client 100 uses a different ERP system 120 that does not accept the proprietary format of ERP system 220, then teachings
5 of certain embodiments recognize the ability to translate or convert confirmation 24a into a format accepted by ERP system 220.

In some embodiments, plugins 130 and/or 230 convert confirmation 24a. In some embodiments, plugin 130
10 converts confirmation 24a before client 100 transmits confirmation 24a across network 800 to first transaction party 200. In other embodiments, client 100 transmits confirmation 24a to first transaction party 200 without conversion; upon receipt, first transaction party 200
15 converts confirmation 24a using plugin 230. In some embodiments, plugin 130 converts confirmation 24a into an intermediate format, and plugin 230 converts confirmation 24a from the intermediate format into a format acceptable by ERP system 220. The intermediate format may represent
20 a standardized data format readable by multiple clients, transaction parties, financial institutions, ERP systems, and/or plugins coupled to ERP systems.

In another exemplary embodiment, client 100 and second transaction party 300 engage in a business
25 transaction. Client 100 generates an invoice 22b using ERP system 120. In some embodiments, ERP system 120 formats the invoice 22b in a proprietary format. An example of a proprietary format may include a data format specific to a particular ERP vendor, such as Oracle, SAP,
30 or Microsoft.

Client 100 submits invoice 22b to second transaction party 300 for payment. For example, in one embodiment, client 100 communicates invoice 22b to second transaction

party 300 over network 800. In some embodiments, ERP system 320 receives invoice 22b, and information from invoice 22b updates data associated with ERP system 320, such as accounting or department data. If second
5 transaction party 300 uses a different ERP system 320 that does not accept the proprietary format of ERP system 120, teachings of certain embodiments recognize the ability to translate or convert invoice 22b into a format accepted by ERP system 320.

10 In some embodiments, plugins 130 and/or 330 convert invoice 22b. In some embodiments, plugin 130 converts invoice 22b before client 100 transmits invoice 22b across network 800 to second transaction party 300. In other embodiments, client 100 transmits invoice 22b to
15 second transaction party 300 without conversion; upon receipt, second transaction party 300 converts invoice 22b using plugin 330. In some embodiments, plugin 130 converts invoice 22b into an intermediate format, and plugin 330 converts the invoice from the intermediate
20 format into a format acceptable by ERP system 320. The intermediate format may represent a standardized data format readable by multiple clients, transaction parties, financial institutions, ERP systems, and/or plugins coupled to ERP systems.

25 Upon receipt of invoice 22b, second transaction party 300 may use ERP system 320 to approve invoice 22b for payment. For example, invoice 22b may be approved upon input from user 105, or invoice 22b may be approved using an automated process of client system 110 and/or
30 ERP system 320.

Second transaction party 300 may submit a payment 28b to client 100. In one embodiment, second transaction party 300 transmits authorization 26b to a second

financial institution (not shown). Authorization 26b may include authorization to transmit a payment amount 28b from second transaction party 300 to client 100. For example, in one embodiment, second transaction party 300 may have an account with the second financial institution; in this example, second transaction party 300 authorizes the second financial institution to deduct a payment amount from the account and transmit payment amount 28b to the client 100. In some embodiments, authorization 26b to transmit a payment from second transaction party 300 to client 100 may include instructions for the second financial institution to transmit payment amount 28b to an account designated by client 100. For example, the second financial institution may execute an EFT or ACH transaction with a financial institution 500 that maintains a designated account of client 100. If client 100 and second transaction party 300 both maintain accounts with financial institution 500, then financial institution 500 may debit an account of second transaction party 300 and credit an account of client 100 using any suitable internal or external procedure.

In some embodiments, authorization 26b may be generated using ERP system 320. For example, authorization 26b may be generated upon input from user 105, or authorization 26b may be generated using an automated process of client system 110 and/or ERP system 320. In one example embodiment, ERP system 320 automatically generates and transmits authorization 26b upon approval of invoice 22b.

In some embodiments, second transaction party 300 generates a confirmation 24b using ERP system 320. In one example embodiment, confirmation 24b confirms payment

of invoice 22b, such as by identifying invoice 22b and payment amount 26b to client 100. In some embodiments, ERP system 320 formats confirmation 24b in a proprietary format. An example of a proprietary format may include a data format specific to a particular ERP vendor, such as Oracle, SAP, or Microsoft.

In some embodiments, second transaction party 300 transmits confirmation 24b to financial institution 200. For example, in one embodiment, second transaction party 300 communicates confirmation 24b to client 100 over network 800. In some embodiments, ERP system 120 receives confirmation 24b, and information from confirmation 24b updates data associated with ERP system 120, such as accounting or department data. If second transaction party 300 uses a different ERP system 320 that does not accept the proprietary format of ERP system 120, then teachings of certain embodiments recognize the ability to translate or convert the confirmation 24b into a format accepted by the ERP system 120.

In some embodiments, plugins 330 and/or 130 convert confirmation 24b. In some embodiments, plugin 330 converts confirmation 24b before second transaction party 300 transmits confirmation 24b across network 800 to client 100. In other embodiments, second transaction party 300 transmits confirmation 24b to client 100 without conversion; upon receipt, client 100 converts confirmation 24b using plugin 130. In some embodiments, plugin 330 converts confirmation 24b into an intermediate format, and plugin 130 converts confirmation 24b from the intermediate format into a format acceptable by ERP system 120. The intermediate format may represent a standardized data format readable by multiple transaction

parties, financial institutions, ERP systems, and/or plugins coupled to ERP systems.

In another exemplary embodiment, client 100 and third transaction party 300 engage in a business transaction. In this example, third transaction party 400 generates an invoice 22c' without an ERP system. For example, invoice 22c' may be a paper invoice or an electronic invoice generated using a non-ERP system.

Invoice processing center 600 may receive invoice 22c'; however, other examples may omit invoice processing center 600. Invoice processing center 600 may, for example, record data from invoice 22c' into an electronic format 22c. For example, invoice processing center 600 facilitates data entry from a paper invoice 22c' or provide an interface, such as a website, that allows a party to upload invoice data into an electronic format.

The electronic format may be any suitable format, such as a proprietary format. An example of a proprietary format may include a data format specific to a particular ERP vendor, such as Oracle, SAP, or Microsoft. In some examples, the electronic format may be an intermediate format. The intermediate format may represent a standardized data format readable by multiple clients, transaction parties, financial institutions, ERP systems, and/or plugins coupled to ERP systems.

Invoice processing center 600 transmits invoice 22c to client 100. For example, in one embodiment, invoice processing center 600 communicates invoice 22c to client 100 over network 800. In some embodiments, ERP system 120 receives invoice 22c, and information from invoice 22c updates data associated with ERP system 120, such as accounting or department data. If client 100 may use a different ERP system 120 that does not accept the

electronic format of the invoice processing center 600 then teachings of certain embodiments recognize the ability to translate or convert invoice 22c into a format accepted by ERP system 120. In some embodiments, plugin
5 130 converts invoice 22c into a format acceptable by ERP system 120.

Upon receipt of invoice 22c, client 100 may use ERP system 120 to approve invoice 22c for payment. For example, invoice 22c may be approved upon input from user
10 105, or invoice 22c may be approved by using an automated process of client system 110 and/or ERP system 120.

Client 100 may transmit authorization 26c to financial institution 500. Authorization 26c may include authorization to transmit a payment amount 28c from
15 client 100 to third transaction party 400. For example, in one embodiment, client 100 may have an account with financial institution 500; in this example, client 100 authorizes financial institution 500 to deduct a payment amount from the account and transmit payment amount 28c
20 to third transaction party 400. In some embodiments, authorization 26c to transmit a payment from client 100 to third transaction party 400 may include instructions for the financial institution 500 to transmit payment amount 28c to an account designated by third transaction
25 party 400. For example, financial institution 500 may execute an EFT or ACH transaction with a second financial institution that maintains a designated account of the third transaction party 400. If client 100 and third transaction party 400 both maintain accounts with
30 financial institution 500, then financial institution 500 may debit an account of client 100 and credit an account of third transaction party 400 using any suitable internal or external procedure.

In some embodiments, authorization 26c may be generated using ERP system 120. For example, authorization 26c may be generated upon input from user 105, or authorization 26c may be generated by using an automated process of client system 110 and/or ERP system 120. In one example embodiment, ERP system 120 automatically generates and transmits authorization 26c upon approval of invoice 22c.

In some embodiments, client 100 generates a confirmation 24c using ERP system 120. In one example embodiment, confirmation 24c confirms payment of the invoice 22c, such as by identifying invoice 22c and payment amount 26c to third transaction party 400. In some embodiments, ERP system 120 formats the confirmation 24c in a proprietary format. An example of a proprietary format may include a data format specific to a particular ERP vendor, such as Oracle, SAP, or Microsoft. In some embodiments, ERP system 120 formats confirmation 24c in an intermediate format or in any other format readable by a viewing platform 700. In embodiments in which confirmation 24c does not accept a proprietary format, plugin 130 or any other suitable mechanism convert confirmation 24c into a format acceptable by viewing platform 700.

In the example embodiment shown, client 100 transmits confirmation 24c to viewing platform 700. Viewing platform 700 may allow a party, such as the third transaction party 400, to view confirmation 24c. For example, in some embodiments, viewing platform 700 may generate a paper confirmation, an email confirmation, and/or a website page displaying data from confirmation 24c.

FIGURE 2 shows one embodiment of a computer system 10. Computer system 10 may include processors 12, input/output devices 14, communications links 16, and memory 18. In other embodiments, computer system 10 may include more, less, or other components.

Computer system 10 may be operable to perform one or more operations of various embodiments. Although the embodiment shown in FIGURE 2 provides one example of computer system 10 that may be used with other embodiments, such other embodiments may additionally utilize computers other than the computer system 10. Additionally, embodiments may also employ multiple computer systems 10 or other computers networked together in a computer network. Multiple computer systems 10 or other computers may be networked through the Internet and/or in a client-server network. Embodiments of the invention may also be used with a combination of separate computer networks each linked together by a private or a public network.

Several embodiments may include processors 12 operable to execute logic contained within a medium. Examples of processor 12 include one or more microprocessors, one or more applications, and/or other logic. Computer system 10 may include one or multiple processors 12.

Several embodiments may include one or more input/output devices. Input/output devices 14 may include any device or interface operable to enable communication between computer system 10 and external components, including communication with a user or another system. Example input/output devices 14 may include, but are not limited to, a mouse, keyboard, display, and printer.

Communications links 16 may be connected to any number and combination of wireline and/or wireless networks suitable for data transmission. Communications links 16 may, for example, communicate internet protocol
5 packets, frame relay frames, asynchronous transfer mode cells, and/or other suitable information between network addresses. Communications links 16 may be connected to a computer network or a variety of other communicative platforms including, but not limited to, a public or
10 private data network; one or more intranets; a local area network (LAN); a metropolitan area network (MAN); a wide area network (WAN); a wireline or wireless network; a local, regional, or global communication network; an optical network; a satellite network; a cellular network;
15 an enterprise intranet; all or a portion of the Internet; other suitable communication links; or any combination of the preceding. In one example embodiment, communications links 16 may be connected to one or more networks 800 of FIGURE 1.

20 Several embodiments may include logic contained within a medium. Logic may include hardware, software, and/or other logic. Logic may be encoded in one or more tangible media and may perform operations when executed by a computer. Logic may include a computer program,
25 software, computer executable instructions, and/or instructions capable of being executed by computer system 10. Example logic may include any of the well-known OS2, UNIX, Mac-OS, Linux, and Windows Operating Systems or other operating systems. In particular embodiments, the
30 operations of the embodiments may be performed by one or more computer readable media storing, embodied with, and/or encoded with a computer program and/or having a stored and/or an encoded computer program. The logic may

also be embedded within any other suitable medium without departing from the scope of the invention.

The logic may be stored on a medium such as the memory 18. Memory 18 may comprise one or more tangible, computer-readable, and/or computer-executable storage medium. Examples of memory 18 include computer memory (for example, Random Access Memory (RAM) or Read Only Memory (ROM)), mass storage media (for example, a hard disk), removable storage media (for example, a Compact Disk (CD) or a Digital Video Disk (DVD)), database and/or network storage (for example, a server), and/or other computer-readable medium.

For example, if system 10 represents client system 110, memory 18 may include ERP system 120, invoices 122, confirmations 124, other company data 126, and/or plugins 130. As another example, if system 10 represents first transaction party 210, memory 18 may include ERP system 220, invoices 222, confirmations 224, other company data 226, and/or plugins 230. As yet another example, if system 10 represents second transaction party system 310, memory 18 may include ERP system 320, invoices 322, confirmations 324, other company data 326, and/or plugins 330. As yet another example, if system 10 represents third transaction party system 410, memory 18 may include third transaction party data 426. As yet another example, if system 10 represents financial institution 500, memory 18 may include account profile data 520.

FIGURE 3 shows a memory 18 that includes a plugin 30 for converting ERP data between formats. However, teachings of certain embodiments recognize that any suitable mechanism for converting ERP data between formats may be used.

Plugin 30 includes an incoming ERP data set 32 and an outgoing ERP data set 34. In one example embodiment, ERP data sets 32 and 34 represent ERP data in different proprietary formats. An example of a proprietary format
5 may include a data format specific to a particular ERP vendor, such as Oracle, SAP, or Microsoft. In another example, either the ERP data set 32 or ERP data set 34 may be formatted in an intermediate format. The intermediate format may represent a standardized data
10 format readable by multiple clients, transaction parties, financial institutions, ERP systems, and/or plugins coupled to ERP systems.

Incoming ERP data 32 comprises a first set of data fields, illustrated as A1, A2, A3, A4, and A5. Outgoing
15 ERP data 34 comprises a second set of data fields, labeled as B1, B2, B3, B4, and B5. In this example, each data field represents a particular data value. For example, data field A1 represents a person's name, whereas data field B1 represents an invoice number.

20 Plugin 30 may convert the incoming ERP data 32 into the outgoing ERP data 34 by mapping each data field in the first set to the corresponding data field in the second set. For example, in the illustrated embodiment, data field A1, which includes a person's name, maps to
25 B2, which also includes a person's name. Using the same technique, data field A2 maps to data field B3, and data field A3 maps to data field B1.

In one embodiment, plugin 30 is preconfigured to recognize ERP data of a proprietary format. Referring to
30 FIGURE 1, in one embodiment, plugins 130 is preconfigured to recognize ERP data from ERP systems 220 and/or 320. In addition, plugins 130 may be preconfigured to recognize data in an intermediate format. For example,

in FIGURE 1, plugins 130, 230, and 330 may be configured to recognize data in an intermediate format. In one embodiment, plugins 130, 230, and 330 are standardized such that the plugins 130, 230, and 330 are configured to
5 convert data between a standardized intermediate format and ERP systems 120, 220, and 320, respectively. If, for example, ERP systems 120, 220, and 320 are different proprietary ERP systems, then teachings of certain embodiments recognize that using a standardized
10 intermediate format allows plugins 130 to recognize and read data transmitted from proprietary ERP systems 220 and 320 without being configured to recognize and read ERP data from ERP systems 220 and 320.

In some embodiments, plugin 30 recognizes data of a
15 proprietary format upon receiving and/or sending data. For example, in one embodiment, plugin 130 receives ERP data, identifies the ERP system format associated with the ERP data (e.g., format associated with ERP systems 220 and 320), and converts the ERP data into a format
20 recognizable by ERP system 120.

Returning to FIGURE 3, if incoming ERP data 32 is in a proprietary format, teachings of certain embodiments recognize the capability of plugin 30 to search and locate data fields within incoming ERP data 32. In one
25 embodiment, plugin 30 identifies the amount data field in incoming ERP data 32 by searching for data field A2. In one illustrative example, incoming ERP data 32 represents data fields A1-A5 separated by commas as follows:

A1,A2,A3,A4,A5

30 In this example, plugin 30 is configured to search incoming ERP data 32 for the name data field by locating the second data field separated by commas, represented by A2.

Teachings of certain embodiments recognize that mapping data fields may provide an efficient mechanism for translating between ERP systems. For example, many invoices from different ERP systems may include the
5 common data fields (e.g., name, amount, invoice number, quantity, etc.), and plugin 30 may map each of these common data fields.

In addition to mapping data fields, teachings of certain embodiments recognize the capability to map data
10 formats within a data field. For example, data field A1 represents a name as "last name, first name." A different ERP system, however, may represent a name as "first name last name," as shown in data field B2. Accordingly, teachings of certain embodiments recognize
15 the capability to reformat data fields from a first ERP system into a format compliant with a different second ERP system.

FIGURE 4 shows a method 2000 for processing a payment transaction at a payor according to one
20 embodiment. In this exemplary embodiment, client 100 represents the payor, and first transaction party 200 represents a payee.

At step 2100, client 100 receives invoice 22a generated from ERP system 220 operated by first
25 transaction party 200. Client 100 receives invoice 22a through a network interface, such as communication link 16. In one example, ERP system 220 formats invoice 22a in a format associated with ERP system 220.

At step 2200, client 100 stores invoice 22a with
30 invoices 122 in a memory, such as memory 18. In one example, client 100 stores invoice 22a in a format associated with ERP system 120. In this example, the invoice 22a is converted from the format associated with

ERP system 220 to the format associated with ERP system 120. In some embodiments, plugin 130 and/or plugin 230 may convert the invoice 22a from the format associated with ERP system 220 to the format associated with ERP system 120. In one example embodiment, plugin 230 may convert the invoice 22a from the format associated with ERP system 220 into an intermediate format, and plugin 130 may convert invoice 22a from the intermediate format into the format associated with ERP system 120.

10 In one example embodiment, converting the format of invoice 22a includes identifying one or more data fields in the format associated with ERP system 220, identifying one or more corresponding data fields in the format associated with ERP system 120, and mapping the one or more data fields in the format associated with ERP system 220 to the corresponding data fields in the format associated with ERP system 120. Similar mapping may occur with the intermediate format or any other suitable format.

20 At step 2300, ERP system 120 receives approval of the invoice. At step 2400, client 100 generates authorization 26a. Authorization 26a authorizes financial institution 500 to transmit payment amount 26a to first transaction party 200. At step 2500, client 100 transmits authorization 26a to financial institution 500. At step 2600, client 100 generates confirmation 24a. Confirmation 24a confirms transmission of authorization 26a and/or payment amount 28a. At step 2700, client 100 transmits confirmation 24a to first transaction party 200.

30 FIGURE 5 shows a method 3000 for processing a payment transaction at a payee according to one embodiment. In this exemplary embodiment, client 100

represents the payee, and second transaction party 200 represents a payor.

At step 3100, client 100 generates invoice 22b using ERP system 120. In one example, ERP system 120 formats
5 invoice 22b in a format associated with ERP system 120. At step 3200, client 100 transmits invoice 22b to second transaction party 300 through a network interface, such as communication link 16.

At step 3300, client 100 receives confirmation 24b
10 that second transaction party 300 has transmitted payment amount 28b to financial institution 500. In one example, the second transaction party 300 formatted confirmation 24b in a format associated with ERP system 320.

At step 3400, client 100 stores confirmation 24b
15 with confirmations 124 in a memory, such as memory 18. In one example, client 100 stores confirmation 24b in a format associated with ERP system 120. In this example, confirmation 24b is converted from the format associated with ERP system 320 to the format associated with ERP
20 system 120. In some embodiments, plugin 130 and/or plugin 330 may convert confirmation 24b from the format associated with ERP system 320 to the format associated with ERP system 120. In one example embodiment, plugin 230 may convert confirmation 24b from the format
25 associated with ERP system 320 into an intermediate format, and plugin 130 may convert confirmation 24b from the intermediate format into the format associated with ERP system 120.

In one example embodiment, converting the format of
30 confirmation 24b includes identifying one or more data fields in the format associated with ERP system 320, identifying one or more corresponding data fields in the format associated with ERP system 120, and mapping the

one or more data fields in the format associated with ERP system 320 to the corresponding data fields in the format associated with ERP system 120. Similar mapping may occur with the intermediate format or any other suitable
5 format.

At step 3500, confirmation 24b is posted to ERP system 120.

FIGURE 6 shows a method 4000 for processing a payment transaction between a payor with an ERP system and a payee without an ERP system according to one
10 embodiment. In this exemplary embodiment, client 100 represents the payor, and third transaction party 400 represents the payee.

At step 4100, client 100 receives invoice 22c. In
15 this example, invoice 22c is an electronic representation of a paper invoice. Client 100 receives invoice 22c through a network interface, such as communication link 16.

At step 4200, client 100 stores invoice 22c with
20 invoices 122 in a memory, such as memory 18. In one example, client 100 stores invoice 22c in a format associated with ERP system 120. In this example, the invoice 22c is converted from the electronic representation to the format associated with ERP system
25 120. In some embodiments, plugin 130, third transaction party 400, and/or invoice processing center 600 may convert the invoice 22c from the electronic representation to the format associated with ERP system 120. In one example embodiment, third transaction party
30 400 and/or invoice processing center 600 may convert the invoice 22c from the electronic representation into an intermediate format, and plugin 130 may convert invoice

22c from the intermediate format into the format associated with ERP system 120.

At step 4300, ERP system 120 receives approval of the invoice. At step 4400, client 100 generates
5 authorization 26c. Authorization 26c authorizes financial institution 500 to transmit payment amount 26c to third transaction party 400. At step 4500, client 100 transmits authorization 26c to financial institution 500. At step 4600, client 100 generates confirmation 24c.
10 Confirmation 24c confirms transmission of authorization 26c and/or payment amount 28c.

At step 4700, client 100 transmits confirmation 24c to viewing platform 700. In one example embodiment, viewing platform 700 includes an electronic mail message
15 transmitted to the third transaction party 400. In another example embodiment, viewing platform 700 includes a website accessible by the third transaction party 400.

Modifications, additions, or omissions may be made to the systems and apparatuses described herein without
20 departing from the scope of the invention. The components of the systems and apparatuses may be integrated or separated. Moreover, the operations of the systems and apparatuses may be performed by more, fewer, or other components. The methods may include more,
25 fewer, or other steps. Additionally, steps may be performed in any suitable order. Additionally, operations of the systems and apparatuses may be performed using any suitable logic. As used in this document, "each" refers to each member of a set or each
30 member of a subset of a set.

Although several embodiments have been illustrated and described in detail, it will be recognized that substitutions and alterations are possible without

departing from the spirit and scope of the present invention, as defined by the appended claims.

To aid the Patent Office, and any readers of any patent issued on this application in interpreting the
5 claims appended hereto, applicants wish to note that they do not intend any of the appended claims to invoke paragraph 6 of 35 U.S.C. § 112 as it exists on the date of filing hereof unless the words "means for" or "step for" are explicitly used in the particular claim.

WHAT IS CLAIMED IS:

1. A method for processing a payment transaction, comprising:

receiving, by a payor at a network interface, an
5 invoice generated from a first enterprise resource planning (ERP) system operated by a payee, the first ERP system having formatted the invoice in a first format;

storing the invoice in a memory in a second format compatible with a second ERP system, the invoice having
10 been converted from the first format to the second format, wherein the second format is different from the first format;

receiving approval of the invoice through the second ERP system;

15 generating, using one or more processors, an authorization, the authorization instructing a financial institution to transmit a payment to the payee;

transmitting, using the network interface, authorization to the financial institution;

20 generating, using one or more processors, a confirmation of the payment to the payee; and

transmitting, using the network interface, the confirmation to the payee.

25 2. The method of Claim 1, wherein:

the invoice is received from the payee in the first format; and

the invoice is converted from the first format to the second format at the payor.

30

3. The method of Claim 1, wherein:

the invoice is received from the payee in an intermediate format, the invoice having been converted

from the first format to the intermediate format at the payee and converted from the intermediate format to the second format at the payor.

5 4. The method of Claim 1, wherein:

 the invoice is received from the payee in the second format; and

 the invoice is converted from the first format to the second format at the payee prior to the receiving of
10 the invoice.

 5. The method of Claim 1, wherein the confirmation is transmitted to the payee in a selected one of the first format, an intermediate format, and the second
15 format.

 6. The method of Claim 2, wherein the converting the invoice from the first format to the second format comprises:

20 identifying, using one or more processors, one or more data fields in the invoice of the first format;

 identifying, using one or more processors, one or more corresponding data fields in the second format; and

 mapping, using one or more processors, the one or
25 more data fields in the invoice of the first format to the corresponding data fields in the second format.

7. A system for processing a payment transaction, comprising:

a first enterprise resource planning (ERP) system comprising logic encoded on a computer readable storage medium such that, when executed by a processor, is operable to:

receive, at a payor, an invoice generated from a second ERP system operated by a payee, the second ERP system having formatted the invoice in a first format;

storing the invoice in a memory in a second format compatible with the first ERP system, the invoice having been converted from the first format to the second format, wherein the second format is different from the first format;

receiving approval of the invoice through the first ERP system;

generate an authorization, the authorization instructing a financial institution to transmit a payment to the payee;

transmit authorization to the financial institution;

generate a confirmation of the payment to the payee; and

transmit the confirmation to the payee.

8. The system of Claim 7, wherein:

the invoice is received from the payee in the first format; and

the invoice is converted from the first format to the second format at the payor.

9. The system of Claim 7, wherein:

the invoice is received from the payee in an intermediate format, the invoice having been converted from the first format to the intermediate format at the payee and converted from the intermediate format to the
5 second format at the payor.

10. The system of Claim 7, wherein:

the invoice is received from the payee in the second format; and

10 the invoice is converted from the first format to the second format at the payee prior to the receiving of the invoice.

11. The system of Claim 7, wherein the confirmation
15 is transmitted to the payee in a selected one of the first format, an intermediate format, and the second format.

12. The system of Claim 8, wherein the logic, when
20 executed by the processor, being further operable to convert the invoice from the first format to the second format by:

identifying, using one or more processors, one or more data fields in the invoice of the first format;

25 identifying, using one or more processors, one or more corresponding data fields in the second format; and

mapping, using one or more processors, the one or more data fields in the invoice of the first format to the corresponding data fields in the second firm.

13. A method for processing a payment transaction, comprising:

generating, at a payee using one or more processors, an invoice using a first enterprise resource planning (ERP) system, wherein the invoice is formatted in a first format compatible with the first ERP system;

transmitting, using a network interface, the invoice to a payor;

receiving, at the network interface, a confirmation of a payment from the payor, the payor having generated the confirmation using a second ERP system in a second format different from the first format;

storing the confirmation in a memory in the first format, the confirmation having been converted from the second format to the first format compatible with the first ERP system; and

posting, using one or more processors, the confirmation to the first ERP system.

14. The method of Claim 13, wherein:

the confirmation is received from the payor in the second format; and

the confirmation is converted from the second format to the first format at the payee.

25

15. The method of Claim 13, wherein:

the confirmation is received from the payor in an intermediate format, the confirmation having been converted from the second format to the intermediate format at the payor and converted from the intermediate format to the first format at the payee.

30

16. The method of Claim 13, wherein:

the confirmation is received from the payor in the first format; and

the confirmation is formatted from the second format to the first format at the payor prior to the
5 transmitting of the confirmation.

17. The method of Claim 13, wherein the invoice is transmitted to the payor in a selected one of the first format, an intermediate format, and the second format.

10

18. The method of Claim 14, wherein the converting the confirmation from the second format to the first format comprises:

identifying, using one or more processors, one or
15 more data fields in the confirmation of the second format;

identifying, using one or more processors, one or more corresponding data fields in the first format; and

mapping, using one or more processors, the one or
20 more data fields in the confirmation of the second format to the corresponding data fields in the first format.

19. A system for processing a payment transaction, comprising:

25 a first enterprise resource planning (ERP) system comprising logic encoded on a computer readable storage medium such that, when executed by a processor, is operable to:

generate, at a payee, an invoice using the
30 first ERP system, wherein the invoice is formatted in a first format compatible with the first ERP system;

transmit the invoice to a payor;

receive a confirmation of a payment from the payor, the payor having generated the confirmation using a second ERP system in a second format different from the first format;

5 store the confirmation in the first format, the confirmation having been converted from the second format to the first format compatible with the first ERP system; and
 post the confirmation to the first ERP system.

10

20. The system of Claim 19, wherein:

the confirmation is received from the payor in the second format; and

15 the confirmation is converted from the second format to the first format at the payee.

21. The system of Claim 19, wherein:

20 the confirmation is received from the payor in an intermediate format, the confirmation having been converted from the second format to the intermediate format at the payor and converted from the intermediate format to the first format at the payee.

22. The system of Claim 19, wherein:

25 the confirmation is received from the payor in the first format; and

the confirmation is formatted from the second format to the first format at the payor prior to the transmitting of the confirmation.

30

23. The system of Claim 19, wherein the invoice is transmitted to the payor in a selected one of the first format, an intermediate format, and the second format.

24. The system of Claim 20, wherein the logic, when executed by the processor, being further operable to convert the invoice from the second format to the first
5 format by:

identifying one or more data fields in the confirmation of the second format;

identifying one or more corresponding data fields in the first format; and

10 mapping the one or more data fields in the confirmation of the second format to the corresponding data fields in the first format.

25. A method for processing a payment transaction,
15 comprising:

receiving, by a payor at a network interface, an invoice, a payee having generated the invoice by generating an electronic representation of a paper invoice;

20 storing the invoice in a memory in a format compatible with an enterprise resource planning (ERP) system, the invoice having been converted from the electronic representation into the format compatible with the ERP system, wherein the format is different from the
25 electronic representation generated by the payee;

receiving approval of the invoice through the ERP system;

generating, using one or more processors, an authorization, the authorization instructing a financial
30 institution to transmit a payment to the payee;

transmitting, using the network interface, the authorization to the financial institution;

generating, using one or more processors, a confirmation of the payment to the payee; and

transmitting, using the network interface, the confirmation to a viewing platform accessible by the
5 payee.

26. The method of Claim 25, the viewing platform comprising an electronic mail message transmitted to the payee.

10

27. The method of Claim 25, the viewing platform comprising a website accessible by the payee.

28. The method of Claim 25, wherein the invoice is
15 received from the payee in an intermediate format, the invoice having been converted from the electronic representation generated by the payee to the intermediate format, the method further comprising converting the invoice from the intermediate format to the format
20 compatible with the ERP system.

29. A system for processing a payment transaction, comprising:

a first enterprise resource planning (ERP) system
25 comprising logic encoded on a computer readable storage medium such that, when executed by a processor, is operable to:

receive, at a payor, an invoice, a payee having generated the invoice by generating an electronic
30 representation of a paper invoice;

store the invoice in a memory in a format compatible with an enterprise resource planning (ERP) system, the invoice having been converted from

the electronic representation into the format compatible with the ERP system, wherein the format is different from the electronic representation generated by the payee;

5 receive approval of the invoice through the ERP system;

 generate an authorization, the authorization instructing a financial institution to transmit a payment to the payee;

10 transmit the authorization to the financial institution;

 generate a confirmation of the payment to the payee; and

 transmit the confirmation to a viewing platform
15 accessible by the payee.

30. The system of Claim 29, the viewing platform comprising an electronic mail message transmitted to the payee.

20

31. The system of Claim 29, the viewing platform comprising a website accessible by the payee.

32. The system of Claim 29, wherein the invoice is
25 received from the payee in an intermediate format, the invoice having been converted from the electronic representation generated by the payee to the intermediate format, the method further comprising converting the invoice from the intermediate format to the format
30 compatible with the ERP system.

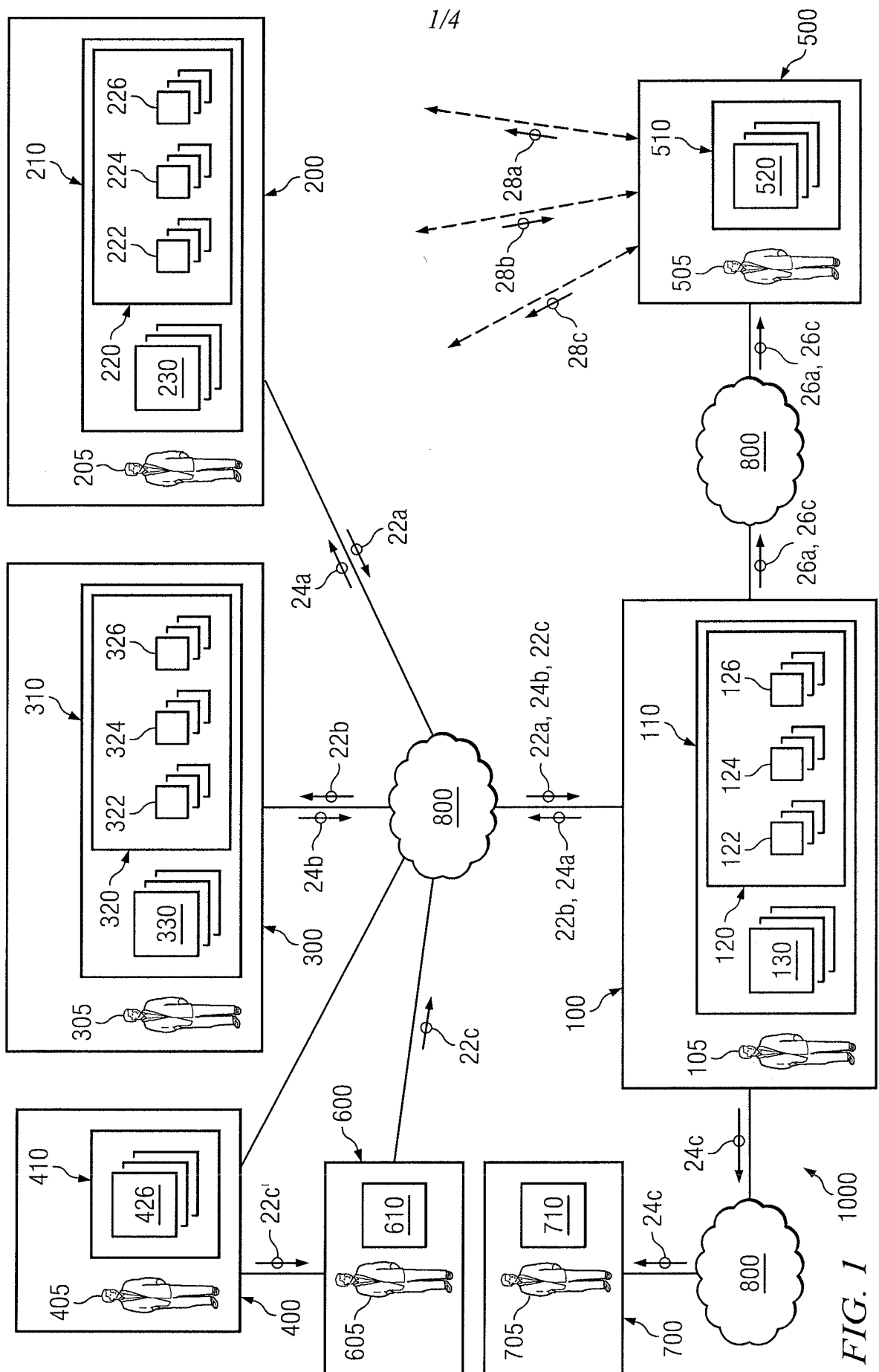


FIG. 1

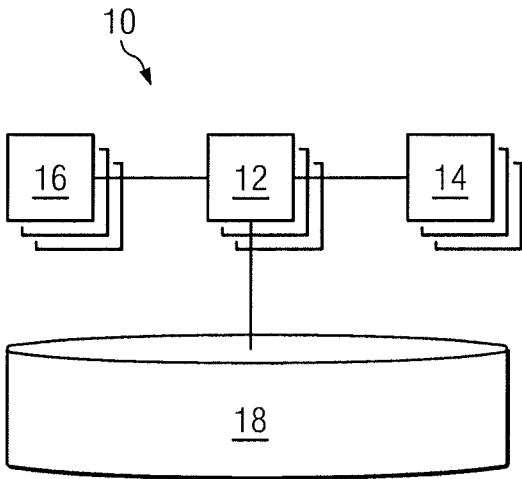


FIG. 2

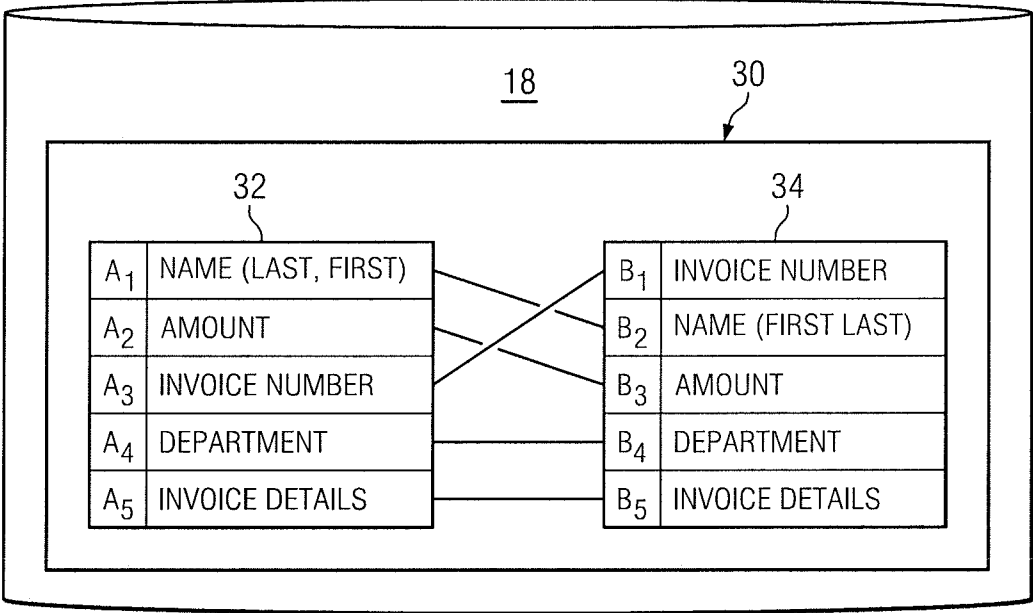


FIG. 3

3/4

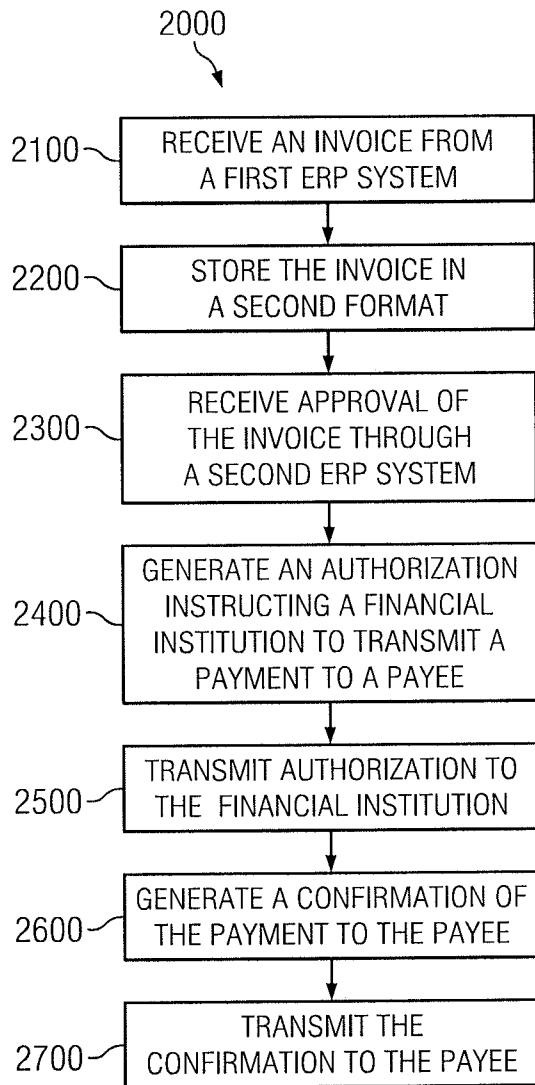


FIG. 4

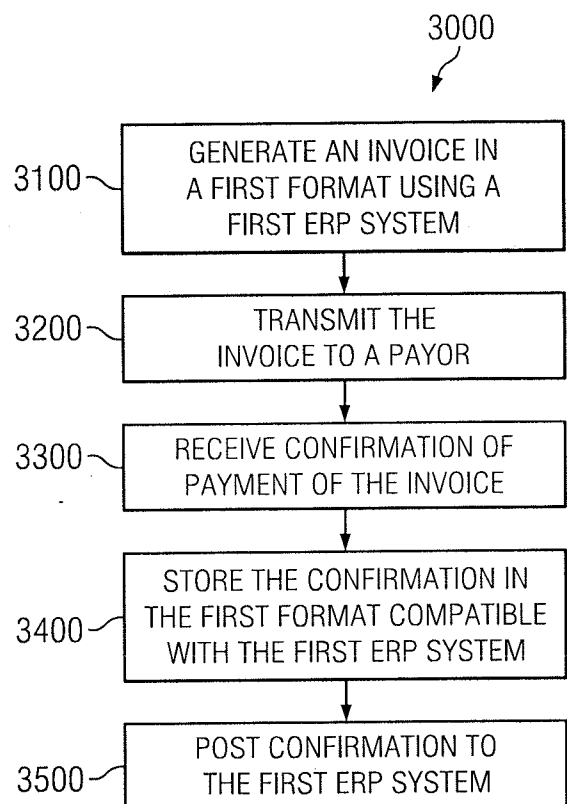
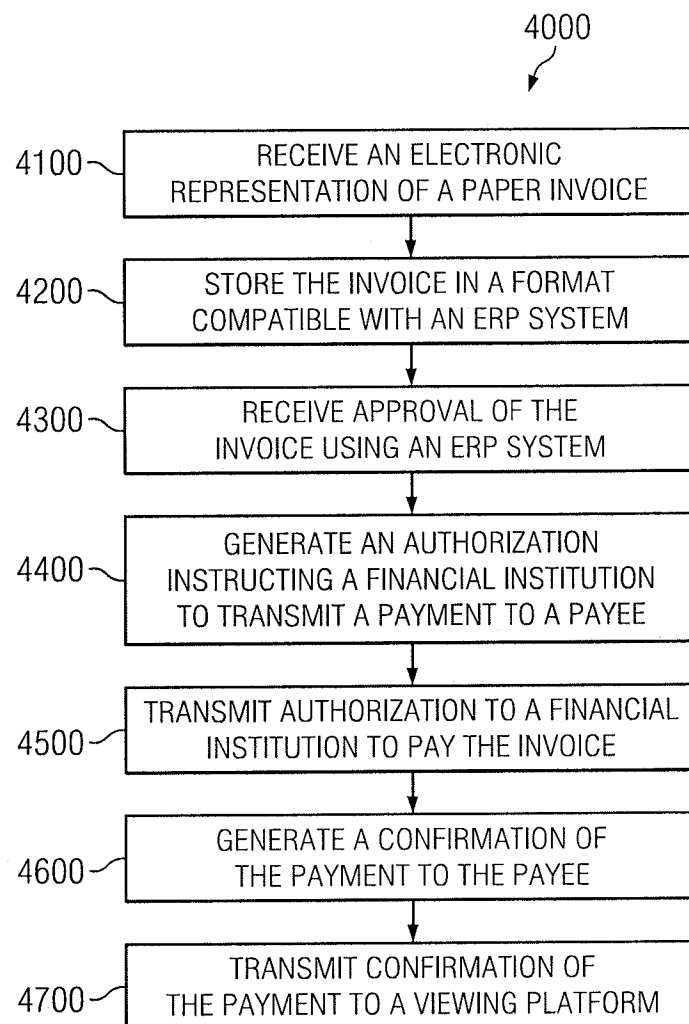


FIG. 5

*FIG. 6*

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 10/56787

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G06Q 40/00 (2010.01) USPC - 705/40 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC (8) - G06Q 40/00 (2010.01) USPC - 705/40 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC - 705/1.1, 10, 34, 35, 39, 44, 45 (See Keywords Below) Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Pub WEST (USPT, PGPB, JPAB, EPAB), Google Scholar Search History: invoice, payment, transaction, processing, settlement, settling, generat, create, construct, compose, compile, invoice, bill of sale, statement, ERP, enterprise resource planning, convert, translate, transform, change, format, approve, authenticate, verify....		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,826,542 B1 (VIRGIN et al.), 30 November 2004 (30.11.2004), entire document, especially Abstract; Col 5, Ln 54-67; Col 7, Ln 60 to Col 8, Ln 19; Col 8, Ln 63 to Col 9, Ln 38; Col 11, Ln 41 to Col 12, Ln 38; Col 15, Ln 1-51	1-32
Y	US 2003/0220855 A1 (LAM et al.), 27 November 2003 (27.11.2003), entire document, especially Abstract; FIG. 3; Para [0021], [0056], [0069], [0071], [0084]-[0086], [0090]-[0092], [0099]-[0102], [0109]	1-32
Y	US 2005/0177476 A1 (MCCANDLESS et al.), 11 August 2005 (11.08.2005), entire document, especially Abstract; Para [0029], [0040], [0045]-[0048], [0057]	25-32
A	US 2009/0089194 A1 (MATHIS et al.), 02 April 2009 (02.04.2009), entire document	1-32
A	US 7,509,288 B2 (BENNETT et al.), 24 March 2009 (24.03.2009), entire document	1-32
☐ Further documents are listed in the continuation of Box C. ☐		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 11 January 2011 (11.01.2011)		Date of mailing of the international search report 01 FEB 2011
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774