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(54) Title: METHOD AND SYSTEM FOR INTEGRATING BUSINESS INVOICES INTO A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM

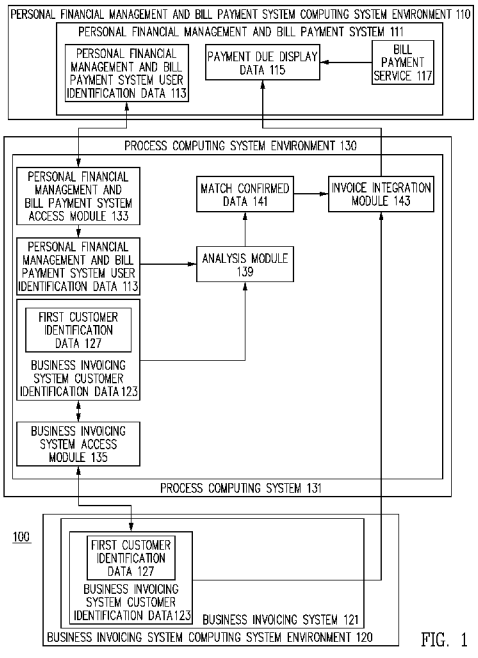


FIG. 1

(57) Abstract: Personal financial management and bill payment system user identification data associated with users of a personal financial management and bill payment system and business invoicing system customer identification data associated with customers of user businesses of a business invoicing system is obtained and analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system. Once a user of the personal financial management and bill payment system that is also a customer of a business user of the business invoicing system is identified, the business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the business user of the business invoicing system to the user of the personal financial management and bill payment system through the personal financial management and bill payment system.

[Continued on next page]

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METHOD AND SYSTEM FOR INTEGRATING BUSINESS INVOICES INTO A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM

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BACKGROUND

[0001] Currently, several personal financial management and bill payment systems are available to help a personal financial management and bill payment system user, or any authorized party acting on behalf of a personal financial management and bill payment system user, obtain financial transaction data representing financial transactions conducted by the user, process/analyze the financial transaction data, display categorized financial transaction data, generate financial transaction reports, generate bills due and payment due reports, and/or make manual, semi-automated, and/or automatic bill payments through the personal financial management and bill payment system.

[0002] Some personal financial management and bill payment systems help users manage their finances and/or track their expenditures/financial transactions by providing a centralized interface with banks, credit card companies, and various other financial institutions, for electronically identifying and categorizing the user's financial transaction data. Currently, personal financial management and bill payment systems typically obtain electronic financial transaction data, such as payee data, payment amount data, date data, etc. via communication with banks, credit card providers, or other financial institutions, using electronic data transfer systems, or various other systems for obtaining/transferring financial transaction data.

[0003] Personal financial management and bill payment systems have proven to be very popular and valuable tools for the users of the personal financial management and bill payment systems. This is largely due to the fact that using a personal financial management and bill payment system, a user can obtain most, if not all, of their financial transaction data from multiple sources and this data can be processed and analyzed in its entirety to create in depth, and very complete reports. One such report is a "bills due" or "payment due" report.

[0004] Typically, a payment due report includes a listing of payments due within a defined period of time, such as a month, which require the user's attention. In some cases, the user of the personal financial management and bill payment system is also provided the capability to make the listed payments on a manual, semi-automatic, i.e., with user approval, or automatic, basis. Users of personal financial management and bill payment systems have come to rely on these payment due reports and often use the reports, and payment features, to pay their bills through the personal financial management and bill payment system.

[0005] As used herein, the term "bill" includes, but is not limited to, an account statement or other potentially recurring cost and financial transaction. Examples of bills include, but are not limited to: rent payments, utility payments, credit card payments, grocery store payments, vehicle costs, etc. In contrast to the term "bill", herein the term "invoice" includes, but is not limited to, costs associated with a specific product and/or service provided by a business and for which full payment is requested via the invoice document. A given invoice is therefore typically a non-recurring expense and/or is associated with specific products and/or services rendered, even though multiple, and even recurring identical, invoices can be generated by the same business for the same customer if multiple products and/or services, even the same products and/or services, are provided as payment due transactions.

[0006] Herein the terms "payment" and/or "payment due" are used interchangeably and include any payment owed by a first party, i.e., payor party, to a second party, i.e., a payee party. Consequently, as used herein, the terms "payment" and/or "payment due" include both "bills" and "invoices."

[0007] One side effect of the popularity of payment due reports and the bill payment features offered through some personal financial management and bill payment systems is that users of personal financial management and bill payment systems come to depend on the personal financial management and bill payment systems to inform them of all payments due and to be able to schedule all their payments through the personal financial management and bill payment systems. Consequently, any payments due not included in the payment due reports, and/or not capable of being paid through the bill payment feature of the personal financial management and bill payment systems, represent a potential problem, or at least an inconvenience, to the users of the personal financial management and bill payment systems.

[0008] In short, as users of personal financial management and bill payment systems come to rely on the payment due reports and the bill payment features offered through some personal financial management and bill payment systems, they desire that the payment due

reports provide a complete listing of their payments due, including bills and invoices, and/or that the bill payment features of currently available personal financial management and bill payment systems provide them the capability to pay all their payments due, including bills and invoices, through the personal financial management and bill payment systems, and/or that both bills and invoices be processed correctly using the personal financial management and bill payment systems.

[0009] This represents a significant and long standing technical problem in the financial management system, payment processing, and invoicing arts. This is because currently available personal financial management and bill payment systems process financial transaction data largely associated with recurring payments and/or revolving accounts, i.e., bills, such as credit card accounts, that can be identified through analysis of the users' financial transaction data history. In particular, currently available personal financial management and bill payment systems only identify recurring bills for inclusion in payment due reports, and/or other reminders of payments due, that are ultimately provided to the users of the personal financial management and bill payment systems. As a result, currently, one time only payments due, or non-revolving accounts, such as invoices, are almost never identified or included in the payment due reports generated by personal financial management and bill payment systems.

[0010] As a result of the situation described above, users of financial management and bill payment systems are currently not provided the full functionality they desire from their financial management and bill payment systems. This is because, users of financial management and bill payment systems must currently deal with at least two classes of payments each month: those that can be identified and paid through their financial management and bill payment system, and those that must be identified and paid using some other mechanism. Clearly it is desirable to have all payments due, or as many as possible, fall into the category of payments that can be identified and paid through the financial management and bill payment system.

[0011] In addition, as a result of the situation described above, businesses generating invoices for their customers must currently rely on delivering their invoices to the customers through secondary, i.e., non-personal financial management and bill payment system, mechanisms and/or processes such as e-mail or postal service. This, in turn, often leads to a situation where the invoicing business has trouble getting invoices in front of their customers, and/or getting their customers' attention, and/or integrating their invoices into the customers' payment routine, and/or getting paid. This situation exists today despite the fact that most

businesses are business users of sophisticated business invoicing systems and/or business financial management systems that include business invoicing features.

[0012] Consequently, there is a long standing technical problem in the financial management system, payment processing, and invoicing arts in that businesses generating invoices are currently unable to access personal financial management and bill payment systems used by their customers and provide invoices to their customers through the personal financial management and bill payment systems used by their customers. What is needed is a method and system for identifying users of a personal financial management and bill payment system that are also customers of a business and then providing the business the capability to provide their invoices to customer users of a personal financial management and bill payment system through the personal financial management and bill payment system.

SUMMARY

[0013] In accordance with one embodiment, personal financial management and bill payment system user identification data associated with users of a personal financial management and bill payment system and business invoicing system customer identification data associated with customers of user businesses of a business invoicing system is obtained and analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system.

[0014] In one embodiment, once a user of the personal financial management and bill payment system that is also a customer of a business user of the business invoicing system is identified, the business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the business user of the business invoicing system to the user of the personal financial management and bill payment system through the personal financial management and bill payment system.

[0015] Consequently, disclosed herein is an efficient, effective, and dynamically adaptable technical solution to the long standing technical problem in the financial management system, payment processing, and invoicing arts of providing businesses access to personal financial management and bill payment systems used by their customers in order to provide invoices to their customers through the personal financial management and bill payment systems.

[0016] In accordance with one embodiment, a business invoicing system is provided to business users of the business invoicing system. In accordance with one embodiment, access to

business invoicing system customer identification data generated through a business invoicing system is obtained. In one embodiment, the business invoicing system customer identification data is associated with customers of user businesses of the business invoicing system. In one embodiment, the business invoicing system customer identification data is stored in a partitioned business invoicing system customer identification data section of a memory.

[0017] In accordance with one embodiment, the personal financial management and bill payment system user identification data in the partitioned personal financial management and bill payment system user identification data section of a memory and the business invoicing system customer identification data in the partitioned business invoicing system customer identification data section of a memory is accessed and the personal financial management and bill payment system user identification data and the business invoicing system customer identification data is analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system.

[0018] In accordance with one embodiment, a first user of the personal financial management and bill payment system that is also a first customer of a first business user of the business invoicing system is identified. In accordance with one embodiment, the first user of the personal financial management and bill payment system is provided the opportunity to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system.

[0019] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, the first business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system.

[0020] The disclosed embodiments provide an efficient, effective, and dynamically adaptable method and system to solve the long standing technical problem of the inability of businesses to access personal financial management and bill payment systems used by their customers and provide invoices to their customers through the personal financial management and bill payment systems used by their customers.

[0021] However, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system does not encompass, embody, or

preclude other forms of innovation in the area of automated financial transaction bill payment processing and invoicing. In addition, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system is not related to any fundamental economic practice, fundamental data processing practice, mental steps, or pen and paper based solution. In fact, the disclosed embodiments are directed to providing solutions to the relatively new problems associated with the automatic processing and display of electronic financial transaction data obtained from multiple sources, making electronic bill payments, and the management and processing of large amounts of data, i.e., "big data." Consequently, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system is not directed to, does not encompass, and is not merely, an abstract idea or concept.

[0022] In addition, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system provides for significant improvements to the technical fields of electronic transaction data processing, invoicing, financial transaction categorization, information dissemination, data processing, data management, data filtering and mining, automatic electronic bill payment, and user experience.

[0023] In addition, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system provides for the entry, processing, and dissemination, of only relevant portions of data; thereby eliminating unnecessary data analysis and correction before resources are allocated to processing, and/or correcting, faulty/irrelevant data, and/or the faulty/irrelevant data is further transmitted/distributed.

[0024] Consequently, using the disclosed method and system for integrating business invoices into a personal financial management and bill payment system results in more efficient use of human and non-human resources, fewer processor cycles being utilized, reduced memory utilization, and less communications bandwidth being utilized to relay data to, and from, backend systems and client systems. As a result, computing systems are transformed into faster, more efficient, and more effective computing systems by implementing the method and system for integrating business invoices into a personal financial management and bill payment system.

BRIEF DESCRIPTION OF THE DRAWINGS

[0025] FIG.1 is a high level functionality-based block diagram of a hardware and production environment for integrating business invoices into a personal financial management and bill payment system, in accordance with one embodiment; and

[0026] FIG. 2 is a flow chart representing one example of a generalized process for integrating business invoices into a personal financial management and bill payment system, in accordance with one embodiment.

[0027] Common reference numerals are used throughout the FIG.s and the detailed description to indicate like elements. One skilled in the art will readily recognize that the above FIG.s are examples and that other architectures, modes of operation, orders of operation, and elements/functions can be provided and implemented without departing from the characteristics and features of the invention, as set forth in the claims.

TERM DEFINITIONS

[0028] Herein, the term "personal financial management and bill payment system" includes, but is not limited to, the following: computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal financial transaction aggregation and/or processing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal financial management and budgeting systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal data management systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal accounting systems, services, packages, programs, modules, or applications; personal electronic tax preparation systems, services, packages, programs, modules, or applications; and various other personal electronic data management systems, services, packages, programs, modules, or applications, whether known at the time of filling, or as developed later.

[0029] Specific examples of personal financial management and bill payment systems include, but are not limited to the following: Mint™, available from Intuit, Inc. of Mountain View, California; Mint Online™, available from Intuit, Inc. of Mountain View, California;

TurboTax™ available from Intuit, Inc. of Mountain View, California; TurboTax Online™ available from Intuit, Inc. of Mountain View, California; and/or various other software systems discussed herein, and/or known to those of skill in the art at the time of filing, and/or as developed after the time of filing.

[0030] Herein, the term "business invoicing system" includes, but is not limited to, any system through which a business can generate, and/or submit, and/or process invoices requesting payment for products and/or services provided by the business to customers of the business. Therefore, the term "business invoicing system" includes, but is not limited to, the following: computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business accounting and/or invoicing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business financial transaction aggregation and/or processing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business financial management and budgeting systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business management systems, services, packages, programs, modules, or applications; business electronic tax preparation systems, services, packages, programs, modules, or applications; and various other business electronic data management systems, services, packages, programs, modules, or applications, whether known at the time of filling, or as developed later.

[0031] Specific examples of "business invoicing systems" include, but are not limited to, the following: QuickBooks™, available from Intuit, Inc. of Mountain View, California; QuickBooks Online™, available from Intuit, Inc. of Mountain View, California; QuickBooks Self-Employed™, available from Intuit, Inc. of Mountain View, California; TurboTax™ available from Intuit, Inc. of Mountain View, California; TurboTax Online™ available from Intuit, Inc. of Mountain View, California; and/or various other software systems discussed herein, and/or known to those of skill in the art at the time of filing, and/or as developed after the time of filing.

[0032] Herein, the terms "software system" and "software application" are used interchangeably and can be, but are not limited to, any data management system implemented on

a computing system, accessed through one or more servers, accessed through a network, accessed through a cloud, and/or provided through any system or by any mechanism and/or process, as discussed herein, and/or as known in the art at the time of filing, and/or as developed after the time of filing, that gathers/obtains data, from one or more sources and/or has the capability to analyze at least part of the data.

[0033] As used herein, the terms "computing system," "computing device," and "computing entity," include, but are not limited to, the following: a server computing system; a workstation; a desktop computing system; a mobile computing system, including, but not limited to, smart phones, portable devices, and/or devices worn or carried by a user; a database system or storage cluster; a virtual asset; a switching system; a router; any hardware system; any communications system; any form of proxy system; a gateway system; a firewall system; a load balancing system; or any device, subsystem, or mechanism that includes components that can execute all, or part, of any one of the processes and/or operations as described herein.

[0034] In addition, as used herein, the terms "computing system" and "computing entity," can denote, but are not limited to the following: systems made up of multiple virtual assets, server computing systems, workstations, desktop computing systems, mobile computing systems, database systems or storage clusters, switching systems, routers, hardware systems, communications systems, proxy systems, gateway systems, firewall systems, load balancing systems, or any devices that can be used to perform the processes and/or operations as described herein.

[0035] Herein, the terms "mobile computing system" and "mobile device" are used interchangeably and include, but are not limited to the following: a smart phone; a cellular phone; a digital wireless telephone; a tablet computing system; a notebook computing system; any portable computing system; a two-way pager; a Personal Digital Assistant (PDA); a media player; an Internet appliance; devices worn or carried by a user; or any other movable/mobile device and/or computing system that includes components that can execute all, or part, of any one of the processes and/or operations as described herein.

[0036] Herein, the term "production environment" includes the various components, or assets, used to deploy, implement, access, and use, a given software system as that software system is intended to be used. In various embodiments, production environments include multiple computing systems and/or assets that are combined, communicatively coupled, virtually and/or physically connected, and/or associated with one another, to provide the production environment implementing the application.

[0037] As specific illustrative examples, the assets making up a given production environment can include, but are not limited to, the following: one or more computing environments used to implement at least part of the software system in the production environment such as a data center, a cloud computing environment, a dedicated hosting environment, and/or one or more other computing environments in which one or more assets used by the application in the production environment are implemented; one or more computing systems or computing entities used to implement at least part of the software system in the production environment; one or more virtual assets used to implement at least part of the software system in the production environment; one or more supervisory or control systems, such as hypervisors, or other monitoring and management systems used to monitor and control assets and/or components of the production environment; one or more communications channels for sending and receiving data used to implement at least part of the software system in the production environment; one or more access control systems for limiting access to various components of the production environment, such as firewalls and gateways; one or more traffic and/or routing systems used to direct, control, and/or buffer data traffic to components of the production environment, such as routers and switches; one or more communications endpoint proxy systems used to buffer, process, and/or direct data traffic, such as load balancers or buffers; one or more secure communication protocols and/or endpoints used to encrypt/decrypt data, such as Secure Sockets Layer (SSL) protocols, used to implement at least part of the software system in the production environment; one or more databases used to store data in the production environment; one or more internal or external services used to implement at least part of the software system in the production environment; one or more backend systems, such as backend servers or other hardware used to process data and implement at least part of the software system in the production environment; one or more software modules/functions used to implement at least part of the software system in the production environment; and/or any other assets/components making up an actual production environment in which at least part of the software system is deployed, implemented, accessed, and run, e.g., operated, as discussed herein, and/or as known in the art at the time of filing, and/or as developed after the time of filing.

[0038] As used herein, the term “computing environment” includes, but is not limited to, a logical or physical grouping of connected or networked computing systems and/or virtual assets using the same infrastructure and systems such as, but not limited to, hardware systems, software systems, and networking/communications systems. Typically, computing environments

are either known, "trusted" environments or unknown, "untrusted" environments. Typically, trusted computing environments are those where the assets, infrastructure, communication and networking systems, and security systems associated with the computing systems and/or virtual assets making up the trusted computing environment, are either under the control of, or known to, a party.

[0039] In various embodiments, each computing environment includes allocated assets and virtual assets associated with, and controlled or used to create, and/or deploy, and/or operate at least part of the software system.

[0040] In various embodiments, one or more cloud computing environments are used to create, and/or deploy, and/or operate at least part of the software system that can be any form of cloud computing environment, such as, but not limited to, a public cloud; a private cloud; a virtual private network (VPN); a subnet; a Virtual Private Cloud (VPC); a sub-net or any security/communications grouping; or any other cloud-based infrastructure, sub-structure, or architecture, as discussed herein, and/or as known in the art at the time of filing, and/or as developed after the time of filing.

[0041] In many cases, a given software system or service may utilize, and interface with, multiple cloud computing environments, such as multiple VPCs, in the course of being created, and/or deployed, and/or operated.

[0042] As used herein, the term "virtual asset" includes any virtualized entity or resource, and/or virtualized part of an actual, or "bare metal" entity. In various embodiments, the virtual assets can be, but are not limited to, the following: virtual machines, virtual servers, and instances implemented in a cloud computing environment; databases associated with a cloud computing environment, and/or implemented in a cloud computing environment; services associated with, and/or delivered through, a cloud computing environment; communications systems used with, part of, or provided through a cloud computing environment; and/or any other virtualized assets and/or sub-systems of "bare metal" physical devices such as mobile devices, remote sensors, laptops, desktops, point-of-sale devices, etc., located within a data center, within a cloud computing environment, and/or any other physical or logical location, as discussed herein, and/or as known/available in the art at the time of filing, and/or as developed/made available after the time of filing.

[0043] In various embodiments, any, or all, of the assets making up a given production environment discussed herein, and/or as known in the art at the time of filing, and/or as developed after the time of filing can be implemented as one or more virtual assets.

[0044] In one embodiment, two or more assets, such as computing systems and/or virtual assets, and/or two or more computing environments are connected by one or more communications channels including but not limited to, Secure Sockets Layer (SSL) communications channels and various other secure communications channels, and/or distributed computing system networks, such as, but not limited to the following: a public cloud; a private cloud; a virtual private network (VPN); a subnet; any general network, communications network, or general network/communications network system; a combination of different network types; a public network; a private network; a satellite network; a cable network; or any other network capable of allowing communication between two or more assets, computing systems, and/or virtual assets, as discussed herein, and/or available or known at the time of filing, and/or as developed after the time of filing.

[0045] As used herein, the term "network" includes, but is not limited to, any network or network system such as, but not limited to, the following: a peer-to-peer network; a hybrid peer-to-peer network; a Local Area Network (LAN); a Wide Area Network (WAN); a public network, such as the Internet; a private network; a cellular network; any general network, communications network, or general network/communications network system; a wireless network; a wired network; a wireless and wired combination network; a satellite network; a cable network; any combination of different network types; or any other system capable of allowing communication between two or more assets, virtual assets, and/or computing systems, whether available or known at the time of filing or as later developed.

[0046] Herein, the term "party," "user," "user consumer," and "customer" are used interchangeably to denote any party and/or entity that interfaces with, and/or to whom information is provided by, the method and system for integrating business invoices into a personal financial management and bill payment system described herein, and/or a person and/or entity that interfaces with, and/or to whom information is provided by, the method and system for integrating business invoices into a personal financial management and bill payment system described herein, and/or a legal guardian of person and/or entity that interfaces with, and/or to whom information is provided by, the method and system for integrating business invoices into a personal financial management and bill payment system described herein, and/or an authorized agent of any party and/or person and/or entity that interfaces with, and/or to whom information is provided by, the method and system for integrating business invoices into a personal financial management and bill payment system described herein. For instance, in various embodiments, a

user can be, but is not limited to, a person, a commercial entity, an application, a service, and/or a computing system.

[0047] Herein, the term "financial transaction" includes, but is not limited to, any interaction between two or more parties involving the transfer, or re-categorization, of funds between the parties. Herein, the term "financial transaction data" includes, but is not limited to, electronic data representing at least one financial transaction and that is capable of being processed by a processor, and/or stored in a memory, and/or is otherwise machine readable.

[0048] Herein, the term "product and/or service provider" includes any party and/or entity that is associated with a user through a financial transaction represented by financial transaction data.

[0049] As used herein, the term "bill" includes, but is not limited to, an account statement or other potentially recurring cost and financial transaction. Examples of bills include, but are not limited to: rent payments, utility payments, credit card payments, grocery store payments, vehicle costs, etc.

[0050] In contrast to the term "bill", herein the term "invoice" includes, but is not limited to costs associated with a specific product and/or service provided by a business and for which full payment is requested via the invoice document. A given invoice is therefore typically a non-recurring expense and/or is associated with specific products and/or services rendered, even though multiple, and even recurring identical, invoices can be generated by the same business for the same customer if multiple products and/or services, even the same products and/or services, are provided.

[0051] Herein the terms "payment" and/or "payment due" are used interchangeably and include any payment owed by a first party, i.e., payor party, to a second party, i.e., a payee party. Consequently, as used herein, the terms "payment" and/or "payment due" include both "bills" and "invoices."

DETAILED DISCLOSURE

[0052] Embodiments will now be discussed with reference to the accompanying FIG.s, which depict one or more exemplary embodiments. Embodiments may be implemented in many different forms and should not be construed as limited to the embodiments set forth herein, shown in the FIG.s, and/or described below. Rather, these exemplary embodiments are provided to allow a complete disclosure that conveys the principles of the invention, as set forth in the claims, to those of skill in the art.

[0053] The embodiments described herein provide an efficient, effective, and dynamically adaptable technical solution to the long standing technical problem in the financial management system, payment processing, and invoicing arts of providing businesses access to personal financial management and bill payment systems used by their customers in order to provide invoices to their customers through the personal financial management and bill payment systems.

[0054] In one embodiment, a personal financial management and bill payment system is provided using one or more computing systems.

[0055] As noted above, herein, the term "personal financial management and bill payment system" includes, but is not limited to, the following: computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal financial transaction aggregation and/or processing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal financial management and budgeting systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal data management systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal accounting systems, services, packages, programs, modules, or applications; personal electronic tax preparation systems, services, packages, programs, modules, or applications; and various other personal electronic data management systems, services, packages, programs, modules, or applications, whether known at the time of filling, or as developed later.

[0056] As noted above, specific examples of personal financial management and bill payment systems include, but are not limited to the following: Mint™, available from Intuit, Inc. of Mountain View, California; Mint Online™, available from Intuit, Inc. of Mountain View, California; TurboTax™ available from Intuit, Inc. of Mountain View, California; TurboTax Online™ available from Intuit, Inc. of Mountain View, California; and/or various other software systems discussed herein, and/or known to those of skill in the art at the time of filing, and/or as developed after the time of filing.

[0057] In accordance with one embodiment, one or more processors associated with one or more computing systems are utilized to obtain access to personal financial management and

bill payment system user identification data associated with users of a personal financial management and bill payment system.

[0058] In accordance with one embodiment, one or more processors associated with one or more computing systems are utilized to obtain access to personal financial management and bill payment system user identification data associated with users of the personal financial management and bill payment system by obtaining access to user profile data associated with the users of the personal financial management and bill payment system.

[0059] In accordance with one embodiment, one or more processors associated with one or more computing systems are utilized to obtain access to personal financial management and bill payment system user identification data associated with users of the personal financial management and bill payment system by obtaining access to user accounts data associated with the users of the personal financial management and bill payment system.

[0060] In various embodiments, the personal financial management and bill payment system user identification data includes, but is not limited to, any one or more of the following: e-mail addresses associated with the users; postal/mailing addresses associated with the users; phone numbers associated with the users; and/or any other form of user identification data as discussed herein, and/or as known in the art at the time of filing, and/or as developed or becomes known after the time of filing.

[0061] In one embodiment, the personal financial management and bill payment system user identification data is verified using one or more verification mechanisms and/or processes, such as but not limited to, contacting the users using the personal financial management and bill payment system user identification data; cross confirming the personal financial management and bill payment system user identification data with social media site sources; cross confirming the personal financial management and bill payment system user identification data with other sources of user identification data; and/or any other mechanism for verifying personal financial management and bill payment system user identification data as discussed herein, and/or as known in the art at the time of filing, and/or as developed or becomes known after the time of filing.

[0062] In one embodiment, the personal financial management and bill payment system user identification data obtained is stored in a partitioned personal financial management and bill payment system user identification data section of a memory.

[0063] In accordance with one embodiment, a business invoicing system is provided to business users of the business invoicing system.

[0064] As noted above, herein, the term "business invoicing system" includes, but is not limited to, any system through which a business can generate, and/or submit, and/or process invoices requesting payment for products and/or services provided by the business to customers of the business. Therefore, the term "business invoicing system" includes, but is not limited to, the following: computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business accounting and/or invoicing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business financial transaction aggregation and/or processing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business financial management and budgeting systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business management systems, services, packages, programs, modules, or applications; business electronic tax preparation systems, services, packages, programs, modules, or applications; and various other business electronic data management systems, services, packages, programs, modules, or applications, whether known at the time of filling, or as developed later.

[0065] Specific examples of "business invoicing systems" include, but are not limited to, the following: QuickBooks™, available from Intuit, Inc. of Mountain View, California; QuickBooks Online™, available from Intuit, Inc. of Mountain View, California; QuickBooks Self-Employed™, available from Intuit, Inc. of Mountain View, California; TurboTax™ available from Intuit, Inc. of Mountain View, California; TurboTax Online™ available from Intuit, Inc. of Mountain View, California; and/or various other software systems discussed herein, and/or known to those of skill in the art at the time of filing, and/or as developed after the time of filing.

[0066] Currently, personal financial management and bill payment systems and business invoicing systems are typically distinct software systems operated and/or used by two distinct parties, e.g., a customer of a business and an owner of a business, respectively. Therefore, currently, personal financial management and bill payment systems and business invoicing systems typically operate in isolation from each other, even when they are offered by the same personal financial management and bill payment system and business invoicing system provider.

[0067] As a specific illustrative example, in one embodiment, the personal financial management and bill payment system used by a customer of a business, or other user, could be a personal financial transaction management system such as Mint™, available from Intuit, Inc. of Mountain View, California. In this specific illustrative example, a business invoicing system, used by a business user, could be a business invoicing system such as QuickBooks™, available from Intuit, Inc. of Mountain View, California. As seen in this specific illustrative example, both the personal financial management and bill payment system and the business invoicing system are offered by the same software system provider, i.e., in this specific case, Intuit, Inc. of Mountain View, California. Consequently, according to one embodiment, in this specific illustrative example, the personal financial management and bill payment system and the business invoicing system are provided the opportunity to cross pollinate and cross confirm supported data. This approach has several unique advantages.

[0068] In some embodiments, the business invoicing system is part of, and/or a feature of, a parent small business financial management system.

[0069] In one embodiment, one or more processors associated with one or more computing systems are utilized to obtain access to business invoicing system customer identification data generated through a business invoicing system.

[0070] In accordance with one embodiment, one or more processors associated with one or more computing systems are utilized to obtain access to business invoicing system customer identification data generated through a business invoicing system by obtaining access to business user account data and customer profile data associated with the customers of the business users of the business invoicing system.

[0071] In one embodiment, the business invoicing system customer identification data is associated with customers of user businesses of the business invoicing system and includes, but is not limited to, any one or more of the following: e-mail addresses associated with customers of user businesses of the business invoicing system; postal/mailing addresses associated with customers of user businesses of the business invoicing system; phone numbers associated with customers of user businesses of a business invoicing system; and/or any other form of customers of user businesses of a business invoicing system identification data as discussed herein, and/or as known in the art at the time of filing, and/or as developed or becomes known after the time of filing.

[0072] In one embodiment, the business invoicing system customer identification data is verified using one or more verification mechanisms and/or processes, such as but not limited to,

contacting the business invoicing system customers using the business invoicing system customer identification data; cross confirming the business invoicing system customer identification data with social media site sources; cross confirming the business invoicing system customer identification data with other sources of customer identification data; and/or any other mechanism for verifying the business invoicing system customer identification data as discussed herein, and/or as known in the art at the time of filing, and/or as developed or becomes known after the time of filing.

[0073] In one embodiment, the business invoicing system customer identification data is stored in a partitioned business invoicing system customer identification data section of a memory.

[0074] As noted above, as used herein, the term "bill" includes, but is not limited to, an account statement or other recurring cost and financial transaction. Examples of bills include, but are not limited to: rent payments, utility payments, credit card payments, grocery store payments, vehicle costs, etc.

[0075] As also noted above, in contrast to the term "bill", herein the term "invoice" includes, but is not limited to costs associated with a specific product and/or service provided by a business and for which full payment is requested via the invoice document. A given invoice is therefore typically a non-recurring expense and/or is associated with specific products and/or services rendered, even though multiple, and even recurring identical, invoices can be generated by the same business for the same customer if multiple products and/or services, even the same products and/or services, are provided as payment due transactions.

[0076] As also noted above, herein the terms "payment" and/or "payment due" are used interchangeably and include any payment owed by a first party, i.e., a customer or payor party, to a second party, i.e., a business or payee party. Consequently, as used herein, the terms "payment" and/or "payment due" include both "bills" and "invoices."

[0077] As noted above, one side effect of the popularity of payment due reports and the bill payment features offered through some personal financial management and bill payment systems is that users of personal financial management and bill payment systems come to depend on the personal financial management and bill payment systems to inform them of all payments due and to be able to schedule all their payments through the personal financial management and bill payment systems. Consequently, any payments due not included in the payment due reports, and/or not capable of being paid through the bill payment feature of the personal financial management and bill payment systems, represent a potential problem, or at

least an inconvenience, to the users of the personal financial management and bill payment systems.

[0078] In short, as users of personal financial management and bill payment systems come to rely on the payment due reports and the bill payment features offered through some personal financial management and bill payment systems, they desire that the payment due reports provide a complete listing of their payments due, including bills and invoices, and/or that the bill payment features of currently available personal financial management and bill payment systems provide them the capability to pay all their payments due, including bills and invoices, through the personal financial management and bill payment systems, and/or that both bills and invoices be processed correctly using the personal financial management and bill payment systems.

[0079] This represents a significant and long standing technical problem in the financial management system, payment processing, and invoicing arts. This is because currently available personal financial management and bill payment systems process financial transaction data largely associated with recurring payments and/or revolving accounts, i.e., bills, such as credit card accounts, that can be identified through analysis of the users' financial transaction data history. In particular, currently available personal financial management and bill payment systems only identify recurring bills for inclusion in payment due reports, and/or other reminders of payments due, that are ultimately provided to the users of the personal financial management and bill payment systems. As a result, currently, one time only payments due, or non-revolving accounts, such as invoices, are almost never identified or included in the payment due reports generated by personal financial management and bill payment systems.

[0080] As a result of the situation described above, users of financial management and bill payment systems are currently not provided the full functionality they desire from their financial management and bill payment systems. Consequently, users of financial management and bill payment systems must currently deal with at least two classes of payments each month: those that can be identified and paid through their financial management and bill payment system, and those that must be identified and paid using some other mechanism. Clearly it is desirable to have all payments due, or as many as possible, fall into the category of payments that can be identified and paid through their financial management and bill payment system.

[0081] In addition, as a result of the situation described above, businesses generating invoices for their customers must currently rely on delivering their invoices to the customers through secondary, i.e., non-personal financial management and bill payment system,

mechanisms and/or processes such as e-mail or postal service. This, in turn, often leads to a situation where the invoicing business has trouble getting invoices in front of their customers, and/or getting their customers' attention, and/or integrating their invoices into the customers' payment routine, and/or getting paid. This situation exists today despite the fact that most businesses are business users of sophisticated business invoicing systems and/or business financial management systems that include business invoicing features.

[0082] Consequently, there is a long standing technical problem in the financial management system, payment processing, and invoicing arts in that businesses generating invoices are currently unable to access personal financial management and bill payment systems used by their customers and provide invoices to their customers through the personal financial management and bill payment systems used by their customers.

[0083] To address this issue, according to one embodiment, personal financial management and bill payment system user identification data associated with users of a personal financial management and bill payment system and business invoicing system customer identification data associated with customers of user businesses of a business invoicing system is obtained and analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system. In one embodiment, once a user of the personal financial management and bill payment system that is also a customer of a business user of the business invoicing system is identified, if the user of the personal financial management and bill payment system agrees to integrate invoices generated by the business user of the business invoicing system into the personal financial management and bill payment system, the business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the business user of the business invoicing system to the user of the personal financial management and bill payment system through the personal financial management and bill payment system.

[0084] To achieve this solution, the personal financial management and bill payment system user identification data in the partitioned personal financial management and bill payment system user identification data section of a memory and the business invoicing system customer identification data in the partitioned business invoicing system customer identification data section of a memory is accessed and the personal financial management and bill payment system user identification data and the business invoicing system customer identification data is analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system.

[0085] In various embodiments, analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system includes analyzing personal financial management and bill payment system user identification data user name data and business invoicing system customer identification data customer name data to determine if the personal financial management and bill payment system user identification data user name data and business invoicing system customer identification data customer name data match to a defined level of similarity.

[0086] In various embodiments, analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system includes analyzing personal financial management and bill payment system user identification data e-mail address data and business invoicing system customer identification data e-mail address data to determine if the personal financial management and bill payment system user identification data e-mail address data and business invoicing system customer identification data e-mail address data match to a defined level of similarity.

[0087] In various embodiments, analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system includes analyzing personal financial management and bill payment system user identification data postal address data and business invoicing system customer identification data postal address data to determine if the personal financial management and bill payment system user identification data postal address data and business invoicing system customer identification data postal address data match to a defined level of similarity.

[0088] In various embodiments, analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system includes analyzing personal financial management and bill payment system user identification data phone number data and business invoicing system customer identification data phone number data to determine

if the personal financial management and bill payment system user identification data phone number data and business invoicing system customer identification data phone number data match to a defined level of similarity.

[0089] In accordance with one embodiment, as a result of the analysis of the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system, a first user of the personal financial management and bill payment system that is also a first customer of a first business user of the business invoicing system is identified.

[0090] In accordance with one embodiment, the first user of the personal financial management and bill payment system is provided the opportunity to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system. In short, in one embodiment, the identified first user of the personal financial management and bill payment system that is also a first customer of a first business user of the business invoicing system is provided the opportunity to opt into the process of integrating invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system.

[0091] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, the first business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system.

[0092] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, the first business user of the business invoicing system is provided the capability and opportunity to have invoice data representing invoices generated by the first business user of the business invoicing system processed by the personal financial management and bill payment system in the same way, or in a similar way, as any other bill or payment due is processed by the personal financial management and bill payment system.

[0093] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, the first business user of the business invoicing system is provided the capability and opportunity to have business invoicing system invoice data representing invoices generated by the first business user of the business invoicing system be categorized using financial transaction categorizations used by the personal financial management and bill payment system in the same way, or in a similar way, as any other bill or payment due is processed by the personal financial management and bill payment system. In some of these embodiments, the first business user of the business invoicing system assigns a personal financial management and bill payment system financial transaction category to the invoices represented by the business invoicing system customer identification data automatically.

[0094] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, the first business user of the business invoicing system is provided the capability and opportunity to have business invoicing system invoice data representing invoices generated by the first business user of the business invoicing system included as a listed payment due in a payments due report and/or display section of the personal financial management and bill payment system.

[0095] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, the first business user of the business invoicing system is provided the capability and opportunity to have business invoicing system invoice data representing invoices generated by the first business user of the business invoicing system included as a listed payment due in a payments due report and/or display section of the personal financial management and bill payment system and the user of the personal financial management and bill payment system is provided the opportunity to pay the invoice using the same bill payment feature of the personal financial management and bill payment system used to pay any bill listed in the payments due section or display of the personal financial management and bill payment system.

[0096] Consequently, in one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business

user of the business invoicing system into the personal financial management and bill payment system, the first business user of the business invoicing system is provided the capability and opportunity to have business invoicing system invoice data representing invoices generated by the first business user of the business invoicing system fully integrated into the personal financial management and bill payment system and presented to the user of personal financial management and bill payment system in the same, or substantially similar, manner, as any other bill or payment due presented to the user of personal financial management and bill payment system.

[0097] FIG.1 is a high level functionality-based block diagram of a hardware and PRODUCTION ENVIRONMENT 100 for integrating business invoices into a personal financial management and bill payment system, in accordance with one embodiment.

[0098] As seen in FIG.1, in this specific illustrative example, PRODUCTION ENVIRONMENT 100 includes: PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM COMPUTING SYSTEM ENVIRONMENT 110, including PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111; BUSINESS INVOICING SYSTEM COMPUTING SYSTEM ENVIRONMENT 120, including BUSINESS INVOICING SYSTEM 121; and PROCESS COMPUTING SYSTEM ENVIRONMENT 130, including PROCESS COMPUTING SYSTEM 131.

[0099] As seen in FIG.1, in this specific illustrative example, PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 includes PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113, PAYMENT DUE DISPLAY DATA 115, and BILL PAYMENT SERVICE 117.

[0100] As seen in FIG.1, in this specific illustrative example, BUSINESS INVOICING SYSTEM 121 includes BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 123, including FIRST CUSTOMER IDENTIFICATION DATA 127.

[0101] As seen in FIG.1, in this specific illustrative example PROCESS COMPUTING SYSTEM 131 includes PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM ACCESS MODULE 133, obtained PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113, BUSINESS INVOICING SYSTEM ACCESS MODULE 135, obtained BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 123, including FIRST CUSTOMER IDENTIFICATION DATA 127, ANALYSIS MODULE 139, MATCH CONFIRMED DATA 141, and INVOICE INTEGRATION MODULE 143.

[0102] In one embodiment, PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM ACCESS MODULE 133 is used to access PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 and PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113 associated with users of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111.

[0103] In one embodiment, BUSINESS INVOICING SYSTEM ACCESS MODULE 135 is used to obtain access to BUSINESS INVOICING SYSTEM 121 and BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 123 generated through BUSINESS INVOICING SYSTEM 121. In one embodiment BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 123 represents customers of the business users of BUSINESS INVOICING SYSTEM 121.

[0104] In one embodiment, PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM ACCESS MODULE 133 is used to access PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113 and provide PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113 to ANALYSIS MODULE 139. In one embodiment, BUSINESS INVOICING SYSTEM ACCESS MODULE 135 is used to access FIRST BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 127, including FIRST CUSTOMER IDENTIFICATION DATA 127, and provide FIRST BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 127 including FIRST CUSTOMER IDENTIFICATION DATA 127, to ANALYSIS MODULE 139.

[0105] In one embodiment, ANALYSIS MODULE 139 is used to analyze PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113 and FIRST BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 127 to identify a first customer associated with FIRST BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 127 that is also is a user of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111.

[0106] In one embodiment, as a result of the analysis of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113 and FIRST BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 127, a first customer of a first business user of BUSINESS INVOICING SYSTEM 121, represented by FIRST CUSTOMER IDENTIFICATION DATA 127, that is also a user of PERSONAL

FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 is identified. Consequently, MATCH CONFIRMED DATA 141 is generated by ANALYSIS MODULE 139 and forwarded to INVOICE INTEGRATION MODULE 143.

[0107] In one embodiment, once a first customer of a first business user of BUSINESS INVOICING SYSTEM 121, represented by FIRST CUSTOMER IDENTIFICATION DATA 127, that is also a user of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 is identified and MATCH CONFIRMED DATA 141 is generated and forwarded to INVOICE INTEGRATION MODULE 143, the identified first user of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 is provided the opportunity to integrate invoices generated by the first business user of BUSINESS INVOICING SYSTEM 121 into PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111.

[0108] In one embodiment, once a first customer of a first business user of BUSINESS INVOICING SYSTEM 121, represented by FIRST CUSTOMER IDENTIFICATION DATA 127, that is also a user of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 is identified and MATCH CONFIRMED DATA 141 is generated and forwarded to INVOICE INTEGRATION MODULE 143, and the identified first user of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 agrees to integrate invoices generated by the first business user of BUSINESS INVOICING SYSTEM 121 into PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111, the first business user of BUSINESS INVOICING SYSTEM 121 is provided the capability to provide invoicing data (not shown), representing invoices generated by the first business user of BUSINESS INVOICING SYSTEM 121 to the first customer of FIRST CUSTOMER IDENTIFICATION DATA 127 through PAYMENT DUE DISPLAY DATA 115 of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 using INVOICE INTEGRATION MODULE 143.

[0109] In addition, in one embodiment, once a first customer of a first business user of BUSINESS INVOICING SYSTEM 121, represented by FIRST CUSTOMER IDENTIFICATION DATA 127, that is also a user of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 is identified and MATCH CONFIRMED DATA 141 is generated and forwarded to INVOICE INTEGRATION MODULE 143, and the identified first user of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 agrees to integrate invoices generated by the first business user of

BUSINESS INVOICING SYSTEM 121 into PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111, the first business user of BUSINESS INVOICING SYSTEM 121 is provided the capability to provide invoicing data (not shown), representing invoices generated by the first business user of BUSINESS INVOICING SYSTEM 121 to the first customer of FIRST CUSTOMER IDENTIFICATION DATA 127 through PAYMENT DUE DISPLAY DATA 115 of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 using INVOICE INTEGRATION MODULE 143 and to have a first customer user of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 pay an invoiced amount through BILL PAYMENT SERVICE 117 of PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111 using INVOICE INTEGRATION MODULE 143.

[0110] The disclosed embodiments provide an efficient, effective, and dynamically adaptable method and system to solve the long standing technical problem of the inability of businesses to access personal financial management and bill payment systems used by their customers and provide invoices to their customers through the personal financial management and bill payment systems used by their customers.

[0111] However, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system does not encompass, embody, or preclude other forms of innovation in the area of automated financial transaction bill payment processing and invoicing. In addition, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system is not related to any fundamental economic practice, fundamental data processing practice, mental steps, or pen and paper based solution. In fact, the disclosed embodiments are directed to providing solutions to the relatively new problems associated with the automatic processing and display of electronic financial transaction data obtained from multiple sources, making electronic bill payments, and the management and processing of large amounts of data, i.e., "big data." Consequently, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system is not directed to, does not encompass, and is not merely, an abstract idea or concept.

[0112] In addition, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system provides for significant improvements to the technical fields of electronic transaction data processing, financial

transaction categorization, information dissemination, data processing, data management, data filtering and mining, automatic electronic bill payment, and user experience.

[0113] In addition, the disclosed method and system for integrating business invoices into a personal financial management and bill payment system provides for the entry, processing, and dissemination, of only relevant portions of data; thereby eliminating unnecessary data analysis and correction before resources are allocated to processing, and/or correcting, faulty/irrelevant data, and/or the faulty/irrelevant data is further transmitted/distributed. Consequently, using the disclosed method and system for integrating business invoices into a personal financial management and bill payment system results in more efficient use of human and non-human resources, fewer processor cycles being utilized, reduced memory utilization, and less communications bandwidth being utilized to relay data to, and from, backend systems and client systems. As a result, computing systems are transformed into faster, more efficient, and more effective computing systems by implementing the method and system for integrating business invoices into a personal financial management and bill payment system.

PROCESS

[0114] In accordance with one embodiment, personal financial management and bill payment system user identification data associated with users of a personal financial management and bill payment system and business invoicing system customer identification data associated with customers of user businesses of a business invoicing system is obtained and analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system.

[0115] In one embodiment, once a user of the personal financial management and bill payment system that is also a customer of a business user of the business invoicing system is identified, if the user of the personal financial management and bill payment system agrees to integrate invoices generated by the business user of the business invoicing system into the personal financial management and bill payment system, the business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the business user of the business invoicing system to the user of the personal financial management and bill payment system through the personal financial management and bill payment system.

[0116] Consequently, disclosed herein is an efficient, effective, and dynamically adaptable technical solution to the long standing technical problem in the financial management system, payment processing, and invoicing arts of providing businesses access to personal financial management and bill payment systems used by their customers in order to provide invoices to their customers through the personal financial management and bill payment systems.

[0117] FIG. 2 is a flow chart representing one example of a process 200 for integrating business invoices into a personal financial management and bill payment system in accordance with one embodiment.

[0118] As seen in FIG. 2, process 200 for integrating business invoices into a personal financial management and bill payment system begins at ENTER OPERATION 201 and process flow proceeds to OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203.

[0119] In one embodiment, at OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203, one or more processors associated with one or more computing systems are utilized to obtain access to personal financial management and bill payment system user identification data associated with users of the personal financial management and bill payment system.

[0120] In one embodiment, a personal financial management and bill payment system is provided using one or more computing systems.

[0121] As noted above, herein, the term "personal financial management and bill payment system" includes, but is not limited to, the following: computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal financial transaction aggregation and/or processing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal financial management and budgeting systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage

based, persistence based, personal data management systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, personal accounting systems, services, packages, programs, modules, or applications; personal electronic tax preparation systems, services, packages, programs, modules, or applications; and various other personal electronic data management systems, services, packages, programs, modules, or applications, whether known at the time of filling, or as developed later.

[0122] As noted above, specific examples of personal financial management and bill payment systems include, but are not limited to the following: Mint™, available from Intuit, Inc. of Mountain View, California; Mint Online™, available from Intuit, Inc. of Mountain View, California; TurboTax™ available from Intuit, Inc. of Mountain View, California; TurboTax Online™ available from Intuit, Inc. of Mountain View, California; and/or various other software systems discussed herein, and/or known to those of skill in the art at the time of filing, and/or as developed after the time of filing.

[0123] In accordance with one embodiment, at OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203 one or more processors associated with one or more computing systems are utilized to obtain access to personal financial management and bill payment system user identification data associated with users of the personal financial management and bill payment system by obtaining access to user profile data associated with the users of the personal financial management and bill payment system.

[0124] In accordance with one embodiment, at OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203 one or more processors associated with one or more computing systems are utilized to obtain access to personal financial management and bill payment system user identification data associated with users of the personal financial management and bill payment system by obtaining access to user accounts data associated with the users of the personal financial management and bill payment system.

[0125] In various embodiments, the personal financial management and bill payment system user identification data of OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA

ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203 includes, but is not limited to, any one or more of the following: e-mail addresses associated with the users; postal/mailing addresses associated with the users; phone numbers associated with the users; and/or any other form of user identification data as discussed herein, and/or as known in the art at the time of filing, and/or as developed or becomes known after the time of filing.

[0126] In one embodiment, at OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203 the personal financial management and bill payment system user identification data is verified using one or more verification mechanisms and/or processes, such as but not limited to, contacting the users using the personal financial management and bill payment system user identification data; cross confirming the personal financial management and bill payment system user identification data with social media site sources; cross confirming the personal financial management and bill payment system user identification data with other sources of user identification data; and/or any other mechanism for verifying personal financial management and bill payment system user identification data as discussed herein, and/or as known in the art at the time of filing, and/or as developed or becomes known after the time of filing.

[0127] In one embodiment, the personal financial management and bill payment system user identification data obtained at OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203 is stored in a partitioned personal financial management and bill payment system user identification data section of a memory.

[0128] In one embodiment, once one or more processors associated with one or more computing systems are utilized to obtain access to personal financial management and bill payment system user identification data associated with users of the personal financial management and bill payment system at OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203, process flow proceeds to OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED

WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM OPERATION 205.

[0129] In one embodiment, at OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM OPERATION 205, one or more processors associated with one or more computing systems are utilized to obtain access to business invoicing system customer identification data generated through a business invoicing system.

[0130] In accordance with one embodiment, a business invoicing system is provided to business users of the business invoicing system.

[0131] As noted above, herein, the term "business invoicing system" includes, but is not limited to, any system through which a business can generate, and/or submit, and/or process invoices requesting payment for products and/or services provided by the business to customers of the business. Therefore, the term "business invoicing system" includes, but is not limited to, the following: computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business accounting and/or invoicing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business financial transaction aggregation and/or processing systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business financial management and budgeting systems, services, packages, programs, modules, or applications; computing system, desktop system, mobile system, and/or wearable device implemented, and/or online, and/or web-based, storage based, persistence based, business management systems, services, packages, programs, modules, or applications; business electronic tax preparation systems, services, packages, programs, modules, or applications; and various other business electronic data management systems, services, packages, programs, modules, or applications, whether known at the time of filling, or as developed later.

[0132] Specific examples of "business invoicing systems" include, but are not limited to, the following: QuickBooks™, available from Intuit, Inc. of Mountain View, California; QuickBooks Online™, available from Intuit, Inc. of Mountain View, California; QuickBooks Self-Employed™, available from Intuit, Inc. of Mountain View, California; TurboTax™

available from Intuit, Inc. of Mountain View, California; TurboTax Online™ available from Intuit, Inc. of Mountain View, California; and/or various other software systems discussed herein, and/or known to those of skill in the art at the time of filing, and/or as developed after the time of filing.

[0133] Currently, personal financial management and bill payment systems and business invoicing systems are typically distinct software systems operated and/or used by two distinct parties, e.g., a customer of a business and an owner of a business, respectively. Therefore, currently, personal financial management and bill payment systems and business invoicing systems typically operate in isolation from each other, even when they are offered by the same personal financial management and bill payment system and business invoicing system provider.

[0134] As a specific illustrative example, in one embodiment, the personal financial management and bill payment system used by a customer of a business, or other user, could be a personal financial transaction management system such as Mint™, available from Intuit, Inc. of Mountain View, California. In this specific illustrative example, a business invoicing system, used by a business user, could be a business invoicing system such as QuickBooks™, available from Intuit, Inc. of Mountain View, California. As seen in this specific illustrative example, both the personal financial management and bill payment system and the business invoicing system are offered by the same software system provider, i.e., in this specific case, Intuit, Inc. of Mountain View, California. Consequently, according to one embodiment, in this specific illustrative example, the personal financial management and bill payment system and the business invoicing system are provided the opportunity to cross pollinate and cross confirm supported data. This approach has several unique advantages.

[0135] In some embodiments, the business invoicing system of OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM OPERATION 205 is part of, and/or a feature of, a parent small business financial management system.

[0136] In accordance with one embodiment, one or more processors associated with one or more computing systems are utilized to obtain access to business invoicing system customer identification data generated through a business invoicing system at OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM

OPERATION 205 by obtaining access to business user account data and customer profile data associated with the customers of the business users of the business invoicing system.

[0137] In one embodiment, the business invoicing system customer identification data of OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM OPERATION 205 is associated with customers of user businesses of the business invoicing system and includes, but is not limited to, any one or more of the following: e-mail addresses associated with customers of user businesses of the business invoicing system; postal/mailing addresses associated with customers of user businesses of the business invoicing system; phone numbers associated with customers of user businesses of a business invoicing system; and/or any other form of customers of user businesses of a business invoicing system identification data as discussed herein, and/or as known in the art at the time of filing, and/or as developed or becomes known after the time of filing.

[0138] In one embodiment, at OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM OPERATION 205 the business invoicing system customer identification data is verified using one or more verification mechanisms and/or processes, such as but not limited to, contacting the business invoicing system customers using the business invoicing system customer identification data; cross confirming the business invoicing system customer identification data with social media site sources; cross confirming the business invoicing system customer identification data with other sources of customer identification data; and/or any other mechanism for verifying the business invoicing system customer identification data as discussed herein, and/or as known in the art at the time of filing, and/or as developed or becomes known after the time of filing.

[0139] In one embodiment, at OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM OPERATION 205 the business invoicing system customer identification data is stored in a partitioned business invoicing system customer identification data section of a memory.

[0140] In one embodiment, once one or more processors associated with one or more computing systems are utilized to obtain access to business invoicing system customer identification data generated through a business invoicing system at OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED

WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM OPERATION 205, process flow proceeds to ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207.

[0141] In one embodiment, at ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207, the personal financial management and bill payment system user identification data of OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 203 and the business invoicing system customer identification data of OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM OPERATION 205 is analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system.

[0142] As noted above, as used herein, the term “bill” includes, but is not limited to, an account statement or other recurring cost and financial transaction. Examples of bills include, but are not limited to: rent payments, utility payments, credit card payments, grocery store payments, vehicle costs, etc.

[0143] As also noted above, in contrast to the term “bill”, herein the term “invoice” includes, but is not limited to costs associated with a specific product and/or service provided by a business and for which full payment is requested via the invoice document. A given invoice is therefore typically a non-recurring expense and/or is associated with specific products and/or services rendered, even though multiple, and even recurring identical, invoices can be generated by the same business for the same customer if multiple products and/or services, even the same products and/or services, are provided as payment due transactions.

[0144] As also noted above, herein the terms "payment" and/or "payment due" are used interchangeably and include any payment owed by a first party, i.e., a customer or payor party, to a second party, i.e., a business or payee party. Consequently, as used herein, the terms "payment" and/or "payment due" include both "bills" and "invoices."

[0145] As noted above, one side effect of the popularity of payment due reports and the bill payment features offered through some personal financial management and bill payment systems is that users of personal financial management and bill payment systems come to depend on the personal financial management and bill payment systems to inform them of all payments due and to be able to schedule all their payments through the personal financial management and bill payment systems. Consequently, any payments due not included in the payment due reports, and/or not capable of being paid through the bill payment feature of the personal financial management and bill payment systems, represent a potential problem, or at least an inconvenience, to the users of the personal financial management and bill payment systems.

[0146] In short, as users of personal financial management and bill payment systems come to rely on the payment due reports and the bill payment features offered through some personal financial management and bill payment systems, they desire that the payment due reports provide a complete listing of their payments due, including bills and invoices, and/or that the bill payment features of currently available personal financial management and bill payment systems provide them the capability to pay all their payments due, including bills and invoices, through the personal financial management and bill payment systems, and/or that both bills and invoices be processed correctly using the personal financial management and bill payment systems.

[0147] This represents a significant and long standing technical problem in the financial management system, payment processing, and invoicing arts. This is because currently available personal financial management and bill payment systems process financial transaction data largely associated with recurring payments and/or revolving accounts, i.e., bills, such as credit card accounts, that can be identified through analysis of the users' financial transaction data history. In particular, currently available personal financial management and bill payment systems only identify recurring bills for inclusion in payment due reports, and/or other reminders of payments due, that are ultimately provided to the users of the personal financial management and bill payment systems. As a result, currently, one time only payments due, or

non-revolving accounts, such as invoices, are almost never identified or included in the payment due reports generated by personal financial management and bill payment systems.

[0148] As a result of the situation described above, users of financial management and bill payment systems are currently not provided the full functionality they desire from their financial management and bill payment systems. Consequently, users of financial management and bill payment systems must currently deal with at least two classes of payments each month: those that can be identified and paid through their financial management and bill payment system, and those that must be identified and paid using some other mechanism. Clearly it is desirable to have all payments due, or as many as possible, fall into the category of payments that can be identified and paid through their financial management and bill payment system.

[0149] In addition, as a result of the situation described above, businesses generating invoices for their customers must currently rely on delivering their invoices to the customers through secondary, i.e., non-personal financial management and bill payment system, mechanisms and/or processes such as e-mail or postal service. This, in turn, often leads to a situation where the invoicing business has trouble getting invoices in front of their customers, and/or getting their customers' attention, and/or integrating their invoices into the customers' payment routine, and/or getting paid. This situation exists today despite the fact that most businesses are business users of sophisticated business invoicing systems and/or business financial management systems that include business invoicing features.

[0150] Consequently, there is a long standing technical problem in the financial management system, payment processing, and invoicing arts in that businesses generating invoices are currently unable to access personal financial management and bill payment systems used by their customers and provide invoices to their customers through the personal financial management and bill payment systems used by their customers.

[0151] To address this issue, according to one embodiment, personal financial management and bill payment system user identification data associated with users of a personal financial management and bill payment system and business invoicing system customer identification data associated with customers of user businesses of a business invoicing system is obtained and analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system. In one embodiment, once a user of the personal financial management and bill payment system that is also a customer of a business user of the business invoicing system is identified, if the user of the personal financial management and bill payment system agrees to integrate invoices

generated by the business user of the business invoicing system into the personal financial management and bill payment system, the business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the business user of the business invoicing system to the user of the personal financial management and bill payment system through the personal financial management and bill payment system.

[0152] To achieve this solution, at ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207 the personal financial management and bill payment system user identification data in the partitioned personal financial management and bill payment system user identification data section of a memory and the business invoicing system customer identification data in the partitioned business invoicing system customer identification data section of a memory is accessed and the personal financial management and bill payment system user identification data and the business invoicing system customer identification data is analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system.

[0153] In various embodiments, analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system at ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207 includes analyzing personal financial management and bill payment system user identification data user name data and business invoicing system customer identification data customer name data to determine if the personal financial management and bill payment system user identification data user name data and business invoicing system customer identification data customer name data match to a defined level of similarity.

[0154] In various embodiments, analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system at ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207 includes analyzing personal financial management and bill payment system user identification data e-mail address data and business invoicing system customer identification data e-mail address data to determine if the personal financial management and bill payment system user identification data e-mail address data and business invoicing system customer identification data e-mail address data match to a defined level of similarity.

[0155] In various embodiments, analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system at ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207 includes analyzing personal financial management and bill payment system user identification data postal address data and business invoicing system customer identification data postal address data to determine if the personal financial management and bill payment system user identification data postal address data and business invoicing system customer identification data postal address data match to a defined level of similarity.

[0156] In various embodiments, analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system at ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER

IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207 includes analyzing personal financial management and bill payment system user identification data phone number data and business invoicing system customer identification data phone number data to determine if the personal financial management and bill payment system user identification data phone number data and business invoicing system customer identification data phone number data match to a defined level of similarity.

[0157] In one embodiment, once the personal financial management and bill payment system user identification data and the business invoicing system customer identification data is analyzed to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system at ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207, process flow proceeds to IDENTIFY A FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT IS A FIRST CUSTOMER OF A FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM OPERATION 209.

[0158] In one embodiment, at IDENTIFY A FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT IS A FIRST CUSTOMER OF A FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM OPERATION 209, a first user of the personal financial management and bill payment system that is also a first customer of a first business user of the business invoicing system is identified.

[0159] In accordance with one embodiment, as a result of the analysis of the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system at ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE

PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM OPERATION 207, a first user of the personal financial management and bill payment system that is also a first customer of a first business user of the business invoicing system is identified at IDENTIFY A FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT IS A FIRST CUSTOMER OF A FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM OPERATION 209.

[0160] In accordance with one embodiment, once a first user of the personal financial management and bill payment system that is also a first customer of a first business user of the business invoicing system is identified at IDENTIFY A FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT IS A FIRST CUSTOMER OF A FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM OPERATION 209, the first user of the personal financial management and bill payment system is provided the opportunity to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system.

[0161] In short, in one embodiment, the identified first user of the personal financial management and bill payment system that is also a first customer of a first business user of the business invoicing system is provided the opportunity to opt into the process of integrating invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system.

[0162] In one embodiment, once a first user of the personal financial management and bill payment system that is also a first customer of a first business user of the business invoicing system is identified at IDENTIFY A FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT IS A FIRST CUSTOMER OF A FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM OPERATION 209, process flow proceeds to PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 211.

[0163] In one embodiment, at PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA

REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 211, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system at IDENTIFY A FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT IS A FIRST CUSTOMER OF A FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM OPERATION 209, the first business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system.

[0164] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, then at PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 211 the first business user of the business invoicing system is provided the capability and opportunity to have invoice data representing invoices generated by the first business user of the business invoicing system processed by the personal financial management and bill payment system in the same way, or in a similar way, as any other bill or payment due is processed by the personal financial management and bill payment system.

[0165] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, then at PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING

SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 211 the first business user of the business invoicing system is provided the capability and opportunity to have business invoicing system invoice data representing invoices generated by the first business user of the business invoicing system be categorized using financial transaction categorizations used by the personal financial management and bill payment system in the same way, or in a similar way, as any other bill or payment due is processed by the personal financial management and bill payment system. In some of these embodiments, the first business user of the business invoicing system assigns a personal financial management and bill payment system financial transaction category to the invoices represented by the business invoicing system customer identification data automatically.

[0166] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, then at PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 211 the first business user of the business invoicing system is provided the capability and opportunity to have business invoicing system invoice data representing invoices generated by the first business user of the business invoicing system included as a listed payment due in a payments due report and/or display section of the personal financial management and bill payment system.

[0167] In accordance with one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, then at PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL FINANCIAL MANAGEMENT

AND BILL PAYMENT SYSTEM OPERATION 211 the first business user of the business invoicing system is provided the capability and opportunity to have business invoicing system invoice data representing invoices generated by the first business user of the business invoicing system included as a listed payment due in a payments due report and/or display section of the personal financial management and bill payment system and the user of the personal financial management and bill payment system is provided the opportunity to pay the invoice using the same bill payment feature of the personal financial management and bill payment system used to pay any bill listed in the payments due section or display of the personal financial management and bill payment system.

[0168] Consequently, in one embodiment, if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, then at PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 211 the first business user of the business invoicing system is provided the capability and opportunity to have business invoicing system invoice data representing invoices generated by the first business user of the business invoicing system fully integrated into the personal financial management and bill payment system and presented to the user of personal financial management and bill payment system in the same, or substantially similar, manner, as any other bill or payment due presented to the user of personal financial management and bill payment system.

[0169] In one embodiment, once the first business user of the business invoicing system is provided the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system, at PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL

FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM OPERATION 211, process flow proceeds to EXIT OPERATION 230.

[0170] In one embodiment, at EXIT OPERATION 230, process 200 for integrating business invoices into a personal financial management and bill payment system is exited to await new data.

[0171] The disclosed embodiments of a process 200 for integrating business invoices into a personal financial management and bill payment system provide an efficient, effective, and dynamically adaptable method and system to solve the long standing technical problem of the inability of businesses to access personal financial management and bill payment systems used by their customers and provide invoices to their customers through the personal financial management and bill payment systems used by their customers.

[0172] However, process 200 for integrating business invoices into a personal financial management and bill payment system does not encompass, embody, or preclude other forms of innovation in the area of automated financial transaction bill payment processing and invoicing. In addition, process 200 for integrating business invoices into a personal financial management and bill payment system is not related to any fundamental economic practice, fundamental data processing practice, mental steps, or pen and paper based solution. In fact, process 200 for integrating business invoices into a personal financial management and bill payment system is directed to providing a solution to the relatively new problems associated with the automatic processing and display of electronic financial transaction data obtained from multiple sources, making electronic bill payments, and the management and processing of large amounts of data, i.e., "big data." Consequently, process 200 for integrating business invoices into a personal financial management and bill payment system is not directed to, does not encompass, and is not merely, an abstract idea or concept.

[0173] In addition, process 200 for integrating business invoices into a personal financial management and bill payment system provides for significant improvements to the technical fields of electronic transaction data processing, financial transaction categorization, information dissemination, data processing, data management, data filtering and mining, automatic electronic bill payment, and user experience.

[0174] In addition, process 200 for integrating business invoices into a personal financial management and bill payment system provides for the entry, processing, and dissemination, of only relevant portions of data; thereby eliminating unnecessary data analysis and correction before resources are allocated to processing, and/or correcting, faulty/irrelevant data, and/or the

faulty/irrelevant data is further transmitted/distributed. Consequently, using process 200 for integrating business invoices into a personal financial management and bill payment system results in more efficient use of human and non-human resources, fewer processor cycles being utilized, reduced memory utilization, and less communications bandwidth being utilized to relay data to, and from, backend systems and client systems. As a result, computing systems are transformed into faster, more efficient, and more effective computing systems by implementing process 200 for integrating business invoices into a personal financial management and bill payment system.

[0175] The present invention has been described in particular detail with respect to specific possible embodiments. Those of skill in the art will appreciate that the invention may be practiced in other embodiments. For example, the nomenclature used for components, capitalization of component designations and terms, the attributes, data structures, or any other programming or structural aspect is not significant, mandatory, or limiting, and the mechanisms that implement the invention or its features can have various different names, formats, and/or protocols. Further, the system and/or functionality of the invention may be implemented via various combinations of software and hardware, as described, or entirely in hardware elements. Also, particular divisions of functionality between the various components described herein, are merely exemplary, and not mandatory or significant. Consequently, functions performed by a single component may, in other embodiments, be performed by multiple components, and functions performed by multiple components may, in other embodiments, be performed by a single component.

[0176] Some portions of the above description present the features of the present invention in terms of algorithms and symbolic representations of operations, or algorithm-like representations, of operations on information/data. These algorithmic and/or algorithm-like descriptions and representations are the mechanism and/or process used by those of skill in the art to most effectively and efficiently convey the substance of their work to others of skill in the art. These operations, while described functionally or logically, are understood to be implemented by computer programs and/or computing systems. Furthermore, it has also proven convenient at times to refer to these arrangements of operations as steps or modules or by functional names, without loss of generality.

[0177] Unless specifically stated otherwise, as would be apparent from the above discussion, it is appreciated that throughout the above description, discussions utilizing terms such as “monitoring,” “determining,” “defining,” “designating,” “obtaining,” “accessing,”

"analyzing," "obtaining," "identifying," "designating," categorizing," "receiving," "transmitting," "implementing," "associating," "aggregating," "initiating," "collecting," "creating," "transferring," "storing," "searching," "comparing," "providing," "transforming," "incorporating." "processing" etc., refer to the action and processes of a computing system or similar electronic device that manipulates and operates on data represented as physical (electronic) quantities within the computing system memories, resisters, caches or other information storage, transmission or display devices.

[0178] Certain aspects of the present invention include process steps or operations and instructions described herein in an algorithmic and/or algorithmic-like form. It should be noted that the process steps and/or operations and instructions of the present invention can be embodied in software, firmware, and/or hardware, and when embodied in software, can be downloaded to reside on and be operated from different platforms used by real time network operating systems.

[0179] The present invention also relates to an apparatus or system for performing the operations described herein. This apparatus or system may be specifically constructed for the required purposes by a computer program stored via a computer program product as defined herein that can be accessed by a computing system or other device to transform the computing system or other device into a specifically and specially programmed computing system or other device.

[0180] Those of skill in the art will readily recognize that the algorithms and operations presented herein are not inherently related to any particular computing system, computer architecture, computer or industry standard, or any other specific apparatus. It may prove convenient/efficient to construct or transform one or more specialized apparatuses to perform the required operations described herein. The required structure for a variety of these systems will be apparent to those of skill in the art, along with equivalent variations. In addition, the present invention is not described with reference to any particular programming language and it is appreciated that a variety of programming languages may be used to implement the teachings of the present invention as described herein, and any references to a specific language or languages are provided for illustrative purposes only and for enablement of the contemplated best mode of the invention at the time of filing.

[0181] The present invention is well suited to a wide variety of computer network systems operating over numerous topologies. Within this field, the configuration and management of large networks comprise storage devices and computers that are

communicatively coupled to similar and/or dissimilar computers and storage devices over a private network, a LAN, a WAN, a private network, or a public network, such as the Internet.

[0182] It should also be noted that the language used in the specification has been principally selected for readability, clarity, and instructional purposes, and may not have been selected to delineate or circumscribe the inventive subject matter. Accordingly, the disclosure of the present invention is intended to be illustrative, but not limiting, of the scope of the invention, which is set forth in the claims below.

[0183] In addition, the operations shown in the FIG.s are identified using a particular nomenclature for ease of description and understanding, but other nomenclature is often used in the art to identify equivalent operations.

[0184] In the discussion above, certain aspects of one embodiment include process steps and/or operations and/or instructions described herein for illustrative purposes in a particular order and/or grouping. However, the particular order and/or grouping shown and discussed herein is illustrative only and not limiting. Those of skill in the art will recognize that other orders and/or grouping of the process steps and/or operations and/or instructions are possible and, in some embodiments, one or more of the process steps and/or operations and/or instructions discussed above can be combined and/or deleted. In addition, portions of one or more of the process steps and/or operations and/or instructions can be re-grouped as portions of one or more other of the process steps and/or operations and/or instructions discussed herein. Consequently, the particular order and/or grouping of the process steps and/or operations and/or instructions discussed herein does not limit the scope of the invention as claimed below.

[0185] Therefore, numerous variations, whether explicitly provided for by the specification or implied by the specification or not, may be implemented by one of skill in the art in view of this disclosure.

CLAIMS

What is claimed is:

1. A method for integrating business invoices into a personal financial management and bill payment system, the method comprising:

obtaining access to personal financial management and bill payment system user identification data associated with users of a personal financial management and bill payment system, the personal financial management and bill payment system user identification data being stored in a partitioned personal financial management and bill payment system user identification data section of a memory;

obtaining access to business invoicing system customer identification data generated through a business invoicing system, the business invoicing system customer identification data being associated with customers of user businesses of a business invoicing system, the business invoicing system customer identification data being stored in a partitioned business invoicing system customer identification data section of a memory;

accessing the personal financial management and bill payment system user identification data in the partitioned personal financial management and bill payment system user identification data section of a memory and the business invoicing system customer identification data in the partitioned business invoicing system customer identification data section of a memory;

analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system;

identifying a first user of the personal financial management and bill payment system that is a first customer of a first business user of the business invoicing system;

providing the first user of the personal financial management and bill payment system the opportunity to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system; and

if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, providing the first business user of the

business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system.

2. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein the personal financial management and bill payment system is a financial transaction management and billing system through which a user of the financial transaction management and billing system is provided the capability to categorize financial transactions and pay the user's bills.

3. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein obtaining access to personal financial management and bill payment system user identification data includes obtaining access to user profile data associated with the users of the personal financial management and bill payment system.

4. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein obtaining access to personal financial management and bill payment system user identification data includes obtaining access to user accounts data associated with the users of the personal financial management and bill payment system.

5. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein the business invoicing system is part of a small business financial management and bill payment system.

6. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein obtaining access to business invoicing system customer identification data generated through a business invoicing system includes obtaining access to business user accounts data associated with business users of the business invoicing system.

7. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein the personal financial management and bill payment system user identification data includes one or more of:

user name data representing names of users of the personal financial management and bill payment system;

user e-mail address data representing e-mail addresses associated with the users of the personal financial management and bill payment system;

user postal address data representing postal addresses associated with the users of the personal financial management and bill payment system;

user phone number data representing the phone numbers of users of the personal financial management and bill payment system; and

user account data representing one or more financial accounts associated with the users of the personal financial management and bill payment system.

8. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein the personal financial management and bill payment system user identification data is verified.

9. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein the business invoicing system customer identification data includes one or more of:

customer name data representing the names of customers of business users of the business invoicing system;

customer e-mail address data representing e-mail addresses associated with customers of business users of the business invoicing system;

customer postal address data representing postal addresses associated with customers of business users of the business invoicing system;

customer phone number data representing the phone numbers of customers of business users of the business invoicing system; and

customer account data representing one or more financial accounts associated with customers of business users of the business invoicing system.

10. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1, wherein the business invoicing system customer identification data is verified.

11. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1 wherein providing the first business user of the business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system includes assigning a personal financial management and bill payment system financial transaction category to the invoices represented by the business invoicing system customer identification data.

12. The method for integrating business invoices into a personal financial management and bill payment system of Claim 1 wherein providing the first business user of the business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system includes providing the invoice data representing invoices generated by first business user to the first user of the personal financial management and bill payment system as a line item in a payment listing generated through the personal financial management and bill payment system.

13. A system for integrating business invoices into a personal financial management and bill payment system comprising:

a personal financial management and bill payment system;

a business invoicing system;

a personal financial management and bill payment system access module for obtaining access to personal financial management and bill payment system user identification data associated with users of a personal financial management and bill payment system;

a business invoicing system customer identification data access module for obtaining access to business invoicing system customer identification data generated through the business

invoicing system, the business invoicing system customer identification data being associated with customers of user businesses of a business invoicing system;

an analysis module for analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system; and

an invoice integration module wherein if a first user of the personal financial management and bill payment system that is a first customer of a first business user of the business invoicing system is identified, and the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, the invoice integration module provides the first business user of the business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system.

14. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein the personal financial management and bill payment system is a financial transaction management and billing system through which a user of the financial transaction management and billing system is provided the capability to categorize financial transactions and pay the user's bills.

15. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein obtaining access to personal financial management and bill payment system user identification data includes obtaining access to user profile data associated with the users of the personal financial management and bill payment system.

16. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein obtaining access to personal financial management and bill payment system user identification data includes obtaining access to user accounts data associated with the users of the personal financial management and bill payment system.

17. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein the business invoicing system is part of a small business financial management and bill payment system.

18. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein obtaining access to business invoicing system customer identification data generated through a business invoicing system includes obtaining access to business user accounts data associated with business users of the business invoicing system.

19. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein the personal financial management and bill payment system user identification data includes one or more of:

user name data representing names of users of the personal financial management and bill payment system;

user e-mail address data representing e-mail addresses associated with the users of the personal financial management and bill payment system;

user postal address data representing postal addresses associated with the users of the personal financial management and bill payment system;

user phone number data representing the phone numbers of users of the personal financial management and bill payment system; and

user account data representing one or more financial accounts associated with the users of the personal financial management and bill payment system.

20. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein the personal financial management and bill payment system user identification data is verified.

21. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein the business invoicing system customer identification data includes one or more of:

customer name data representing the names of customers of business users of the business invoicing system;

customer e-mail address data representing e-mail addresses associated with customers of business users of the business invoicing system;

customer postal address data representing postal addresses associated with customers of business users of the business invoicing system;

customer phone number data representing the phone numbers of customers of business users of the business invoicing system; and

customer account data representing one or more financial accounts associated with customers of business users of the business invoicing system.

22. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13, wherein the business invoicing system customer identification data is verified.

23. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13 wherein providing the first business user of the business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system includes assigning a personal financial management and bill payment system financial transaction category to the invoices represented by the business invoicing system customer identification data.

24. The system for integrating business invoices into a personal financial management and bill payment system of Claim 13 wherein providing the first business user of the business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system includes providing the invoice data representing invoices generated by first business user to the first user of the personal financial management and bill payment system as a line item in a payment listing generated through the personal financial management and bill payment system.

25. A computer program product for integrating business invoices into a personal financial management and bill payment system, the computer program product including machine readable instructions for implementing a process for integrating business invoices into a personal financial management and bill payment system, the process for integrating business invoices into a personal financial management and bill payment system comprising:

obtaining access to personal financial management and bill payment system user identification data associated with users of a personal financial management and bill payment system, the personal financial management and bill payment system user identification data being stored in a partitioned personal financial management and bill payment system user identification data section of a memory;

obtaining access to business invoicing system customer identification data generated through a business invoicing system, the business invoicing system customer identification data being associated with customers of user businesses of a business invoicing system, the business invoicing system customer identification data being stored in a partitioned business invoicing system customer identification data section of a memory;

accessing the personal financial management and bill payment system user identification data in the partitioned personal financial management and bill payment system user identification data section of a memory and the business invoicing system customer identification data in the partitioned business invoicing system customer identification data section of a memory;

analyzing the personal financial management and bill payment system user identification data and the business invoicing system customer identification data to identify users of the personal financial management and bill payment system that are customers of business users of the business invoicing system;

identifying a first user of the personal financial management and bill payment system that is a first customer of a first business user of the business invoicing system;

providing the first user of the personal financial management and bill payment system the opportunity to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system; and

if the first user of the personal financial management and bill payment system agrees to integrate invoices generated by the first business user of the business invoicing system into the personal financial management and bill payment system, providing the first business user of the

business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system.

26. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein the personal financial management and bill payment system is a financial transaction management and billing system through which a user of the financial transaction management and billing system is provided the capability to categorize financial transactions and pay the user's bills.

27. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein obtaining access to personal financial management and bill payment system user identification data includes obtaining access to user profile data associated with the users of the personal financial management and bill payment system.

28. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein obtaining access to personal financial management and bill payment system user identification data includes obtaining access to user accounts data associated with the users of the personal financial management and bill payment system.

29. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein the business invoicing system is part of a small business financial management and bill payment system.

30. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein obtaining access to business invoicing system customer identification data generated through a business invoicing system includes obtaining access to business user accounts data associated with business users of the business invoicing system.

31. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein the personal financial management and bill payment system user identification data includes one or more of:

user name data representing names of users of the personal financial management and bill payment system;

user e-mail address data representing e-mail addresses associated with the users of the personal financial management and bill payment system;

user postal address data representing postal addresses associated with the users of the personal financial management and bill payment system;

user phone number data representing the phone numbers of users of the personal financial management and bill payment system; and

user account data representing one or more financial accounts associated with the users of the personal financial management and bill payment system.

32. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein the personal financial management and bill payment system user identification data is verified.

33. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein the business invoicing system customer identification data includes one or more of:

customer name data representing the names of customers of business users of the business invoicing system;

customer e-mail address data representing e-mail addresses associated with customers of business users of the business invoicing system;

customer postal address data representing postal addresses associated with customers of business users of the business invoicing system;

customer phone number data representing the phone numbers of customers of business users of the business invoicing system; and

customer account data representing one or more financial accounts associated with customers of business users of the business invoicing system.

34. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25, wherein the business invoicing system customer identification data is verified.

35. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25 wherein providing the first business user of the business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system includes assigning a personal financial management and bill payment system financial transaction category to the invoices represented by the business invoicing system customer identification data.

36. The computer program product for integrating business invoices into a personal financial management and bill payment system of Claim 25 wherein providing the first business user of the business invoicing system the capability to provide invoice data representing invoices generated by the first business user of the business invoicing system to the first user of the personal financial management and bill payment system through the personal financial management and bill payment system includes providing the invoice data representing invoices generated by first business user to the first user of the personal financial management and bill payment system as a line item in a payment listing generated through the personal financial management and bill payment system.

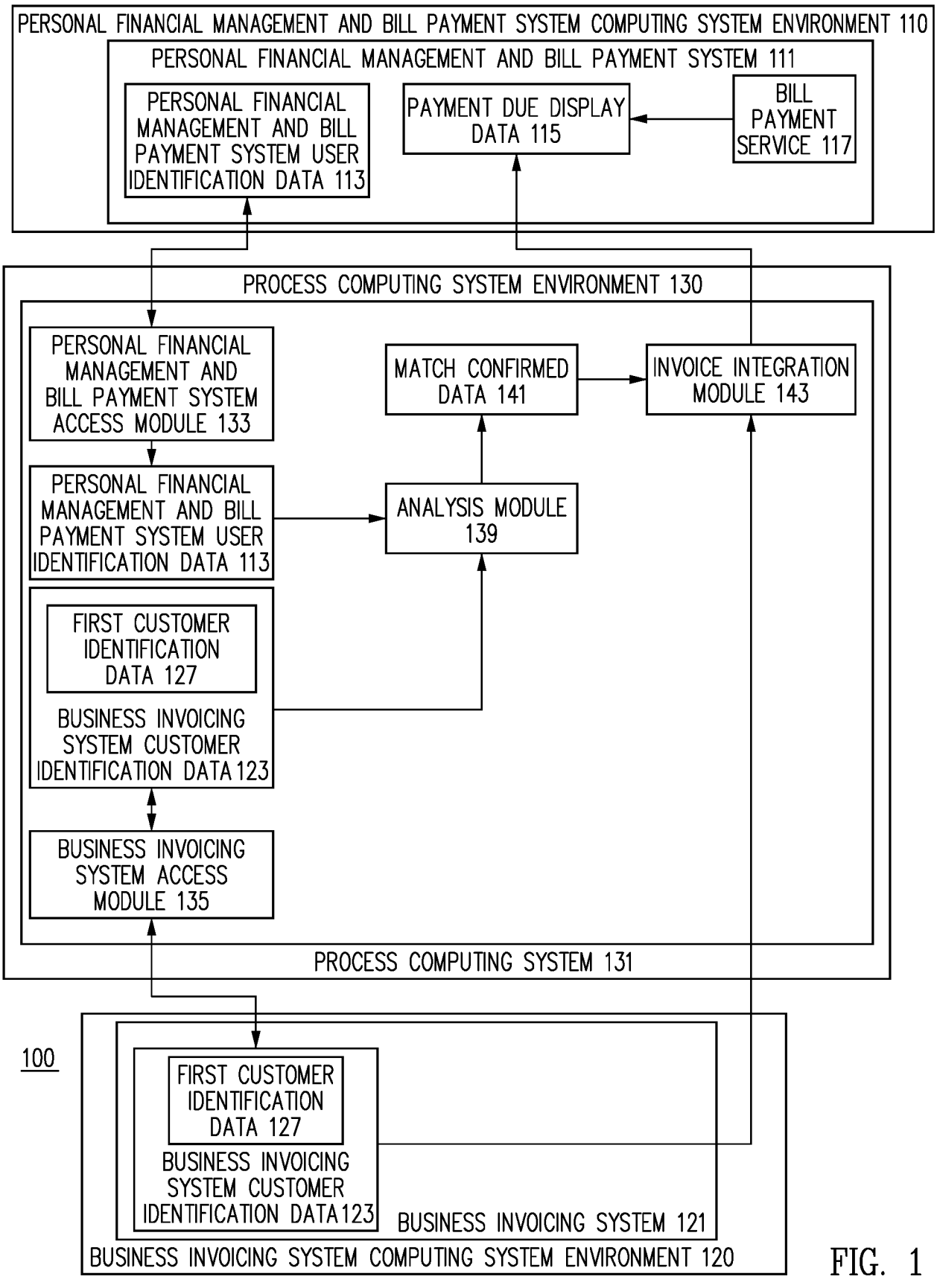

PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM COMPUTING SYSTEM ENVIRONMENT 110
PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM 111
PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113
PAYMENT DUE DISPLAY DATA 115
BILL PAYMENT SERVICE 117
PROCESS COMPUTING SYSTEM ENVIRONMENT 130
PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM ACCESS MODULE 133
MATCH CONFIRMED DATA 141
INVOICE INTEGRATION MODULE 143
PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA 113
ANALYSIS MODULE 139
FIRST CUSTOMER IDENTIFICATION DATA 127
BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 123
BUSINESS INVOICING SYSTEM ACCESS MODULE 135
PROCESS COMPUTING SYSTEM 131
100
FIRST CUSTOMER IDENTIFICATION DATA 127
BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA 123
BUSINESS INVOICING SYSTEM 121
BUSINESS INVOICING SYSTEM COMPUTING SYSTEM ENVIRONMENT 120

FIG. 1

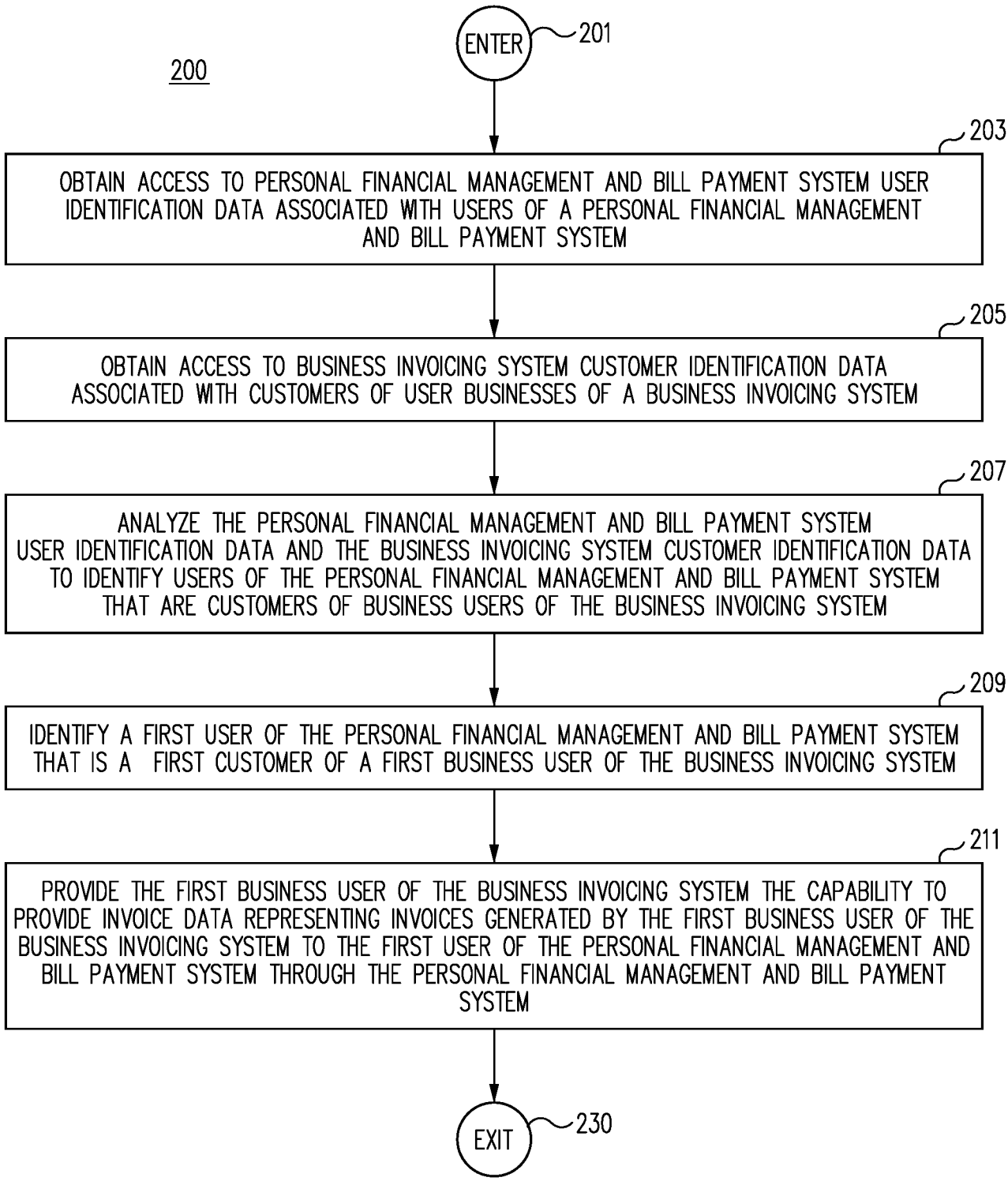

200
ENTER
201
203
OBTAIN ACCESS TO PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA ASSOCIATED WITH USERS OF A PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM
205
OBTAIN ACCESS TO BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA ASSOCIATED WITH CUSTOMERS OF USER BUSINESSES OF A BUSINESS INVOICING SYSTEM
207
ANALYZE THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM USER IDENTIFICATION DATA AND THE BUSINESS INVOICING SYSTEM CUSTOMER IDENTIFICATION DATA TO IDENTIFY USERS OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT ARE CUSTOMERS OF BUSINESS USERS OF THE BUSINESS INVOICING SYSTEM
209
IDENTIFY A FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THAT IS A FIRST CUSTOMER OF A FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM
211
PROVIDE THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM THE CAPABILITY TO PROVIDE INVOICE DATA REPRESENTING INVOICES GENERATED BY THE FIRST BUSINESS USER OF THE BUSINESS INVOICING SYSTEM TO THE FIRST USER OF THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM THROUGH THE PERSONAL FINANCIAL MANAGEMENT AND BILL PAYMENT SYSTEM
EXIT
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FIG. 2

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2017/022825

A. CLASSIFICATION OF SUBJECT MATTER

G06Q 40/00(2006.01)i, G06Q 10/10(2012.01)i

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)
G06Q 40/00; G06Q 30/04; G06F 15/16; G06F 17/60; G06F 17/30; G06Q 20/14; G06Q 10/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: invoice, integrating, personal financial, bill payment, access

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003-0216990 A1 (BARRY STAR) 20 November 2003 See paragraphs [0009], [0018], [0027], [0030], claims 1-3, 9, 13 and figures 1-2, 4.	1-36
Y	US 9286332 B1 (INTUIT INC.) 15 March 2016 See column 5, line 58-column 6, line 17, column 17, lines 20-24 and claims 1-2, 6.	1-36
Y	US 8799157 B1 (JEFFREY S. WEISMAN et al.) 05 August 2014 See claims 1, 7-9 and figures 2-3.	2,11,14,23,26,35
A	US 2012-0303522 A1 (JASON MAY et al.) 29 November 2012 See claims 1-4, 8-10 and figures 1-3, 5.	1-36
A	US 2002-0013850 A1 (MARGARET, C. MITCHELL et al.) 31 January 2002 See claims 1, 4, 11-16 and figures 1-3.	1-36

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* 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	Date of mailing of the international search report
28 June 2017 (28.06.2017)	**28 June 2017 (28.06.2017)**

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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