



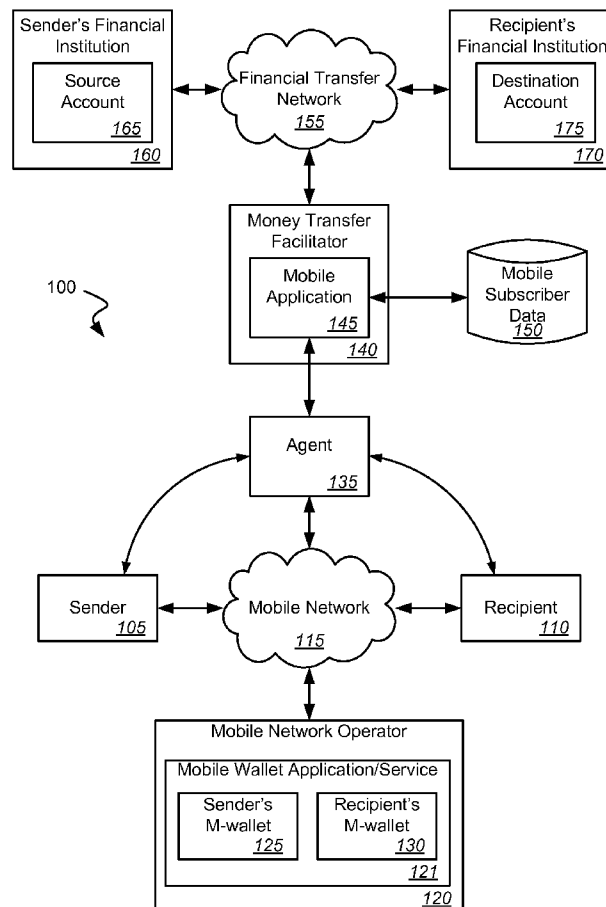
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(19) **United States**(12) **Patent Application Publication**
Dill et al.(10) **Pub. No.: US 2009/0265272 A1**(43) **Pub. Date: Oct. 22, 2009**(54) **MONEY TRANSFERS UTILIZING A UNIQUE
RECEIVER IDENTIFIER****Related U.S. Application Data**(63) Continuation-in-part of application No. 12/146,650,
filed on Jun. 26, 2008.(60) Provisional application No. 60/980,675, filed on Oct.
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G06Q 40/00 (2006.01)(52) **U.S. Cl.** **705/41; 705/44; 705/35; 705/43**(57) **ABSTRACT**

Methods, systems, and machine-readable media are disclosed for financial transfers utilizing a unique identifier to facilitate flexible payment options for the transaction. According to one embodiment, a pull transaction model can be implemented. According to such embodiments, a money transfer can be initiated in a conventional manner via an agent of a money transfer facilitator. The sender of the transfer can provide an identifier for the transaction to the recipient. The recipient can in turn use the identifier, in combination with functionality of a mobile wallet application of a mobile device to request or "pull" the money transfer to an account associated with the mobile wallet application. In this way, the recipient can receive the transfer to the mobile wallet account even if the sender does not know that such a delivery is available.

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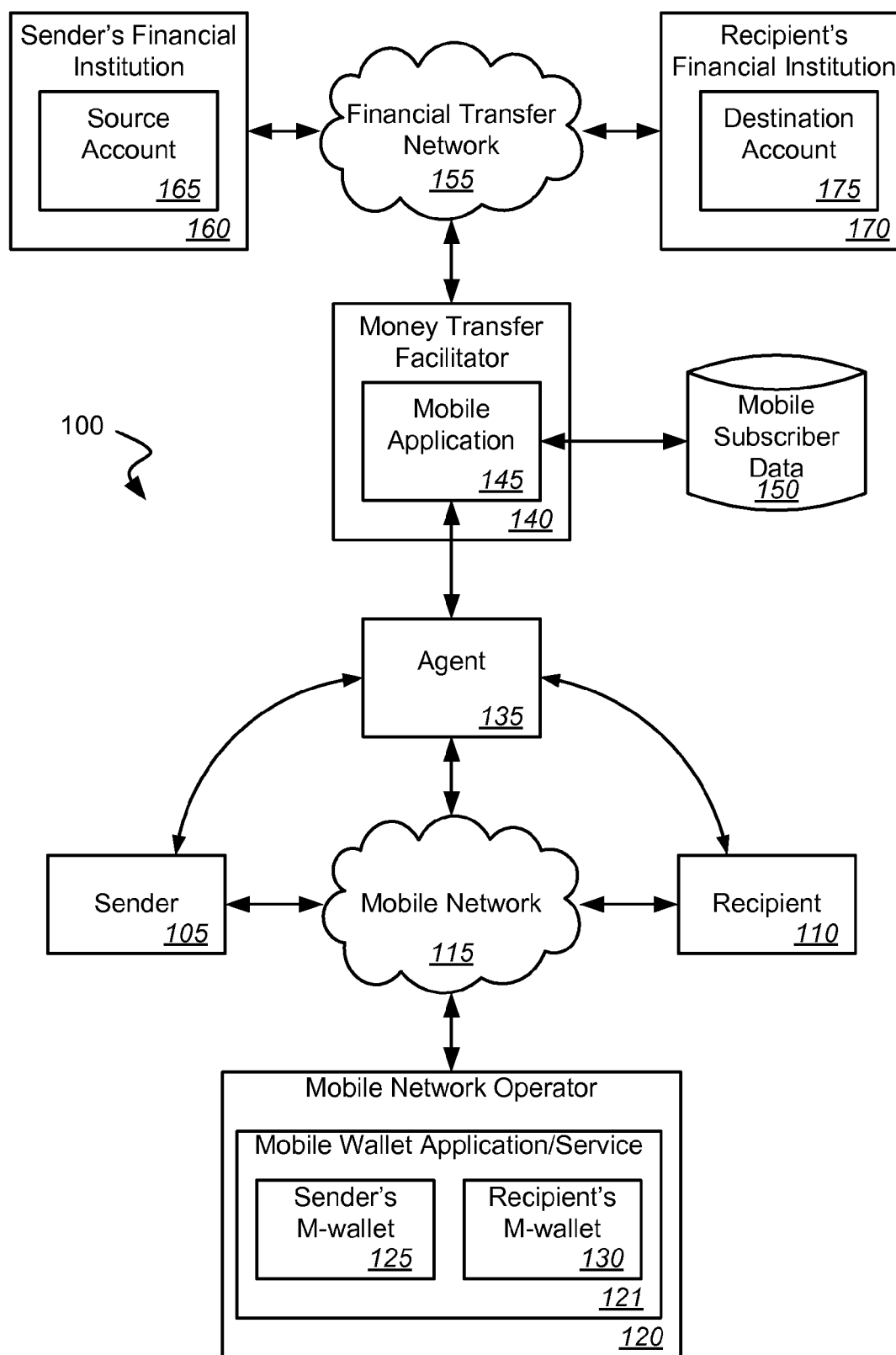


FIG. 1

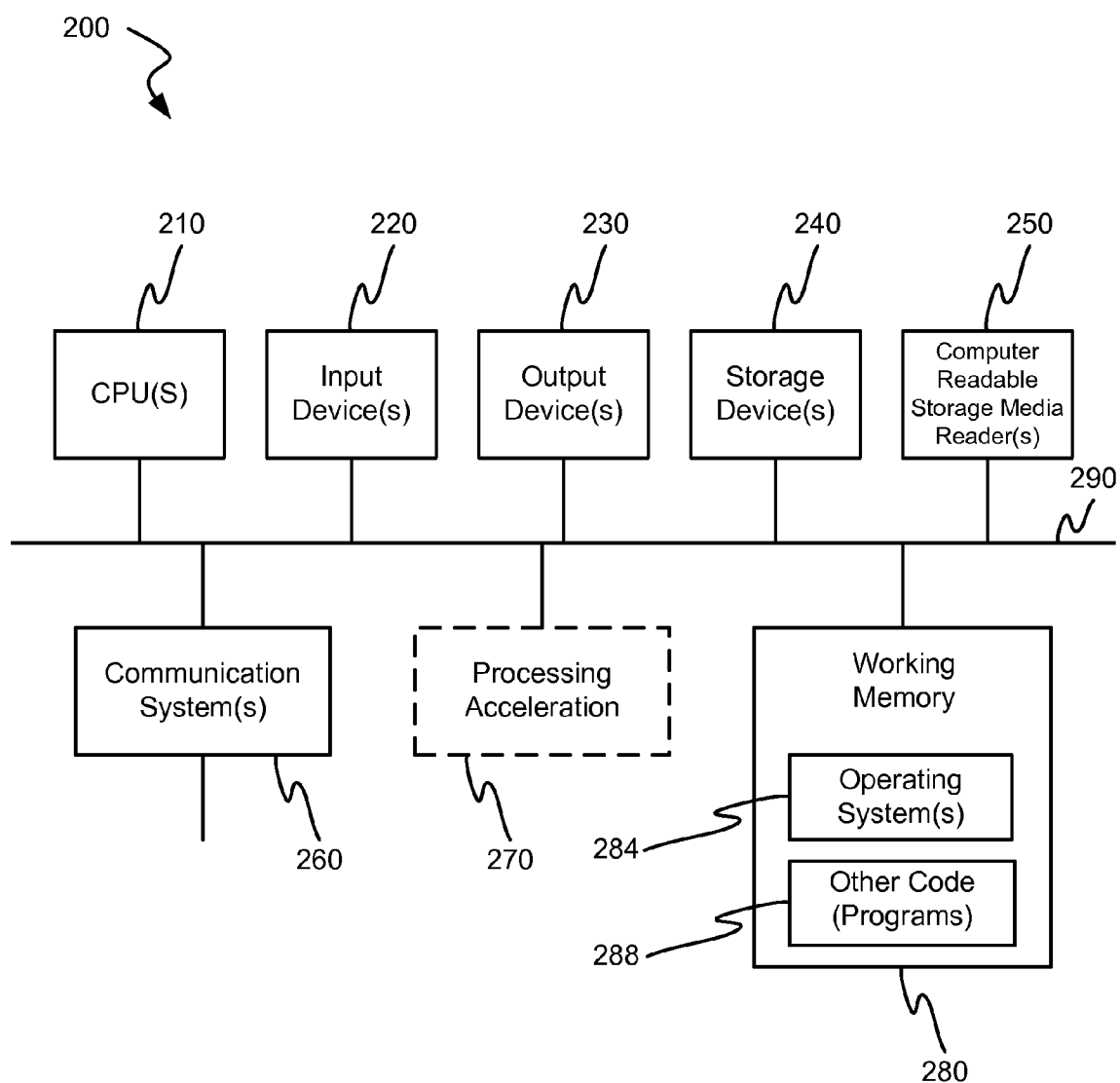


FIG. 2

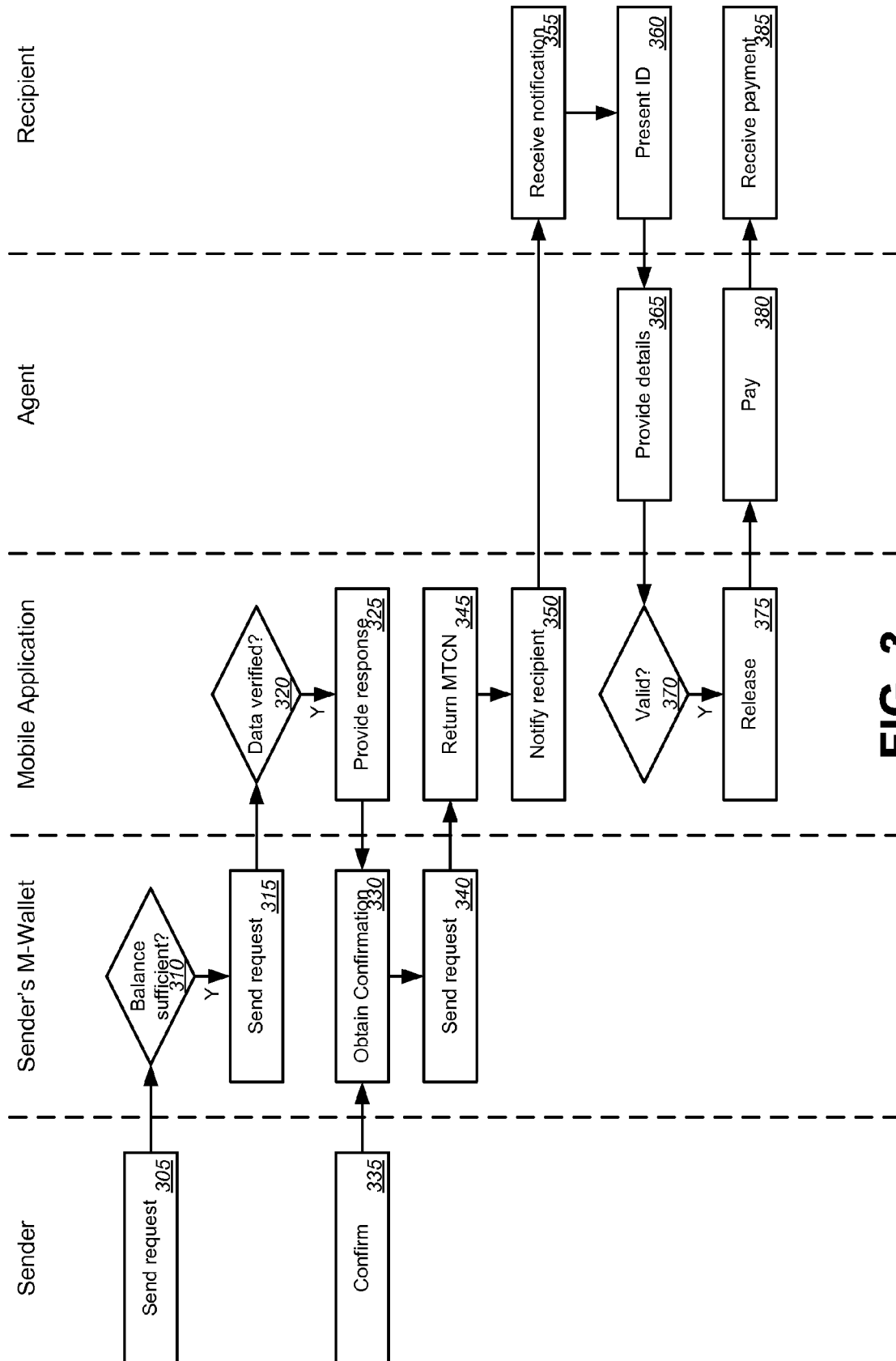


FIG. 3

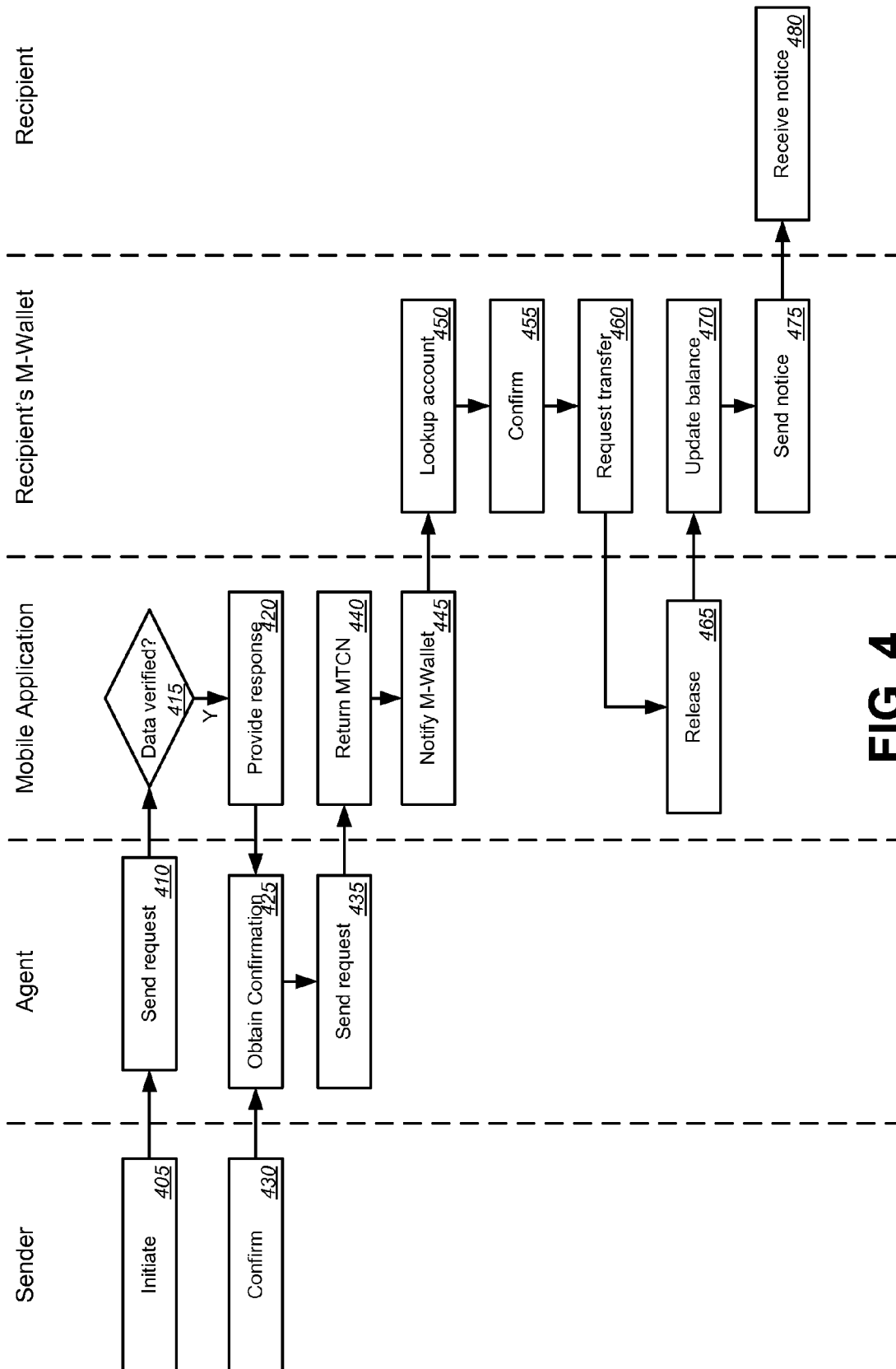


FIG. 4

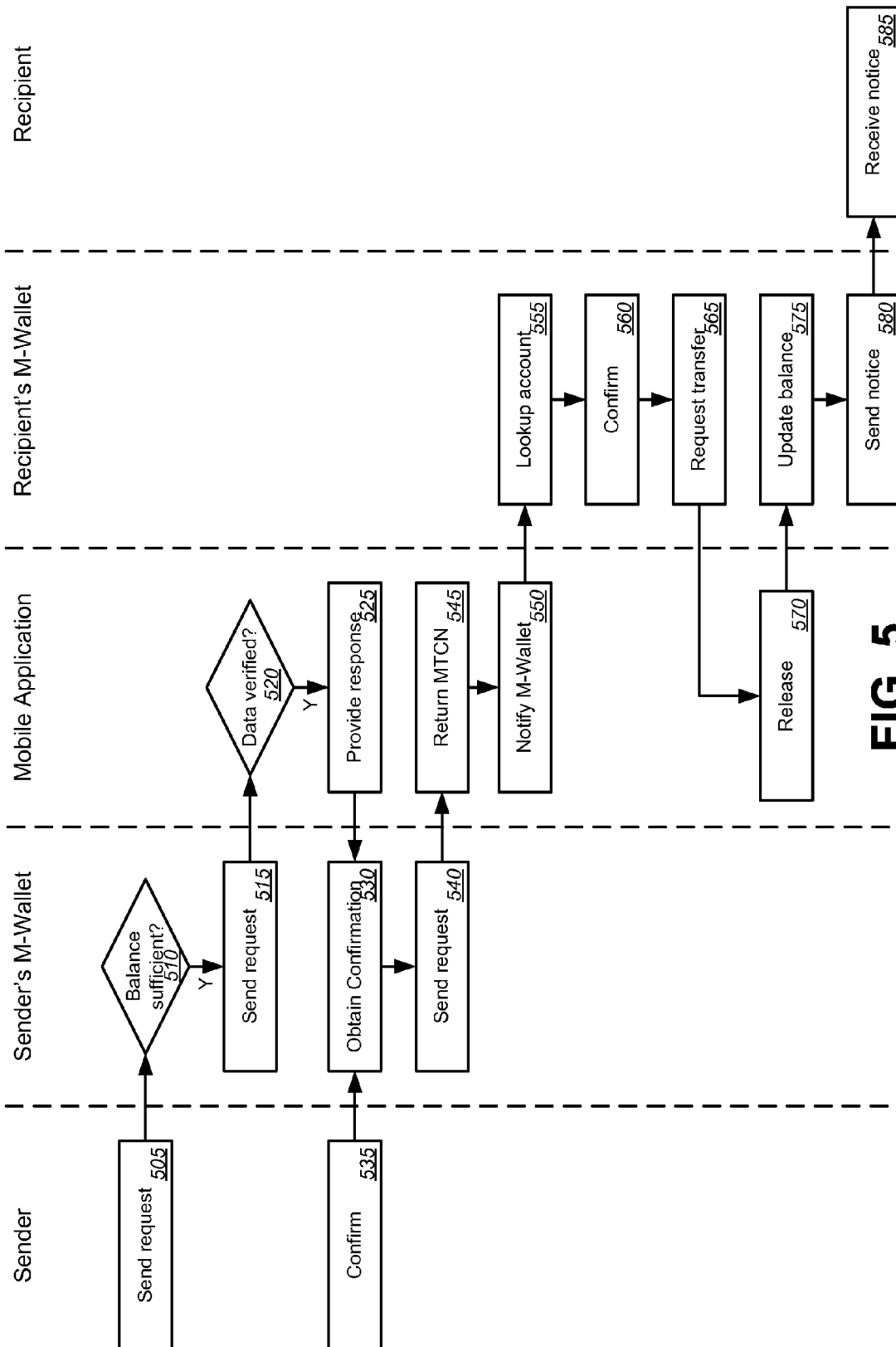


FIG. 5

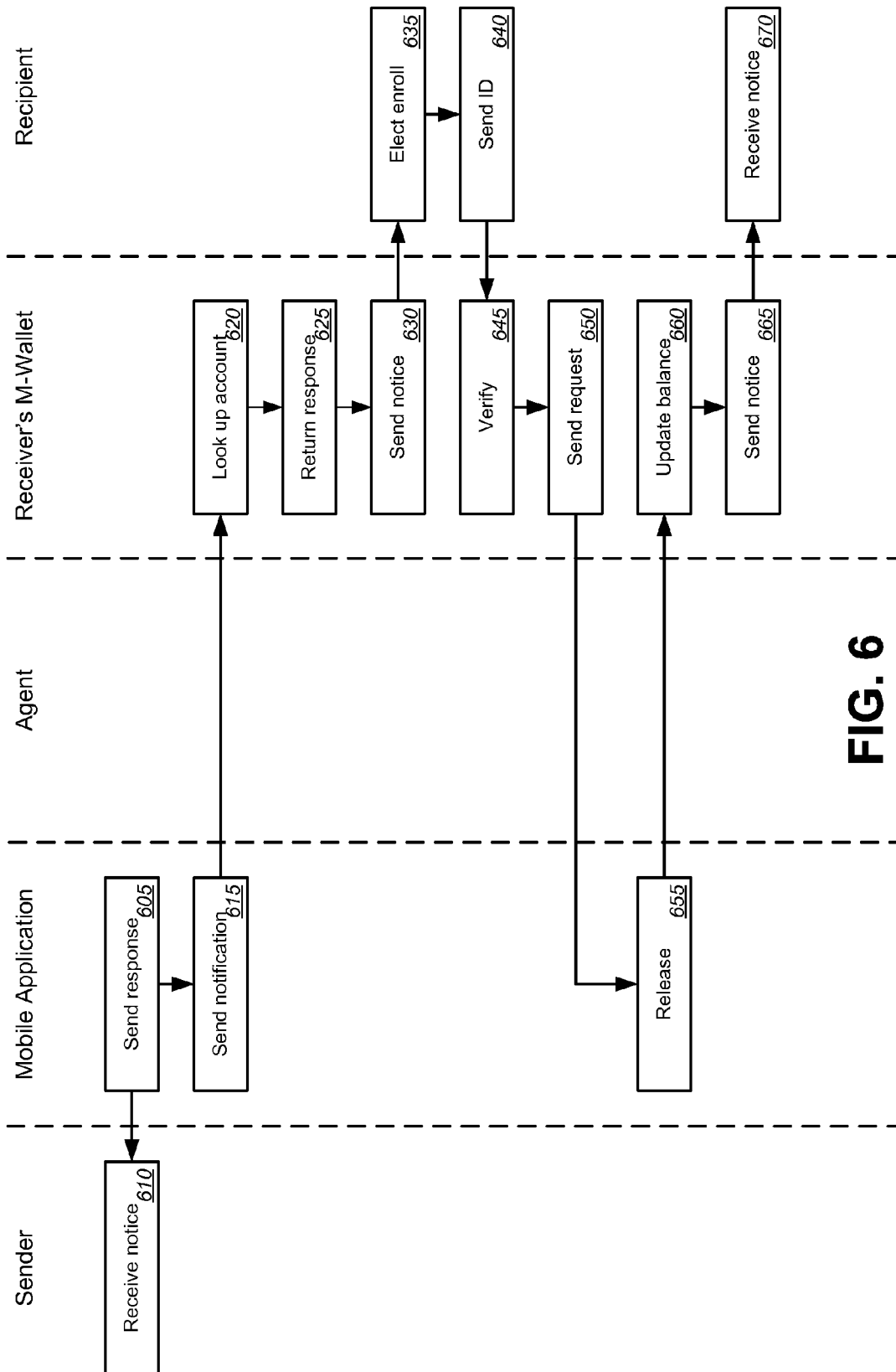


FIG. 6

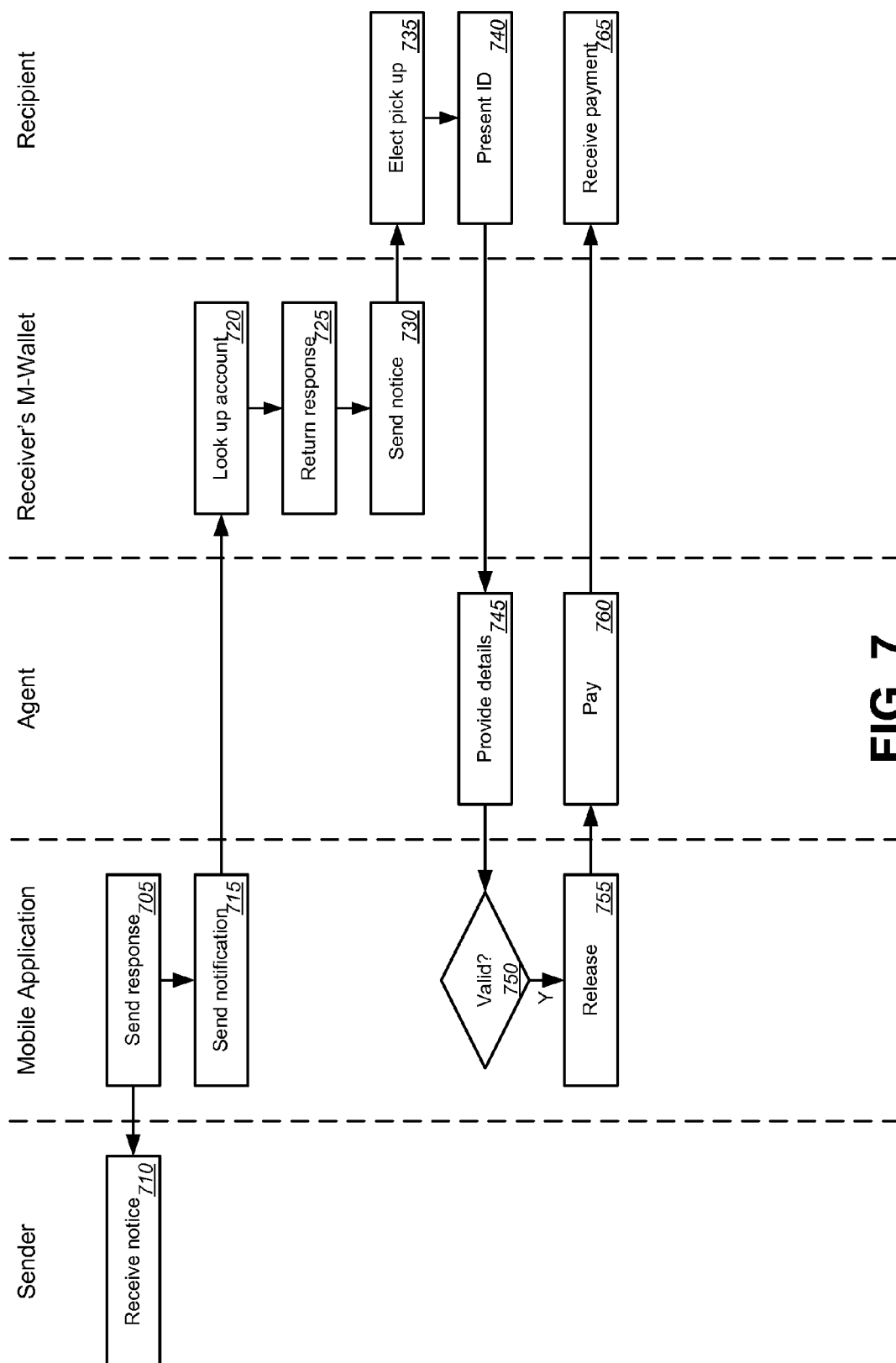


FIG. 7

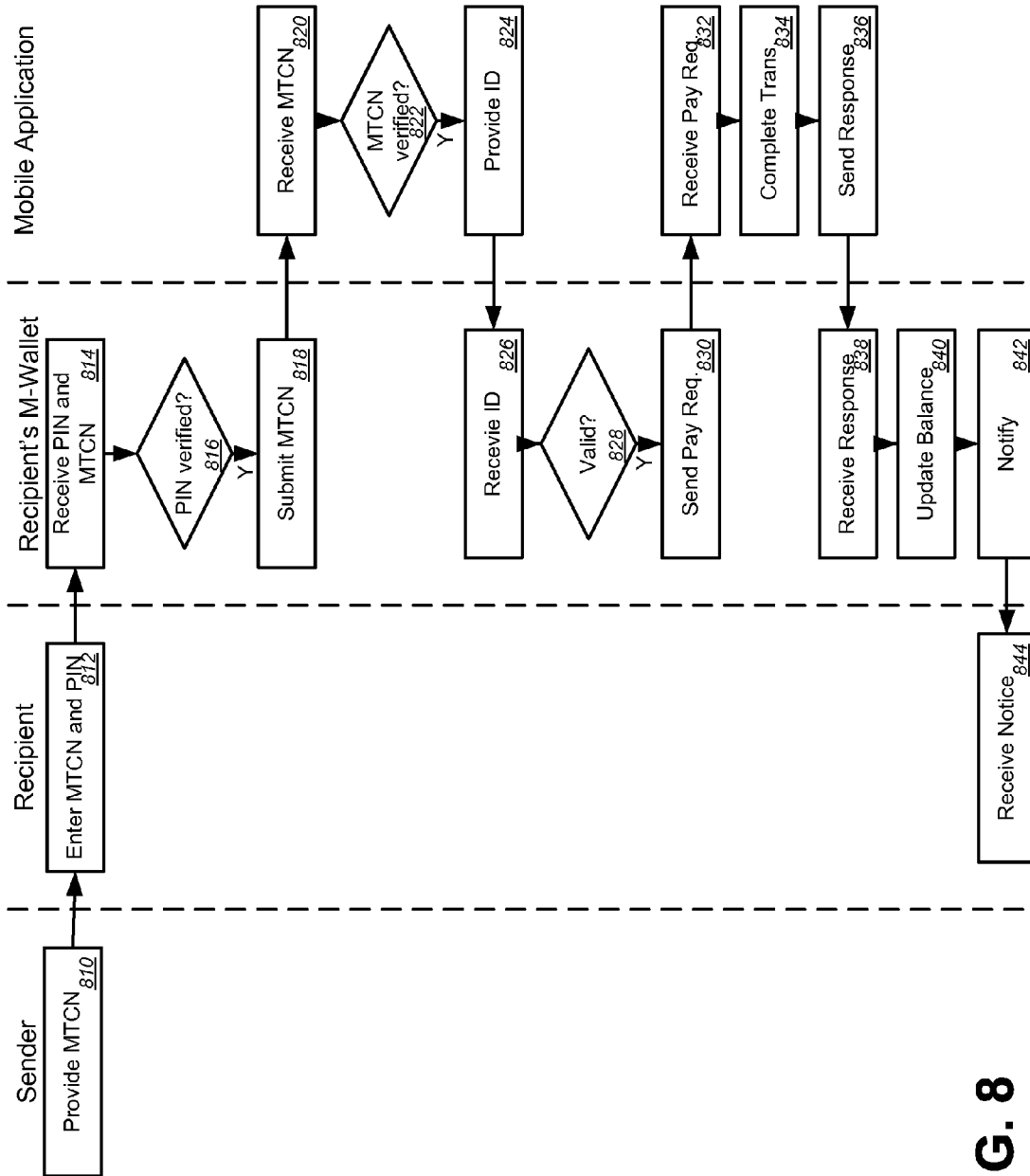


FIG. 8

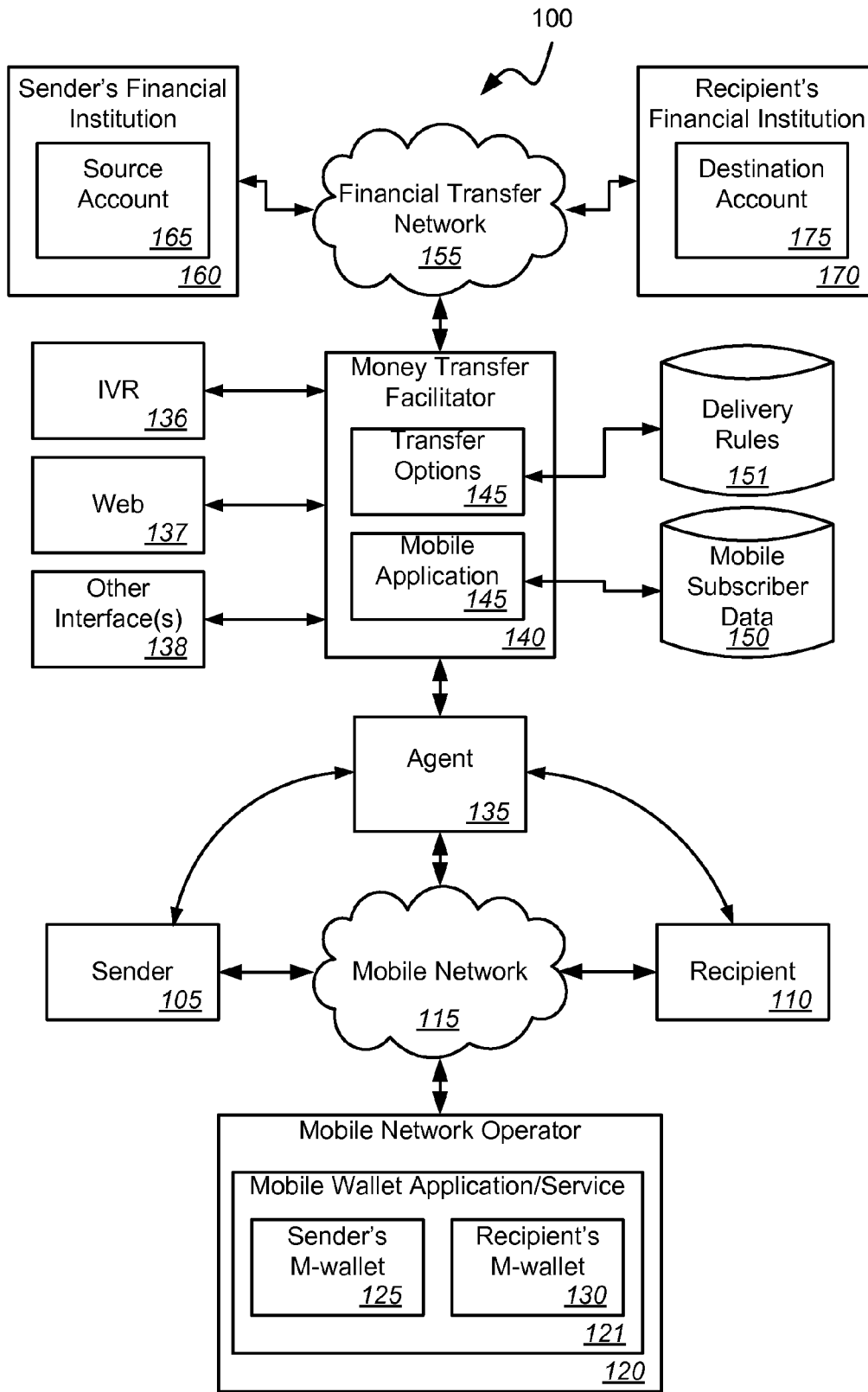


FIG. 9

MONEY TRANSFERS UTILIZING A UNIQUE RECEIVER IDENTIFIER

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part of U.S. patent application Ser. No. 12/146,650 filed Jun. 26, 2008 by Dill et al. and entitled "MONEY TRANSFERS UTILIZING A UNIQUE IDENTIFIER" which claims priority to Provisional U.S. Patent Application No. 60/980,675 filed Oct. 17, 2007, by Dill et al. and entitled "MONEY TRANSFERS UTILIZING A UNIQUE RECEIVER IDENTIFIER," of which the entire disclosure of both are hereby incorporated by reference for all purposes.

BACKGROUND OF THE INVENTION

[0002] This invention relates generally to financial transfers. More specifically, the invention relates to financial transfers utilizing a unique identifier to facilitate flexible payment options for the transaction.

[0003] Third party money transfer services are used extensively to transfer money and pay bills through the use of wire transfers, money orders, and the like. The use of such services, however, usually requires face-to-face contact between an individual representing the third party service provider and the sender and/or the receiver. For example, if a sender is "wiring" money to a receiver, the money is typically deposited with the third party in person, and the sender typically obtains the money from the third party in person. If the money is transferred in the form of a money order, the sender typically deposits the money with the third party in person and receives a money order.

[0004] The use of mobile devices in various types of transactions is also becoming more common. For example, various forms of wireless or mobile device such as cell phone, Personal Digital Assistants (PDAs), etc. can be used to initiate a contactless communication with a Point-Of-Sale (POS) device and pay for goods and services purchased by the user of the device. These devices can also be used to provide other functions with regard to financial accounts to which they may be linked or related. However, money transfer services and systems have not yet been adapted to take advantage of the flexibility and functionality that the use of such mobile devices can provide. Hence, there is a need in the art for improved methods and systems for performing money transfers to facilitate flexible payment options for the transactions.

BRIEF SUMMARY OF THE INVENTION

[0005] Methods, systems, and machine-readable media are disclosed for financial transfers utilizing a unique identifier to facilitate flexible payment options for the transaction. According to one embodiment, a method for supporting a money transfer transaction can comprise receiving a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction at a mobile wallet application. The PIN can be verified with the mobile wallet application and, in response to verifying the PIN, the transaction identifier can be sent to an application of a money transfer facilitator supporting the money transfer transaction.

[0006] The application of the money transfer facilitator can in turn receive and verify the transaction identifier. In response to verifying the transaction identifier, the application of the money transfer facilitator can send a recipient

identifier to the mobile wallet application. The recipient identifier can indicate an intended recipient of the money transfer transaction.

[0007] The recipient identifier from the application of the money transfer facilitator can be received at the mobile wallet application. The mobile wallet application can then validate the recipient identifier. In response to validating the recipient identifier, a payment request can be sent from the mobile wallet application to the application of the money transfer facilitator.

[0008] The payment request can be received at the application of the money transfer facilitator and the money transfer transaction can be completed based at least in part on the payment request. In some cases, the payment request can indicate at least one destination account for the money transfer transaction. In such cases, completing the money transfer transaction can comprise crediting the at least one destination account indicated by the payment request. Alternatively, the payment request can indicate a plurality of destination accounts for the money transfer transaction. In such cases, the payment request may further indicate a distribution of funds of the money transfer transaction to each of the destination accounts. In such cases, completing the money transfer transaction can comprise crediting each of the destination accounts indicated by the payment request and can be based on the distribution indicated by the payment request.

[0009] A response can be sent to the mobile wallet application from the application of the money transfer facilitator. The response can indicate completion of the money transfer transaction. The mobile wallet application can receive the response message from the application of the money transfer facilitator. A balance maintained by the mobile wallet application can be updated based on the response indicating completion of the money transfer transaction. In some cases, a notification can be provided to a user of the mobile wallet application. For example, the notification can indicate the updated balance.

[0010] According to another embodiment, a system can comprise a mobile communications network and a mobile device communicatively coupled with the mobile communications network. The mobile device can execute a mobile wallet application. The mobile wallet application can be adapted to receive a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction, verify the PIN, and in response to verifying the PIN, send the transaction identifier via the mobile communications network. The system can also include a money transfer facilitator system communicatively coupled with the mobile communications network. The money transfer facilitator system can be adapted to receive the transaction identifier from the mobile wallet application, verify the transaction identifier with, and in response to verifying the transaction identifier, send a recipient identifier to the mobile wallet application via the mobile communications network, the recipient identifier indicating an intended recipient of the money transfer transaction.

[0011] The mobile wallet application can be further adapted to receive the recipient identifier from the money transfer facilitator system, validate the recipient identifier, and in response to validating the recipient identifier, send a payment request to the money transfer facilitator system. The money transfer facilitator system can be further adapted to receive the payment request from the mobile wallet application and complete the money transfer transaction based at

least in part on the payment request. In some cases, the payment request can indicate at least one destination account for the money transfer transaction. In such cases, completing the money transfer transaction can comprise crediting the at least one destination account indicated by the payment request. Alternatively, the payment request may indicate a plurality of destination accounts for the money transfer transaction. In such cases, the payment request may further indicate a distribution of funds of the money transfer transaction to each of the destination accounts. In such cases, completing the money transfer transaction can comprise crediting each of the destination accounts indicated by the payment request and can be based on the distribution indicated by the payment request.

[0012] The money transfer facilitator system can be further adapted to send a response to the mobile wallet application indicating completion of the money transfer transaction. In such case, the mobile wallet application can be further adapted to update a balance maintained by the mobile wallet application based on the response indicating completion of the money transfer transaction. The mobile wallet application can be further adapted to provide a notification to a user of the mobile wallet application. For example, the notification may indicate the updated balance.

[0013] According to yet another embodiment, a system can comprise a mobile communications network and a mobile device communicatively coupled with the mobile communications network. The mobile device can execute a mobile wallet application. The mobile wallet application can be adapted to receive a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction, verify the PIN, and in response to verifying the PIN, send the transaction identifier via the mobile communications network. The system can also include a money transfer facilitator system communicatively coupled with the mobile communications network. The money transfer facilitator system can be adapted to receive the transaction identifier from the mobile wallet application, verify the transaction identifier with, and in response to verifying the transaction identifier, send a recipient identifier to the mobile wallet application via the mobile communications network, the recipient identifier indicating an intended recipient of the money transfer transaction.

[0014] The money transfer facilitator system can further comprise one or more interfaces for conducting money transfer transactions and a transfer options module communicatively coupled with the one or more interfaces. The transfer options module can be adapted to receive transaction information for a money transfer transaction from a sender through at least one or the interfaces, provide a notification of the transaction to a recipient of the transaction, and select one or more delivery options for completing the money transfer transaction.

[0015] According to still another embodiment, a money transfer facilitator system can comprise one or more interfaces for conducting money transfer transactions and a transfer options module communicatively coupled with the one or more interfaces. For example, the one or more interfaces can comprise at least one of an Interactive Voice Response (IVR) interface, a web interface, an interface to an agent system, or other interface. The transfer options module can be adapted to receive transaction information for a money transfer transaction from a sender through at least one or the interfaces, provide a notification of the transaction to a recipient of the

transaction, and select one or more delivery options for completing the money transfer transaction. For example, the delivery options can comprise at least one of delivering funds to a bank account of a recipient, delivering funds to a pre-paid account, delivering funds to a funds withholding system, delivering funds to a third party, delivering a draft check, delivering funds through an Automated Teller Machine (ATM), and other options.

[0016] In some cases, the transfer options module can receive an indication of delivery options from a recipient of the money transfer transaction and select one or more delivery options based on the indication. For example, the money transfer options module can receive the indication of delivery options from the recipient via one of the interfaces. In other cases, the transfer options module can additionally or alternatively select one or more delivery options based on one or more delivery rules. For example, the one or more delivery rules can include one or more rules defined by a recipient of the money transfer transaction, one or more rules defined by a sender of the money transfer transaction, and/or one or more rules defined by the money transfer facilitator. In some cases, the notification of the transaction can include an indication of one or more delivery options. In such cases, the transfer options module may define a delivery rule based on the indication of delivery options received from the recipient and may select one or more delivery options for completing a subsequent money transfer transaction based on the delivery rule.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] FIG. 1 is a block diagram illustrating an exemplary system for making financial transfers according to one embodiment of the present invention.

[0018] FIG. 2 is a block diagram illustrating an exemplary computer system upon which embodiments of the present invention may be implemented.

[0019] FIG. 3 illustrates an exemplary flow for a “mobile-to-cash” transaction according to one embodiment of the present invention.

[0020] FIG. 4 illustrates an exemplary flow for a “cash-to-mobile” transaction according to one embodiment of the present invention.

[0021] FIG. 5 illustrates an exemplary flow for a “mobile-to-mobile” transaction according to one embodiment of the present invention.

[0022] FIG. 6 illustrates an exemplary flow for a transaction in which the recipient enrolls “in-flight” according to one embodiment of the present invention.

[0023] FIG. 7 illustrates an exemplary flow for a transaction in which the recipient elects a “cash pick-up” option according to one embodiment of the present invention.

[0024] FIG. 8 illustrates an exemplary flow for a pull transaction model according to one embodiment of the present invention.

[0025] FIG. 9 is a block diagram illustrating another exemplary system for making financial transfers according to one embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0026] In the following description, for the purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of various embodiments of the present invention. It will be apparent, however, to one skilled in the art that embodiments of the present invention

may be practiced without some of these specific details. In other instances, well-known structures and devices are shown in block diagram form.

[0027] The ensuing description provides exemplary embodiments only, and is not intended to limit the scope, applicability, or configuration of the disclosure. Rather, the ensuing description of the exemplary embodiments will provide those skilled in the art with an enabling description for implementing an exemplary embodiment. It should be understood that various changes may be made in the function and arrangement of elements without departing from the spirit and scope of the invention as set forth in the appended claims.

[0028] Specific details are given in the following description to provide a thorough understanding of the embodiments. However, it will be understood by one of ordinary skill in the art that the embodiments may be practiced without these specific details. For example, circuits, systems, networks, processes, and other components may be shown as components in block diagram form in order not to obscure the embodiments in unnecessary detail. In other instances, well-known circuits, processes, algorithms, structures, and techniques may be shown without unnecessary detail in order to avoid obscuring the embodiments.

[0029] Also, it is noted that individual embodiments may be described as a process which is depicted as a flowchart, a flow diagram, a data flow diagram, a structure diagram, or a block diagram. Although a flowchart may describe the operations as a sequential process, many of the operations can be performed in parallel or concurrently. In addition, the order of the operations may be re-arranged. A process is terminated when its operations are completed, but could have additional steps not included in a figure. A process may correspond to a method, a function, a procedure, a subroutine, a subprogram, etc. When a process corresponds to a function, its termination can correspond to a return of the function to the calling function or the main function.

[0030] The term “machine-readable medium” includes, but is not limited to portable or fixed storage devices, optical storage devices, wireless channels and various other mediums capable of storing, containing or carrying instruction(s) and/or data. A code segment or machine-executable instructions may represent a procedure, a function, a subprogram, a program, a routine, a subroutine, a module, a software package, a class, or any combination of instructions, data structures, or program statements. A code segment may be coupled to another code segment or a hardware circuit by passing and/or receiving information, data, arguments, parameters, or memory contents. Information, arguments, parameters, data, etc. may be passed, forwarded, or transmitted via any suitable means including memory sharing, message passing, token passing, network transmission, etc.

[0031] Furthermore, embodiments may be implemented by hardware, software, firmware, middleware, microcode, hardware description languages, or any combination thereof. When implemented in software, firmware, middleware or microcode, the program code or code segments to perform the necessary tasks may be stored in a machine readable medium. A processor(s) may perform the necessary tasks.

[0032] Generally speaking, embodiments of the present invention provide methods and systems for supporting money transfer transactions initiated by and/or conducted through a variety of channels including but not limited to a wireless communication channel including a wireless communication device. Exemplary systems and methods for performing

money transfer transactions via a wireless communication device, such as a cellular phone, blackberry, palm pilot, or similar personal communication device are described in co-pending U.S. patent application Ser. No. 11/462, 223 filed Aug. 3, 2006 by Blair et al and entitled MONEY TRANSFER TRANSACTIONS VIA PRE-PAID WIRELESS COMMUNICATION DEVICES, the complete disclosure of which is herein incorporated by reference in its entirety for all purposes. However, it should be understood that the description of these methods and systems are offered by way of example only and are not intended to limit the scope of embodiments disclosed herein. Rather, other methods and systems for supporting money transfer transactions may also be used with various embodiments of the present invention.

[0033] According to one embodiment, a money transfer transaction can be initiated through a variety of channels. As will be seen, a notification functionality can be provided that uses a unique customer identifier. For example, the unique customer identifier can be provided by the sender to associate the transaction with a receiver's account and/or to notify the receiver of the transaction. The notification can also provide the recipient with the ability to decide on a payout method to receive the money transfer funds. The money transfer transaction may be initiated from a retail agent location of a money transfer facilitator (such as Western Union), from a web site of the money transfer facilitator, from a telephone money transfer service of the money transfer facilitator, from a mobile money transfer send, a kiosk, an ATM or from other channels. In any of the channels, the transaction may be staged by the sender and then completed at a later time. For example, a sender can stage a transaction by calling an IVR or speaking with an operator for the money transfer facilitator to provide transaction information (e.g., sender name, receiver name, and/or amount) and then complete the transfer by visiting an Agent location and paying the transfer amount, along with applicable fees. Similarly, a sender may stage a transaction by paying for it in advance in a checkout lane and then later providing the money transfer facilitator with transaction information (e.g., by providing the transaction information via IVR, live operator and/or web page). The sender can provide the unique identifier for the recipient, which can be any public or proprietary identifier unique to the recipient. For example, the unique identifier for the receiver can be one or any combination of a mobile phone number, an email address, an instant messaging identification, a customer number, account information (e.g., stored value account identifier, bank account number and/or ABA routing number), tax number (e.g., Social Security Number or Taxpayer Identification Number), drivers' license number, state ID number, student ID number or other unique identifier. A customer number can be a preferred customer number or any other unique customer identifier issued by a money transfer facilitator, an agent of money transfer facilitator, a mobile network operator, a retailer, a bank, a service provider (e.g., payment service provider, auction service provider or Internet service provider) or any other party.

[0034] Upon receipt of the transfer request, the money transfer facilitator system can reference external and/or internal databases to identify the recipient's mobile network operator and country. The money transfer facilitator system can also determine whether the customer has enrolled in a mobile wallet and corresponding private account for the money transfer funds to be routed to. If this lookup indicates that the recipient is a mobile subscriber for a mobile network

operator with whom money transfer facilitator has a relationship and is enrolled in the operator's mobile wallet, the recipient can receive an SMS or other format message notifying them that they have received a money transfer and that funds are available in their mobile wallet associated account. If the lookup indicates that the recipient is not enrolled in a mobile wallet, they can alternatively receive an SMS or other format message notifying them that they have received a mobile money transfer. The message can also ask them to either enroll in a mobile wallet to receive their funds in an associated account, to pick up cash at a retail outlet of the money transfer facilitator and/or to designate a destination for transferring funds (e.g., to bank account, investment account, stored value card or account, prepaid card or account, debit card or account, or at a kiosk or an ATM). If the lookup indicates that the recipient is a mobile subscriber for a mobile network operator with whom the money transfer facilitator does not have a relationship, the recipient can receive a notification via SMS or other format message indicating that funds are available for pickup in cash at a cash retail outlet. Other formats for messages can include, without limitation, electronic mail, instant messaging, live operator call, prerecorded or automated voice message, or web page notification.

[0035] Stated another way, a method of supporting a money transfer transaction can comprise receiving a request to initiate the money transfer transaction. Receiving the request to initiate the money transfer transaction can comprise receiving the request from a mobile wallet application of a mobile device, from a web site of a money transfer facilitator, from a retail agent location of a money transfer facilitator, from a telephone money transfer service of a money transfer facilitator, from a kiosk, from an ATM or from another channel. The request can include a unique identifier for a recipient of the money transfer transaction. The unique identifier for the recipient of the money transfer transaction can comprise one or any combination of a phone number for a mobile device of the recipient, an email address for the recipient, an instant messaging identifier for the recipient, a preferred customer number for the recipient or other unique customer identifier issued by a money transfer facilitator or its agent, a mobile network operator, a retailer, a bank, a service provider or any other party, account information (e.g., stored value account identifier, bank account number and/or ABA routing number), a tax number (e.g., Social Security Number or Taxpayer Identification Number), a drivers' license number, a state ID number, a student ID number or another unique identifier.

[0036] A destination for transferring funds for the money transfer transaction to the recipient can be determined based at least in part on the unique identifier for the recipient. Determining the destination for transferring funds to the recipient can comprise determining a mobile network operator for the recipient and determining whether the mobile network operator for the recipient has a relationship with a money transfer facilitator supporting the money transfer transaction. If the mobile network operator for the recipient has a relationship with the money transfer facilitator, a determination can be made as to whether the recipient is enrolled in a mobile wallet service of the mobile network operator. If the recipient is enrolled in the mobile wallet service of the mobile network operator, the destination for transferring funds for the money transfer transaction to the recipient comprises an account associated with the mobile wallet service. If the recipient is not enrolled in the mobile wallet service of the mobile network operator, the destination for transferring

funds for the money transfer transaction to the recipient can comprise a retail outlet of the money transfer facilitator or other designated destination. Additionally or alternatively, in response to determining the recipient is not enrolled in the mobile wallet service of the mobile network operator, a message can be sent to the recipient inviting the recipient to enroll in the mobile wallet service. If the recipient enrolls in the mobile wallet service of the mobile network operator, the destination for transferring funds for the money transfer transaction to the recipient can comprise an account associated with the mobile wallet service. If the mobile network operator for the recipient does not have a relationship with the money transfer facilitator, the destination for transferring funds for the money transfer transaction to the recipient can comprise a retail outlet of the money transfer facilitator or other designated destination.

[0037] Once the destination for transferring funds for the money transfer transaction to the recipient has been determined, the funds can be transferred to the determined destination and the recipient can be notified of availability of funds at the determined destination. Notification can be sent by a money transfer facilitator to the recipient and/or to any party associated with the designated destination (e.g., to a mobile network operator, a retailer, a bank, a service provider (e.g., payment service provider, auction service provider or Internet service provider) or any other party).

[0038] Such a system allows a money transfer facilitator, using a unique customer identifier and internal and/or external mapping databases, to provide a structured settlement between unrelated entities such as the sending mobile wallet and receiving mobile wallet, or between the sending cash retail location and receiving mobile wallet. It need not be a closed-loop system that allows mobile remittances only for consumers who are enrolled in the same mobile wallet system but rather allows entities that are unrelated to allow their enrolled consumers to send a mobile money transaction to a consumer either enrolled under another entity or not enrolled—in which case they are able to enroll in a mobile wallet service, pick up cash at a retail location of the money transfer facilitator or other cash retail outlet or designate a destination for receipt of the money transfer.

[0039] According to one embodiment, a pull transaction model can additionally or alternatively be implemented. According to such embodiments, a money transfer can be initiated in a conventional manner via an agent of a money transfer facilitator. The sender of the transfer can provide an identifier for the transaction to the recipient. The recipient can in turn use the identifier, in combination with functionality of a mobile wallet application of a mobile device to request or "pull" the money transfer to an account associated with the mobile wallet application. In this way, the recipient can receive the transfer to the mobile wallet account even if the sender does not know that such a delivery is available.

[0040] Stated another way, supporting a money transfer transaction can comprise receiving a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction at a mobile wallet application. The PIN can be verified with the mobile wallet application and, in response to verifying the PIN, the transaction identifier can be sent to an application of a money transfer facilitator supporting the money transfer transaction.

[0041] The application of the money transfer facilitator can in turn receive and verify the transaction identifier. In response to verifying the transaction identifier, the applica-

tion of the money transfer facilitator can send a recipient identifier to the mobile wallet application. The recipient identifier can indicate an intended recipient of the money transfer transaction.

[0042] The recipient identifier from the application of the money transfer facilitator can be received at the mobile wallet application. The mobile wallet application can then validate the recipient identifier. In response to validating the recipient identifier, a payment request can be sent from the mobile wallet application to the application of the money transfer facilitator.

[0043] The payment request can be received at the application of the money transfer facilitator and the money transfer transaction can be completed based at least in part on the payment request. In some cases, the payment request can indicate at least one destination account for the money transfer transaction. In such cases, completing the money transfer transaction can comprise crediting the at least one destination account indicated by the payment request. Alternatively, the payment request can indicate a plurality of destination accounts for the money transfer transaction. In such cases, the payment request may further indicate a distribution of funds of the money transfer transaction to each of the destination accounts. In such cases, completing the money transfer transaction can comprise crediting each of the destination accounts indicated by the payment request and can be based on the distribution indicated by the payment request.

[0044] A response can be sent to the mobile wallet application from the application of the money transfer facilitator. The response can indicate completion of the money transfer transaction. The mobile wallet application can receive the response message from the application of the money transfer facilitator. A balance maintained by the mobile wallet application can be updated based on the response indicating completion of the money transfer transaction. In some cases, a notification can be provided to a user of the mobile wallet application. For example, the notification can indicate the updated balance.

[0045] According to yet another embodiment, a system can comprise a mobile communications network and a mobile device communicatively coupled with the mobile communications network. The mobile device can execute a mobile wallet application. The mobile wallet application can be adapted to receive a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction, verify the PIN, and in response to verifying the PIN, send the transaction identifier via the mobile communications network. The system can also include a money transfer facilitator system communicatively coupled with the mobile communications network. The money transfer facilitator system can be adapted to receive the transaction identifier from the mobile wallet application, verify the transaction identifier with, and in response to verifying the transaction identifier, send a recipient identifier to the mobile wallet application via the mobile communications network, the recipient identifier indicating an intended recipient of the money transfer transaction.

[0046] The money transfer facilitator system can further comprise one or more interfaces for conducting money transfer transactions and a transfer options module communicatively coupled with the one or more interfaces. The transfer options module can be adapted to receive transaction information for a money transfer transaction from a sender through at least one or the interfaces, provide a notification of the

transaction to a recipient of the transaction, and select one or more delivery options for completing the money transfer transaction.

[0047] As noted above, embodiments of the present invention provide methods and systems for supporting money transfer transactions initiated by and/or conducted through a variety of channels but are not limited to a wireless communication channel or systems including or using a wireless communication device. Therefore, according to still another embodiment, a money transfer facilitator system can comprise one or more interfaces for conducting money transfer transactions and a transfer options module communicatively coupled with the one or more interfaces. For example, the one or more interfaces can comprise at least one of an Interactive Voice Response (IVR) interface, a web interface, an interface to an agent system, or other interface. The transfer options module can be adapted to receive transaction information for a money transfer transaction from a sender through at least one or the interfaces, provide a notification of the transaction to a recipient of the transaction, and select one or more delivery options for completing the money transfer transaction. For example, the delivery options can comprise at least one of delivering funds to a bank account of a recipient, delivering funds to a pre-paid account, delivering funds to a funds withholding system, delivering funds to a third party, delivering a draft check, delivering funds through an Automated Teller Machine (ATM), and other options.

[0048] In some cases, the transfer options module can receive an indication of delivery options from a recipient of the money transfer transaction and select one or more delivery options based on the indication. For example, the money transfer options module can receive the indication of delivery options from the recipient via one of the interfaces. In other cases, the transfer options module can additionally or alternatively select one or more delivery options based on one or more delivery rules. For example, the one or more delivery rules can include one or more rules defined by a recipient of the money transfer transaction, one or more rules defined by a sender of the money transfer transaction, and/or one or more rules defined by the money transfer facilitator. In some cases, the notification of the transaction can include an indication of one or more delivery options. In such cases, the transfer options module may define a delivery rule based on the indication of delivery options received from the recipient and may select one or more delivery options for completing a subsequent money transfer transaction based on the delivery rule. Additional details of various embodiments of the present invention will be described below with reference to the figures.

[0049] FIG. 1 is a block diagram illustrating an exemplary system for making financial transfers according to one embodiment of the present invention. As illustrated here, the system **100** can include a money transfer facilitator **140** system such as the systems operated by Western Union or another money transfer facilitator service. The money transfer facilitator **140** can be communicatively coupled with a financial transfer network **155**. Also communicatively coupled with the financial transfer network **155** can be one or more financial institutions **160** and **170**. Generally speaking and as understood by one skilled in the art, the money transfer facilitator **140** may access a source account **165** of one financial institution **160** and/or a destination account **175** of the

same or a different financial institution **170** to affect a transfer from and/or to the accounts **165** and **175** via the financial transfer network **155**.

[0050] The money transfer facilitator system **140** can also include or execute a mobile application **145**. As will be seen, the mobile application **145** of the money transfer facilitator can be adapted to support transaction involving one or more mobile devices. Generally speaking, the mobile application **145** can be adapted to identify the entities and/or accounts associated with a transaction and/or determine a destination for a payment of the transaction. For example, the entities and/or accounts can be identified based on a set of mobile subscriber data **150** maintained in a database or other repository. It should be noted that, while illustrated here as separate from the money transfer facilitator system **140**, the mobile subscriber data **150** need not be separated from the money transfer facilitator system **140**. Rather, the mobile subscriber data **150** can be either internal to or external from the money transfer facilitator system **140** depending upon the exact implementation.

[0051] The system can also include an agent **135** in communication with the money transfer facilitator **140**. The agent **135** can comprise a retail outlet location and associated systems of the money transfer facilitator **140**. Generally speaking, the agent **135** provides a channel by which entities can access the services of the money transfer facilitator **140**. It should also be noted that, while not illustrated here for the sake of simplicity and clarity, the agent **135** and/or money transfer facilitator **140** can also provide other channels for accessing the services of the money transfer facilitator **140**. For example, such channels can include but are not limited to a web site, a telephone service, a kiosk, an ATM or other channels. Generally speaking and as understood by one skilled in the art, via one or more such channels, a sender **105** can initiate a transaction to transfer money to a recipient **110**. For example, a sender **105** can access the services of the money transfer facilitator **140** via a web site of the money transfer facilitator **140** and initiate a money transfer from a source account **165** owned by the sender **105**. The recipient **110** of the payment may then, for example, pick up the payment from the agent's **135** retail location.

[0052] The system **100** can also include a mobile network **115**, such as a cellular or other wireless network, communicatively coupled with the agent **135** and/or the money transfer facilitator **140**. A mobile network operator system **120** can be communicatively coupled with the mobile network **115**. As understood by one skilled in the art, the mobile network **115** and mobile network operator system **120** can support communication to and/or from mobile devices communicatively coupled therewith such as a mobile device associated with the sender **105** and/or a mobile device associated with the recipient **110**. It should be noted that the names sender and recipient are used only to illustrate a particular entity's and/or device's function at a given time and are not intended to imply any limitations on the functions that can be performed by a given entity and/or device. That is, any given entity and/or device associated with that entity can alternately act as sender or recipient. Also, it should be understood that while only one mobile network **115** and mobile network operator **120** are illustrated here for the sake of simplicity and clarity, multiple mobile networks **115** and mobile network operators **120** may be present. In some cases, the mobile network and mobile

network operator of the sender **105** may be different from the mobile network and mobile network operator of the recipient **110**.

[0053] The mobile network operator system **120** can include and/or execute a mobile wallet application **120** or service. Generally speaking, the mobile wallet application **121** maintains mobile wallets **125** and **130** for one or more subscribers, such as the sender **105** and/or recipient **110** to the mobile wallet service **121**. The mobile wallets **125** and **130** can each comprise information related to the device and accounts of the entity for which the mobile wallet is maintained. For example, the sender's mobile wallet **125** can maintain information identifying the sender's **105** mobile device, one or more accounts **165** associated with the mobile wallet, and other possible identifying information. Similarly, the recipient's mobile wallet **130** can maintain information identifying the recipient's **110** mobile device, one or more accounts **175** associated with the mobile wallet, and other possible identifying information.

[0054] According to one embodiment, the money transfer facilitator **140** can receive a request to initiate the money transfer transaction, for example a payment from the sender **105** to the recipient **110**. The money transfer facilitator **140** can receive the request to initiate the money transfer transaction from the mobile wallet application **121** of a mobile network operator **120**, from a web site of the money transfer facilitator **140**, from the agent **135**, from a telephone money transfer service of the money transfer facilitator **140**, from a kiosk, from an ATM or from another channel. The request can include a unique identifier for the recipient **110** of the money transfer transaction. The unique identifier for the recipient **110** can comprise one or any combination of a phone number for a mobile device of the recipient, an email address for the recipient, an instant messaging identifier for the recipient, a preferred customer number for the recipient or other unique customer identifier issued by a money transfer facilitator **140** or its agent **135**, the mobile network operator **120**, a retailer, a bank, a service provider or any other party, account information (e.g., stored value account identifier, bank account number and/or ABA routing number), a tax number (e.g., Social Security Number or Taxpayer Identification Number), a drivers' license number, a state ID number, a student ID number or another unique identifier.

[0055] A destination for transferring funds for the money transfer transaction to the recipient **110** can be determined by the money transfer facilitator **140**, agent **135**, and/or mobile network operator **120** based at least in part on the unique identifier for the recipient **110**. Determining the destination for transferring funds to the recipient **110** can comprise identifying mobile network operator **120** for the recipient **110** and determining whether the mobile network operator **120** for the recipient **110** has a relationship with the money transfer facilitator **140** supporting the money transfer transaction. If the mobile network operator **120** for the recipient **110** has a relationship with the money transfer facilitator **140**, a determination can be made as to whether the recipient **110** is enrolled in a mobile wallet service **121** of the mobile network operator **120**. If the recipient **110** is enrolled in the mobile wallet service **121** of the mobile network operator **120**, the destination for transferring funds for the money transfer transaction to the recipient **110** can comprise an account **175** associated with the mobile wallet **130** of the recipient. If the recipient **110** is not enrolled in the mobile wallet service **121** of the mobile network operator **120**, the destination for trans-

ferring funds for the money transfer transaction to the recipient **110** can comprise a retail outlet of the money transfer facilitator or other designated destination, e.g., the agent's **135** location. Additionally or alternatively, in response to determining the recipient **110** is not enrolled in the mobile wallet service **121** of the mobile network operator **120**, a message can be sent to the recipient **110** inviting the recipient **110** to enroll in the mobile wallet service **121**. If the recipient **110** enrolls in the mobile wallet service **121** of the mobile network operator **120**, the destination for transferring funds for the money transfer transaction to the recipient **110** can comprise an account **175** associated with the mobile wallet **130** of the recipient **110**. If the mobile network operator **121** for the recipient **110** does not have a relationship with the money transfer facilitator **140**, the destination for transferring funds for the money transfer transaction to the recipient **110** can comprise a retail outlet of the money transfer facilitator or other designated destination e.g., the agent's **135** location.

[0056] Once the destination for transferring funds for the money transfer transaction to the recipient **110** has been determined, the funds can be transferred to the determined destination and the recipient **110** can be notified of availability of funds at the determined destination. Notification can be sent by a money transfer facilitator **140** to the recipient **110** and/or to any party associated with the designated destination (e.g., to a mobile network operator **120**, a retailer, a bank, a service provider (e.g., payment service provider, auction service provider or Internet service provider) or any other party).

[0057] Such a system **100** allows a money transfer facilitator **140**, using a unique customer identifier and internal and/or external mapping databases **150**, to provide a structured settlement between unrelated entities such as the sending mobile wallet **125** and receiving mobile wallet **130**, or between the sending cash retail location and receiving mobile wallet **130**. It need not be a closed-loop system that allows mobile remittances only for consumers who are enrolled in the same mobile wallet system but rather allows entities that are unrelated to allow their enrolled consumers to send a mobile money transaction to a consumer either enrolled under another entity or not enrolled—in which case they are able to enroll in a mobile wallet service, pick up cash at a retail location of the money transfer facilitator or other cash retail outlet or designate a destination for receipt of the money transfer.

[0058] Stated another way, embodiments of the present invention provide for financial transfers utilizing a unique identifier to facilitate flexible payment delivery options for the transaction. For example, one option can comprise a “mobile-to-cash” option in which the user of a mobile device initiates a transaction paid from an account associated with a mobile wallet of that user to a recipient that can receive the payment in cash, for example from an agent of the money transfer facilitator. Another option can comprise a “cash-to-mobile” option in which an entity pays for and initiates a transaction in person, for example via an agent of the money transfer facilitator, and wherein the payment is delivered to an account associated with a mobile wallet of the recipient. Yet another option can comprise a “mobile-to-mobile” option in which the user of a mobile device initiates a transaction paid from an account associated with a mobile wallet of that user wherein the payment is delivered to an account associated with a mobile wallet of the recipient. These options can include variations such as an option to allow a user of a mobile device to enroll “on the fly.” That is, if a transaction involves

a recipient is not currently enrolled in a mobile service that allows mobile delivery of payments, i.e., payment to an account associated with a mobile wallet, the recipient may be provided with a notice of availability of the payment and an opportunity to enroll in the service and receive the payment at that time. Each of these options will be described below in more detail with reference to FIGS. 3-7.

[0059] FIG. 2 is a block diagram illustrating an exemplary computer system upon which embodiments of the present invention may be implemented. This example illustrates a computer system **200** such as may be used, in whole, in part, or with various modifications, to provide the functions of the sender's mobile device, the receiver's mobile device, the agent **135** system, the money transfer facilitator system **140**, the mobile network operator system **120**, and/or other components of the invention such as those discussed above.

[0060] The computer system **200** is shown comprising hardware elements that may be electrically coupled via a bus **290**. The hardware elements may include one or more central processing units **210**, one or more input devices **220** (e.g., a mouse, a keyboard, etc.), and one or more output devices **230** (e.g., a display device, a printer, etc.). The computer system **200** may also include one or more storage device **240**. By way of example, storage device(s) **240** may be disk drives, optical storage devices, solid-state storage device such as a random access memory (“RAM”) and/or a read-only memory (“ROM”), which can be programmable, flash-updateable and/or the like.

[0061] The computer system **200** may additionally include a computer-readable storage media reader **250**, a communications system **260** (e.g., a modem, a network card (wireless or wired), an infra-red communication device, Bluetooth™ device, cellular communication device, etc.), and working memory **280**, which may include RAM and ROM devices as described above. In some embodiments, the computer system **200** may also include a processing acceleration unit **270**, which can include a digital signal processor, a special-purpose processor and/or the like.

[0062] The computer-readable storage media reader **250** can further be connected to a computer-readable storage medium, together (and, optionally, in combination with storage device(s) **240**) comprehensively representing remote, local, fixed, and/or removable storage devices plus storage media for temporarily and/or more permanently containing computer-readable information. The communications system **260** may permit data to be exchanged with a network, system, computer and/or other component described above.

[0063] The computer system **200** may also comprise software elements, shown as being currently located within a working memory **280**, including an operating system **284** and/or other code **288**. It should be appreciated that alternate embodiments of a computer system **200** may have numerous variations from that described above. For example, customized hardware might also be used and/or particular elements might be implemented in hardware, software (including portable software, such as applets), or both. Furthermore, connection to other computing devices such as network input/output and data acquisition devices may also occur.

[0064] Software of computer system **200** may include code **288** for implementing any or all of the function of the various elements of the architecture as described herein. For example, software, stored on and/or executed by a computer system such as system **200**, can provide the functions of the sending subscriber interface, the receiving subscriber interface, the

agent server **125**, the source transfer network **165**, the primary transfer network **160**, the destination transfer network **190**, the communication network **115**, and/or other components of the invention such as those discussed above.

[0065] As noted above, embodiments of the present invention provide for financial transfers utilizing a unique identifier to facilitate flexible payment delivery options for the transaction. For example, one option can comprise a “mobile-to-cash” option in which the user of a mobile device initiates a transaction paid from an account associated with a mobile wallet of that user to a recipient that can receive the payment in cash, for example from an agent of the money transfer facilitator. Another option can comprise a “cash-to-mobile” option in which an entity pays for and initiates a transaction in person, for example via an agent of the money transfer facilitator, and wherein the payment is delivered to an account associated with a mobile wallet of the recipient. Yet another option can comprise a “mobile-to-mobile” option in which the user of a mobile device initiates a transaction paid from an account associated with a mobile wallet of that user wherein the payment is delivered to an account associated with a mobile wallet of the recipient. These options can include variations such as an option to allow a user of a mobile device to enroll “on the fly.” That is, if a transaction involves a recipient is not currently enrolled in a mobile service that allows mobile delivery of payments, i.e., payment to an account associated with a mobile wallet, the recipient may be provided with a notice of availability of the payment and an opportunity to enroll in the service and receive the payment at that time. Each of these options will be described below in more detail with reference to FIGS. 3-7.

[0066] FIG. 3 illustrates an exemplary flow for a “mobile-to-cash” transaction according to one embodiment of the present invention. In this example, the process begins with a sender **105** initiating a money transfer by sending **305** a request to a mobile wallet application **121** of the sender’s mobile network operator **120**. The mobile wallet application **121** can check **310** a current balance of the account **165** associated with the sender’s mobile wallet **125** and, if the funds in the account **165** associated with the sender’s mobile wallet **125** are sufficient for the transfer, the mobile wallet application **121** can in turn send **315** a request to a mobile application **145** of the money transfer facilitator **140**. This request can include, for example, information identifying the send, information identifying the recipient, transaction information, e.g., amount, etc. and/or other information. While FIG. 3 describes the process beginning with a sender **105** initiating a money transfer by sending a request to a mobile wallet application **121** of the sender’s mobile network operator **120**, it should be appreciated that a sender **105** can begin the process by initiating a money transfer through a money transfer facilitator **140** (or its agent **135**), which then queries a mobile network operator **120** whether sufficient funds are available in the account **160** associated with the mobile wallet **125** of the sender.

[0067] The mobile application **145** of the money transfer facilitator **140**, upon receiving the request, can perform a process to look up (e.g., a Mobile Station Integrated Service Digital Network (MSISDN), International Mobile Subscriber Identity (IMSI) and/or Temporary Mobile Subscriber Identity (TMSI)) for the sender **105** and/or recipient **110** and/or otherwise verify **320** the data provided by the mobile wallet application **121** in the request. The mobile application **145** of the money transfer facilitator **140** can then provide **325** a

response to the request from the mobile wallet application **121**. If the data of the request is verified by the mobile application **145** of the money transfer facilitator **140**, the response may include information related to and/or describing fees, legal notices, etc. Alternatively or additionally, the look up can be performed by the mobile network operator **120**.

[0068] The mobile wallet application **121**, upon receiving the response from the mobile application **145** of the money transfer facilitator **140** can obtain **330** and **335** confirmation of the transaction from the sender **105**. Upon confirmation **330** and **335**, the mobile wallet application **121** can in turn send **340** a transfer request to the mobile application **145** of the money transfer facilitator **140**.

[0069] Upon receipt of the transfer request, the mobile application **145** of the money transfer facilitator **140** can initiate a money transfer send process which returns **345** a transaction identifier (e.g., Money Transfer Control Number (MTCN)) to the mobile wallet application **121** indicating that the transaction is available for payout. Additionally, the mobile application **145** of the money transfer facilitator **140** can send **350** a notification of the transaction and the availability of funds to the recipient **110**.

[0070] The recipient **110**, after receiving **355** the notification, can present **360** an identification, the MSISDN, the MTCN, answer to a test question and/or other information to an agent **135** of the money transfer facilitator, e.g., at a retail outlet of the money transfer facilitator **140**. The agent **135** of the money transfer facilitator **140** can in turn submit **365** this information and/or routing details for the transfer to the mobile application **145** of the money transfer facilitator **140**. The mobile application **145** of the money transfer facilitator **140** can then perform a validation **370** of the data provided by the agent **135** and, if valid, perform a money transfer release process **375** to route the money transfer and/or instruct the agent **135** to pay **380** and **385** the transaction to the recipient **110**.

[0071] FIG. 4 illustrates an exemplary flow for a “cash-to-mobile” transaction according to one embodiment of the present invention. In this example, the process begins with a sender **105** initiating **405** a money transfer via an agent **135** of the money transfer facilitator **140**, e.g., a retail outlet. That is, the sender **105** can pay cash to the agent **135** and provide an identifier for the recipient **110** of the transfer. For example, the process also could begin with a sender **105** initiating a money transfer via a website, telephone, kiosk, ATM, in-lane at a retailer or through any other channel and paying for the transfer and applicable fees through any available funding source (e.g., credit card or account, ATM or debit card or account, prepaid card or account, smart card, check, electronic check, travelers check, money order or through an Automated Clearing House). The money transfer facilitator **140** (or its agent **135**) can in turn submit **410** a request to a money transfer facilitator **140** mobile application **145**.

[0072] The money transfer facilitator **140** mobile application **145** can in turn perform a process to look up (e.g., an MSISDN, IMSI and/or TMSI) for the recipient **110** and/or otherwise verify **415** the data provided by the sender **105**. The mobile application **145** of the money transfer facilitator **140** can then provide a response **420** to the request from the money transfer facilitator **140** or its agent **135**. If the data of the request is verified by the mobile application **145** of the money transfer facilitator **140**, the response may include information

related to and/or describing fees, legal notices, etc. Alternatively or concurrently, the look up can be performed by the mobile network operator 120.

[0073] The agent 135 can in turn request confirmation 425 of the transaction from the sender 105. Upon confirmation 430 of the transaction by the sender 105, the agent 135 of the money transfer facilitator 140 can send 435 a transfer request to the mobile application 145 of the money transfer facilitator 140.

[0074] Upon receipt of the transfer request, the mobile application 145 of the money transfer facilitator 140 can initiate a money transfer send process which returns 440 an MTCN to the agent 135. Additionally, the mobile application 145 of the money transfer facilitator 140 can send 445 a notification of the transaction and the availability of funds to the mobile wallet 130 of the recipient 110 and/or to the mobile network operator 120.

[0075] The mobile wallet application 121, upon receiving the notification from the mobile application 145 of the money transfer facilitator 140, can execute a look-up 450 account process to determine an account 175 associated with the mobile wallet 130 into which the funds should be transferred. Once this account is identified, the mobile wallet 130 can send a message to the mobile application 145 of the money transfer facilitator 140 confirming 455 the recipient 110. Additionally, the mobile wallet 130 can send 460 a message to the mobile application 145 of the money transfer facilitator 140 to initiate the receipt, i.e., the transfer of funds to the identified account 175.

[0076] Upon receipt of the transfer request, the mobile application 145 of the money transfer facilitator 140 can perform a money transfer release process 465. The process 465 can perform a transfer of the funds to the identified account 175 of the recipient 110 and send a message to the mobile wallet application 121 indicating success or failure of the transfer. The mobile wallet application 121 can in turn update 470 a balance of the account, assuming a successful transfer, and notify 475 and 480 the recipient of the transfer.

[0077] FIG. 5 illustrates an exemplary flow for a “mobile-to-mobile” transaction according to one embodiment of the present invention. In this example, the process begins with a sender 105 initiating a money transfer by sending 505 a request to a mobile wallet application 121 of the sender’s mobile network operator 120. The mobile wallet application 121 of the sender 105 can check 510 a current balance of the account 165 associated with the sender’s mobile wallet 125 and, if 510 the funds in the account 165 associated with the sender’s mobile wallet 125 are sufficient for the transfer, the mobile wallet application 121 can in turn send 515 a request to a mobile application 145 of the money transfer facilitator 140. This request can include, for example, information identifying the sender 105, information identifying the recipient 110, transaction information, e.g., amount, etc. and/or other information.

[0078] The mobile application 145 of the money transfer facilitator 140, upon receiving the request, can perform a process to look up (e.g., via MSISDN, IMSI and/or TMSI) for the sender 105 and/or recipient 110 and/or otherwise verify 520 the data provided by the mobile wallet application 121 of the sender 105 in the request. The mobile application 145 of the money transfer facilitator 140 can then provide a response 525 to the request from the mobile wallet application 121 of the sender 110. If the data of the request is verified by the mobile application 145 of the money transfer facilitator 140,

the response may include information related to and/or describing fees, legal notices, etc. Alternatively or additionally, the look up can be performed by the mobile network operator 120.

[0079] The mobile wallet application 121 of the sender 110, upon receiving the response from the mobile application 145 of the money transfer facilitator 140 can obtain confirmation 530 and 535 of the transaction from the sender 105. Upon confirmation 530 and 535, the mobile wallet application 121 of the sender 105 can in turn send 540 a transfer request to the mobile application 145 of the money transfer facilitator 140.

[0080] Upon receipt of the transfer request, the mobile application 145 of the money transfer facilitator 140 can initiate a money transfer send process which returns 545 a Money Transfer Control Number (MTCN) to the mobile wallet application 121 indicating that the transaction is available for payout. The mobile application 145 of the money transfer facilitator 140 can also send 550 a message to the mobile wallet 130 of the recipient 110 and/or to the mobile network operator 120 indicating availability of the funds for transfer.

[0081] The mobile wallet application 121 of the recipient 110, upon receiving the notification from the mobile application 145 of the money transfer facilitator 140, can execute a look-up account process 55 to determine an account 175 associated with the mobile wallet 130 into which the funds should be transferred. Once this account is identified, the mobile wallet 130 of the recipient 110 can send 560 a message to the mobile application 145 of the money transfer facilitator 140 confirming the recipient. Additionally, the mobile wallet 130 of the recipient 110 can send 565 a message to the mobile application 145 of the money transfer facilitator 140 to initiate the receipt, i.e., the transfer of funds to the identified account 175.

[0082] Upon receipt of the transfer request, the mobile application 145 of the money transfer facilitator 140 can perform a money transfer release process 570. The process 570 can perform a transfer of the funds to the identified account 175 of the recipient 110 and send a message to the mobile wallet application 121 of the recipient 110 indicating success or failure of the transfer. The mobile wallet application 121 of the recipient 110 can in turn update 575 a balance of the account, assuming a successful transfer, and notify 580 and 585 the recipient 110 of the transfer.

[0083] FIG. 6 illustrates an exemplary flow for a transaction in which the recipient enrolls “in-flight” according to one embodiment of the present invention. In this example, processing begins after the money transfer send process has been initiated by the mobile application 145 of the money transfer facilitator 140 as described in the examples above. At this point, the mobile application 145 of the money transfer facilitator 140 can send 605 and 610 a response message to the sender 105, either the agent 135 of the money transfer facilitator 140 or the mobile wallet 125 of the sender 105, indicating the MTCN and/or that the transaction is available for payout. Also, the mobile application 145 of the money transfer facilitator 140 can send 615 a message to the mobile wallet application 121 of the recipient’s 110 mobile network operator 120 indicating availability of the funds for transfer.

[0084] Upon receipt of the message indicating availability of the funds for transfer, the mobile wallet application 121 of the recipient’s 110 wireless network operator 120 can perform a look up process 620 to attempt to identify an account 175 associated with the recipient’s 110 mobile wallet 130. However, if the recipient 110 does not have a mobile wallet,

i.e., the recipient 110 does not subscribe to or enroll in that service, the mobile wallet application 121 of the recipient's mobile network operator 120 can return 625 a response to the mobile application 145 of the money transfer facilitator 140 indicating that the recipient 110 does not have an account/wallet. Additionally, the mobile wallet application 121 of the recipient's mobile network operator 120 and/or money transfer facilitator 140 can send 630 a message to the recipient 110, e.g., via the recipient's mobile device, notifying the recipient 110 of the availability of funds and inviting the recipient 110 to enroll in the mobile wallet service to receive the transfer.

[0085] The recipient 110 can then elect, for example, via the recipient's mobile device, to enroll in the service to receive the funds transfer, to pick up the funds at an agent 135 of the money transfer facilitator 140 or to designate a destination for receiving the money transfer. If the recipient elects to enroll 635, the recipient 110 can provide 640 some identifying information to the mobile wallet application 121. The mobile wallet application 121 can in turn perform a search or verification process 645. Upon successful completion of this process, the mobile wallet application 121 can send 650 a transfer request to the mobile application 145 of the money transfer facilitator 140 to complete the transfer.

[0086] Upon receipt of the transfer request, the mobile application 145 of the money transfer facilitator 140 can perform a money transfer release process 655. The process 655 can perform a transfer of the funds to the identified account 175 of the recipient 110 and send a message to the mobile wallet application 121 of the recipient 110 indicating success or failure of the transfer. The mobile wallet application 121 of the recipient 110 can in turn update 660 a balance of the account 175, assuming a successful transfer, and notify 665 and 670 the recipient 110 of the transfer. Alternatively, or in addition, the money transfer facilitator 140 can notify the recipient 110 of the transfer.

[0087] FIG. 7 illustrates an exemplary flow for a transaction in which the recipient elects a "cash pick-up" option according to one embodiment of the present invention. In this example, processing begins after the money transfer send process has been initiated by the mobile application 145 of the money transfer facilitator 140 as described in the examples above. At this point, the mobile application 145 of the money transfer facilitator 140 can send 705 and 710 a response message to the sender 105, either the agent 135 of the money transfer facilitator 140 or the mobile wallet 125 of the sender 105, indicating the MTCN and/or that the transaction is available for payout. Also, the mobile application 145 of the money transfer facilitator 140 can send 715 a message to the mobile wallet application 121 of the recipient's 110 mobile network operator 120 indicating availability of the funds for transfer.

[0088] Upon receipt of the message indicating availability of the funds for transfer, the mobile wallet application 121 of the recipient's mobile network operator 120 can perform a look up process 720 to attempt to identify an account 175 associated with the recipient's 110 mobile wallet 130. However, if the recipient 110 does not have a mobile wallet, i.e., the recipient 110 does not subscribe to or enroll in that service, the mobile wallet application 121 of the recipient's mobile network operator 120 can return 725 a response to the mobile application 145 of the money transfer facilitator 140 indicating that the recipient 110 does not have an account/wallet. Additionally, the mobile wallet application 121 of the recipient's mobile network operator 120 and/or the money

transfer facilitator 140 can send 730 a message to the recipient 110, e.g., via the recipient's mobile device, notifying the recipient 110 of the availability of funds and inviting the recipient 110 to enroll in the mobile wallet service to receive the transfer or otherwise designate a destination for receiving the money transfer.

[0089] The recipient 110 can then elect, for example, via the recipient's mobile device, to enroll in the service to receive the funds transfer, to pick up the funds at an agent 135 of the money transfer facilitator 140 or designate a destination for receiving the money transfer. If the recipient 110 elects 735 to pick up the funds from an agent 135 of the money transfer facilitator 140, the recipient 110 can present 740 an identification, the MSISDN, IMSI, TMSI, the MTCN, provide an answer to a test question and/or other information to the agent 135 of the money transfer facilitator 140, e.g., at a retail outlet of the money transfer facilitator 140. The agent 135 of the money transfer facilitator 140 can in turn submit 745 this information and/or routing details for the transfer to the mobile application 145 of the money transfer facilitator 140. The mobile application 145 of the money transfer facilitator 140 can then perform a validation 750 of the data provided by the agent 135 and, if valid, perform a money transfer release process 755 to route the money transfer and/or instruct the agent 135 to pay 760 and 765 the transaction to the recipient.

[0090] It should be understood that, while described herein with reference to mobile devices, embodiments of the present invention are not limit to use with any type of device, wired or wireless, or any channel of communication. Rather, the sender, the recipient, or both can use any of a variety of channels to initiate a transfer, receive notification of the transfer, and/or direct funds in the transfer. For example, the sender and/or recipient can be a customer of a bank, a payment service (like PayPal), a local and/or long distance telephone service, a cable or satellite television service. In other examples, the sender and/or recipient may hold a loyalty card issued by a money transfer facilitator 140 (e.g., Western Union Gold Card holder who receives money is notified of transfer and can designate destination for receiving the transfer) or by a third party (e.g., receiver has loyalty number (represented by account number, telephone number, bar code, etc.) issued by a retailer such as a grocery store and sender can use that loyalty number to send money to an account designated by the recipient for recipient's use in making purchases at retailer. In yet other examples the sender and/or recipient can be registered with an action site like eBay. In any of these examples, transfers can be initiated by a sender through a channel appropriate to that sender, the transfer can be handled and directed by a money transfer facilitator 140, network operator, service provider, third-party, and/or other entities as appropriate for that channel, notification can be directed to the recipient through a channel appropriate to that recipient, and funds can be directed to a destination as determined as described above.

[0091] As noted above, a pull transaction model can additionally or alternatively be implemented. According to such embodiments, a money transfer can be initiated in a conventional manner via an agent of a money transfer facilitator. The sender of the transfer can provide an identifier for the transaction to the recipient. The recipient can in turn use the identifier, in combination with functionality of a mobile wallet application of a mobile device to request or "pull" the money transfer to an account associated with the mobile

wallet application. In this way, the recipient can receive the transfer to the mobile wallet account even if the sender does not know that such a delivery is available.

[0092] FIG. 8 illustrates an exemplary flow for a pull transaction model according to one embodiment of the present invention. This example assumes that a money transfer transaction has been previously initiated by the sender 105. For example, the sender 105 can visit an agent 135 location as described above to make a payment and initiate a money transfer transaction as described above. Alternatively, the sender 105 can initiate the money transfer transaction via a website or Interactive Voice Response (IVR) phone system of the money transfer facilitator, bank, financial institution, or other entity as described above or as otherwise known in the art.

[0093] As illustrated in FIG. 8, the process begins with the sender 105 providing 810 an identifier for the transaction to the recipient 110. That is, the sender 105 can notify the recipient 110 in person, via a phone call, Instant Message (IM), text message, email message, etc. of an identifier for the money transfer transaction provided to the sender 105 by the agent 135 after the sender initiated the money transfer transaction. Alternatively the agent 135 may provide the transaction identifier to the recipient 110 via a phone call, Instant Message (IM), text message, email message, or other communication.

[0094] The recipient 110 can then enter 812 the received transaction identifier and perhaps a Personal Identification Number (PIN) for the recipients mobile wallet 130 into a mobile wallet application 121. For example, the recipient can enter 812 the PIN and transaction identifier via a keypad or other input device of a cell phone or other mobile device executing the mobile wallet application 121. The PIN and the transaction identifier for a previously initiated money transfer transaction can be received 814 by the mobile wallet application 121. The PIN can be verified 816 with the mobile wallet application 121 and, in response to verifying 816 the PIN, the transaction identifier can be sent 818 to an application 145 of a money transfer facilitator supporting the money transfer transaction.

[0095] The application 145 of the money transfer facilitator 140 can in turn receive 820 and verify 822 the transaction identifier. In response to verifying 822 the transaction identifier, the application 145 of the money transfer facilitator 140 can send 824 a recipient identifier to the mobile wallet application 121. The recipient identifier can indicate or identify an intended recipient of the money transfer transaction.

[0096] The recipient identifier from the application 145 of the money transfer facilitator 140 can be received 826 at the mobile wallet application 121. The mobile wallet application 121 can then validate 828 the recipient identifier. In response to validating 828 the recipient identifier, a payment request can be sent 830 from the mobile wallet application 121 to the application 145 of the money transfer facilitator 140.

[0097] The payment request can be received 832 at the application 145 of the money transfer facilitator 140 and the money transfer transaction can be completed 834, i.e., money transferred to a destination account, based at least in part on the payment request. In some cases, the payment request can indicate at least one destination account for the money transfer transaction, for example, an account associated with the mobile wallet application 121 and identified thereby. In such cases, completing 834 the money transfer transaction can comprise crediting the at least one destination account indi-

cated by the payment request. Alternatively, the payment request can indicate a plurality of destination accounts for the money transfer transaction. In such cases, the payment request may further indicate a distribution of funds of the money transfer transaction to each of the destination accounts, for example as entered or indicated by a user of the mobile wallet application via a user interface thereof. In such cases, completing 834 the money transfer transaction can comprise crediting each of the destination accounts indicated by the payment request and can be based on the distribution indicated by the payment request.

[0098] A response can be sent 836 to the mobile wallet application 121 from the application 145 of the money transfer facilitator 140. The response can indicate completion of the money transfer transaction. The mobile wallet application 121 can receive 838 the response message from the application 145 of the money transfer facilitator 140. A balance maintained by the mobile wallet application 121 for the recipient's mobile wallet 130 can be updated 840 based on the response indicating completion of the money transfer transaction. In some cases, a notification can be provided 842 and 844 to a user of the mobile wallet application. For example, the notification can indicate the updated balance of the recipient's mobile wallet 130.

[0099] As noted above, embodiments of the present invention provide methods and systems for supporting money transfer transactions initiated by and/or conducted through a variety of channels but are not limited to a wireless communication channel or systems including or using a wireless communication device. Rather, these systems and methods can be adapted to provide the sender choices of how to send or initiate the transfer and the recipient choices of pick up, divert, or receive the funds. In other words, these systems and methods can be adapted to allow the senders to get the money into the system in any way, and for the receivers to take the money out of the system in any way. Therefore, the following exemplary system illustrates and describes elements and features that may additionally or alternatively be used with systems to support such money transfer transactions. However, it should be understood that the elements of this system and the corresponding functions are described by way of example only and are not intended to limit the scope of the present invention. Further, it should be understood that the elements and functions of this system can vary depending upon the exact implementation. For example, in some implementations, support of mobile networks and/or mobile devices may not be important and thus may be excluded. In other cases, fewer, additional, or different interfaces may be utilized. Other variations and different implementations are contemplated and considered to be within the scope of the present invention.

[0100] FIG. 9 is a block diagram illustrating another exemplary system for making financial transfers according to one embodiment of the present invention. Generally speaking, the system 100 illustrated here can comprise a system as described above with reference to FIG. 1 and can include some or all of the same components and may perform some or all of the same functions. For example, the system 100 can include a money transfer facilitator system 140 as described above that may be adapted to receive transaction information from a mobile wallet application 121 via a mobile network 115 as described in detail above.

[0101] As illustrated here, the money transfer facilitator system 140 can additionally or alternatively comprise one or

more interfaces **136-138** for conducting money transfer transactions and a transfer options module **145** communicatively coupled with the one or more interfaces **136-138**. For example, the one or more interfaces **136-138** can comprise at least one of an Interactive Voice Response (IVR) interface **136**, a web interface **137**, as well as or instead of an interface to an agent system **135**, a telephone interface to a customer service representative, or other interfaces **138**. The transfer options module **145** can be adapted to receive transaction information for a money transfer transaction from a sender **105** through at least one of the interfaces **136-138**, provide a notification of the transaction to a recipient of the transaction, and select one or more delivery options for completing the money transfer transaction. For example, the delivery options can comprise at least one of delivering funds to a bank account of a recipient such as destination account **175** of the recipient's financial institution **170**, delivering funds to a pre-paid account, delivering funds to a funds withholding system, delivering funds to a third party, delivering a draft check, delivering funds through an Automated Teller Machine (ATM), making funds available for pick up at an agent location. It should be noted that these exemplary delivery options are provided for illustrative purposes only and are not intended to limit the scope of the present invention. Rather, other payout options and methodologies as known in the art are contemplated and considered to be within the scope of the present invention.

[0102] In some cases, the transfer options module **145** can receive an indication of delivery options from a recipient **110** of the money transfer transaction and select one or more delivery options based on the indication. For example, the money transfer options module **145** can receive the indication of delivery options from the recipient **110** via one of the interfaces **136-138**. In other cases, the transfer options module **145** can additionally or alternatively select one or more delivery options based on one or more delivery rules **151**. For example, the one or more delivery rules **151** can include one or more rules defined by a recipient **110** of the money transfer transaction, one or more rules defined by a sender **105** of the money transfer transaction, and/or one or more rules defined by the money transfer facilitator. In some cases, the notification of the transaction can include an indication of one or more delivery options. In such cases, the transfer options module **145** may define a delivery rule based on the indication of delivery options received from the recipient **110** and may select one or more delivery options for completing a subsequent money transfer transaction based on the defined delivery rule.

[0103] In this way, the recipient **110** is able to make the determination of how to receive or divert funds originally put into the system for them by one or more "remitting" consumers, i.e., sender **105**. For example the recipient **110** may choose to receive funds for the transfer as funds directed to a bank account **175** by supplying their account number and routing number via one of the interfaces **136-138**, as value placed onto a prepaid card and delivered directly to the receivers residence, as funds placed into some other pre-established funds withholding system, as funds sent directly to another entity, e.g., bill payment, support payment, etc., as a draft check, as money available through an ATM, etc.

[0104] Such services can be provided to the recipient **110** in a variety of ways. For example, a notification can be provided to the recipient **110** via a mobile device and mobile network **115** as described above. Additionally or alternatively, a tele-

phone call, telegram, email, SMS, U.S. postal letter, or other type of message can be sent to the recipient **110** providing the recipient **110** with notification of the transfer transaction and possibly instructions and/or options. Via one of the interfaces **136-138**, e.g., by logging onto a website, calling an IVR, visiting an agent location, etc. depending upon the notification and/or instructions provided, the recipient can select a delivery option and/or provide instructions for the delivery. Further, in some cases, the recipient **110** may provide instructions for future transactions. That is, recipient defined rules can be defined by the recipient **110** via one of the interfaces **136-138** or through an agent and saved by the transfer options module **145** as a delivery rule **151** for future transfers of the same type, from the same sender, for all future transfers to the recipient, etc. As noted above and depending upon the exact implementation, the delivery rules **151** can additionally or alternatively include sender defined rules, i.e., rules defined by the sender and perhaps defining restrictions or conditions of the delivery, and/or money transfer facilitator defined rules, e.g., rules defined by the money transfer facilitator based on various governmental and/or banking rules, service conditions, etc. Any or all such delivery rules **151** related to a transfer can then be applied to future/subsequent transfer transactions and the recipient can be notified by the money transfer facilitator system, e.g., by email, U.S. mail, SMS, etc. Such notification options may be defined, for example as part of an applicable delivery rule.

[0105] As noted above, a transaction identifier can be assigned or chosen for a transfer transaction. For example, the unique identifier for the receiver can be one or any combination of a mobile phone number, an email address, an instant messaging identification, a customer number, account information (e.g., stored value account identifier, bank account number and/or ABA routing number), tax number (e.g., Social Security Number or Taxpayer Identification Number), drivers' license number, state ID number, student ID number or other unique identifier. A customer number can be a preferred customer number or any other unique customer identifier issued by a money transfer facilitator, an agent of money transfer facilitator, a mobile network operator, a retailer, a bank, a service provider (e.g., payment service provider, auction service provider or Internet service provider) or any other party. This identifier can be used to identifier the sender **105**, the recipient **110**, or both and can be used by the transfer options module **145** to determine delivery of the transfer, e.g., used by the to select a delivery rule **151**, if any.

[0106] In the foregoing description, for the purposes of illustration, methods were described in a particular order. It should be appreciated that in alternate embodiments, the methods may be performed in a different order than that described. It should also be appreciated that the methods described above may be performed by hardware components or may be embodied in sequences of machine-executable instructions, which may be used to cause a machine, such as a general-purpose or special-purpose processor or logic circuits programmed with the instructions to perform the methods. These machine-executable instructions may be stored on one or more machine readable mediums, such as CD-ROMs or other type of optical disks, floppy diskettes, ROMs, RAMs, EPROMs, EEPROMs, magnetic or optical cards, flash memory, or other types of machine-readable mediums suitable for storing electronic instructions. Alternatively, the methods may be performed by a combination of hardware and software.

[0107] While illustrative and presently preferred embodiments of the invention have been described in detail herein, it is to be understood that the inventive concepts may be otherwise variously embodied and employed, and that the appended claims are intended to be construed to include such variations, except as limited by the prior art.

What is claimed is:

1. A method of supporting a money transfer transaction, the method comprising:

receiving a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction at a mobile wallet application; verifying the PIN with the mobile wallet application; and in response to verifying the PIN, sending the transaction identifier to an application of a money transfer facilitator supporting the money transfer transaction.

2. The method of claim 1, further comprising:

verifying the transaction identifier with the application of the money transfer facilitator; and in response to verifying the transaction identifier, sending a recipient identifier to the mobile wallet application, the recipient identifier indicating an intended recipient of the money transfer transaction.

3. The method of claim 2, further comprising:

receiving the recipient identifier from the application of the money transfer facilitator at the mobile wallet application;

validating the recipient identifier with the mobile wallet application; and

in response to validating the recipient identifier, sending a payment request from the mobile wallet application to the application of the money transfer facilitator.

4. The method of claim 3, further comprising:

receiving the payment request at the application of the money transfer facilitator;

completing the money transfer transaction based at least in part on the payment request; and

sending a response to the mobile wallet application from the application of the money transfer facilitator, the response indicating completion of the money transfer transaction.

5. The method of claim 4, further comprising updating a balance maintained by the mobile wallet application based on the response indicating completion of the money transfer transaction.

6. The method of claim 5, further comprising providing a notification to a user of the mobile wallet application.

7. The method of claim 6, wherein the notification indicates the updated balance.

8. The method of claim 4, wherein the payment request indicates at least one destination account for the money transfer transaction.

9. The method of claim 8, wherein completing the money transfer transaction comprises crediting the at least one destination account indicated by the payment request.

10. The method of claim 8, wherein the payment request indicates a plurality of destination accounts for the money transfer transaction.

11. The method of claim 10, wherein the payment request further indicates a distribution of funds of the money transfer transaction to each of the destination accounts.

12. The method of claim 11, wherein completing the money transfer transaction comprises crediting each of the

destination accounts indicated by the payment request based on the distribution indicated by the payment request.

13. A system comprising:

a mobile communications network;

a mobile device communicatively coupled with the mobile communications network and executing a mobile wallet application, the mobile wallet application adapted to receive a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction, verify the PIN, and in response to verifying the PIN, send the transaction identifier via the mobile communications network; and

a money transfer facilitator system communicatively coupled with the mobile communications network, the money transfer facilitator system adapted to receive the transaction identifier from the mobile wallet application, verify the transaction identifier with, and in response to verifying the transaction identifier, send a recipient identifier to the mobile wallet application via the mobile communications network, the recipient identifier indicating an intended recipient of the money transfer transaction.

14. The system of claim 13, wherein the mobile wallet application is further adapted to receive the recipient identifier from the money transfer facilitator system, validate the recipient identifier, and in response to validating the recipient identifier, send a payment request to the money transfer facilitator system.

15. The system of claim 14, wherein the money transfer facilitator system is further adapted to receive the payment request from the mobile wallet application, complete the money transfer transaction based at least in part on the payment request, and send a response to the mobile wallet application indicating completion of the money transfer transaction.

16. The system of claim 15, wherein the mobile wallet application is further adapted to update a balance maintained by the mobile wallet application based on the response indicating completion of the money transfer transaction.

17. The system of claim 16, wherein the mobile wallet application is further adapted to provide a notification to a user of the mobile wallet application.

18. The system of claim 17, wherein the notification indicates the updated balance.

19. The system of claim 15, wherein the payment request indicates at least one destination account for the money transfer transaction.

20. The system of claim 19, wherein completing the money transfer transaction comprises crediting the at least one destination account indicated by the payment request.

21. The system of claim 19, wherein the payment request indicates a plurality of destination accounts for the money transfer transaction.

22. The system of claim 21, wherein the payment request further indicates a distribution of funds of the money transfer transaction to each of the destination accounts.

23. The system of claim 22, wherein completing the money transfer transaction comprises crediting each of the destination accounts indicated by the payment request based on the distribution indicated by the payment request.

24. A system comprising:

a mobile communications network;

a mobile device communicatively coupled with the mobile communications network and executing a mobile wallet

application, the mobile wallet application adapted to receive a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction, verify the PIN, and in response to verifying the PIN, send the transaction identifier via the mobile communications network; and

- a money transfer facilitator system communicatively coupled with the mobile communications network, the money transfer facilitator system adapted to receive the transaction identifier from the mobile wallet application, verify the transaction identifier with, and in response to verifying the transaction identifier, send a recipient identifier to the mobile wallet application via the mobile communications network, the recipient identifier indicating an intended recipient of the money transfer transaction, wherein the money transfer facilitator system further comprises one or more interfaces for conducting money transfer transactions and a transfer options module communicatively coupled with the one or more interfaces and adapted to receive transaction information for a money transfer transaction from a sender through at least one or the interfaces, provide a notification of the transaction to a recipient of the transaction, and select one or more delivery options for completing the money transfer transaction.

25. A money transfer facilitator system comprising:

one or more interfaces for conducting money transfer transactions; and

a transfer options module communicatively coupled with the one or more interfaces and adapted to receive transaction information for a money transfer transaction from a sender through at least one or the interfaces, provide a notification of the transaction to a recipient of the transaction, and select one or more delivery options for completing the money transfer transaction.

26. The money transfer facilitator system of claim **25**, wherein the one or more interfaces comprise at least one of an Interactive Voice Response (IVR) interface, a web interface, an interface to an agent system, and a telephone interface to a customer service representative.

27. The money transfer facilitator system of claim **25**, wherein the delivery options comprise at least one of delivering funds to a bank account of a recipient, delivering funds to a pre-paid account, delivering funds to a funds withholding system, delivering funds to a third party, delivering a draft check, and delivering funds through an Automated Teller Machine (ATM).

28. The money transfer facilitator system of claim **25**, wherein the transfer options module receives an indication of delivery options from a recipient of the money transfer transaction and selects one or more delivery options based on the indication.

29. The money transfer facilitator system of claim **28**, wherein the money transfer options module receives the indication of delivery options from the recipient via one of the interfaces.

30. The money transfer facilitator system of claim **25**, wherein the transfer options module selects one or more delivery options based on one or more delivery rules.

31. The money transfer facilitator system of claim **30**, wherein the one or more delivery rules include at least one rule defined by a recipient of the money transfer transaction.

32. The money transfer facilitator system of claim **30**, wherein the one or more delivery rules include at least one rule defined by a sender of the money transfer transaction.

33. The money transfer facilitator system of claim **30**, wherein the one or more delivery rules include at least one rule defined by the money transfer facilitator.

34. The money transfer facilitator system of claim **29**, wherein the notification of the transaction includes an indication of one or more delivery options.

35. The money transfer facilitator system of claim **34**, wherein the transfer options module defines a delivery rule based on the indication of delivery options.

36. The money transfer facilitator system of claim **34**, wherein the transfer options module selects one or more delivery options for completing a subsequent money transfer transaction based on the delivery rule.

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